

# G W Blunn

## List of Publications by Year in descending order

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95  
papers

2,691  
citations

186254

28  
h-index

223791

46  
g-index

96  
all docs

96  
docs citations

96  
times ranked

4082  
citing authors

#	ARTICLE	IF	CITATIONS
1	Full-field strain of regenerated bone tissue in a femoral fracture model. <i>Journal of Microscopy</i> , 2022, 285, 156-166.	1.8	8
2	Novel 3D Bioglass Scaffolds for Bone Tissue Regeneration. <i>Polymers</i> , 2022, 14, 445.	4.5	20
3	Bone Bricks: The Effect of Architecture and Material Composition on the Mechanical and Biological Performance of Bone Scaffolds. <i>ACS Omega</i> , 2022, 7, 7515-7530.	3.5	11
4	In vivo evaluation of additively manufactured multi-layered scaffold for the repair of large osteochondral defects. <i>Bio-Design and Manufacturing</i> , 2022, 5, 481-496.	7.7	16
5	Influence of the Mechanical Environment on the Regeneration of Osteochondral Defects. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 603408.	4.1	43
6	Comparison of Fat Harvested from Flank and Falciform Regions for Stem Cell Therapy in Dogs. <i>Veterinary Sciences</i> , 2021, 8, 19.	1.7	3
7	Investigating the Influence of Architecture and Material Composition of 3D Printed Anatomical Design Scaffolds for Large Bone Defects. <i>International Journal of Bioprinting</i> , 2021, 7, 268.	3.4	14
8	<i>Lactobacillus</i> cell-free supernatant as a novel bioagent and biosurfactant against <i>Pseudomonas aeruginosa</i> in the prevention and treatment of orthopedic implant infection. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2021, 109, 1634-1643.	3.4	13
9	Micromechanical evaluation of cortical bone using in situ XCT indentation and digital volume correlation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 115, 104298.	3.1	12
10	Effect of Demineralized Bone Matrix, Bone Marrow Mesenchymal Stromal Cells, and Platelet-Rich Plasma on Bone Tunnel Healing After Anterior Cruciate Ligament Reconstruction: A Comparative Micro-Computed Tomography Study in a Tendon Allograft Sheep Model. <i>Orthopaedic Journal of Sports Medicine</i> , 2021, 9, 232596712110341.	1.7	4
11	Pro-angiogenic and osteogenic composite scaffolds of fibrin, alginate and calcium phosphate for bone tissue engineering. <i>Journal of Tissue Engineering</i> , 2021, 12, 204173142110056.	5.5	35
12	Sheep condyle model evaluation of bone marrow cell concentrate combined with a scaffold for repair of large osteochondral defects. <i>Bone and Joint Research</i> , 2021, 10, 677-689.	3.6	7
13	Clinical outcomes following intra-articular injection of autologous adipose-derived mesenchymal stem cells for the treatment of osteoarthritis in dogs characterized by weight-bearing asymmetry. <i>Bone and Joint Research</i> , 2021, 10, 650-658.	3.6	14
14	Clinical Cohort Study in Canine Patients, to Determine the Average Platelet and White Blood Cell Number and Its Correlation with Patient's Age, Weight, Breed and Gender: 92 Cases (2019-2020). <i>Veterinary Sciences</i> , 2021, 8, 262.	1.7	0
15	Design and In Vivo Testing of Novel Single-Stage Tendon Graft Using Polyurethane Nanocomposite Polymer for Tendon Reconstruction. <i>Journal of Plastic, Reconstructive and Aesthetic Surgery</i> , 2021, , .	1.0	2
16	A carboxymethyl cellulose bone graft carrier delays early bone healing in an ovine model. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 612-618.	3.4	2
17	Partial Bone Formation in Additive Manufactured Porous Implants Reduces Predicted Stress and Danger of Fatigue Failure. <i>Annals of Biomedical Engineering</i> , 2020, 48, 502-514.	2.5	35
18	Hierarchical electrospun tendon-ligament bioinspired scaffolds induce changes in fibroblasts morphology under static and dynamic conditions. <i>Journal of Microscopy</i> , 2020, 277, 160-169.	1.8	31

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19	The effect of strontium and silicon substituted hydroxyapatite electrochemical coatings on bone ingrowth and osseointegration of selective laser sintered porous metal implants. PLoS ONE, 2020, 15, e0227232.	2.5	23
20	Multidrug chemotherapy causes early radiological signs of loosening in distal femoral replacements. Bone and Joint Research, 2020, 9, 333-340.	3.6	6
21	Treatment of a large osseous defect in a feline tarsus using a stem cell-seeded custom implant. Journal of Tissue Engineering and Regenerative Medicine, 2020, 14, 1378-1383.	2.7	1
22	Characterisation of the tensile properties of Demineralised Cortical Bone when used as an anterior cruciate ligament allograft. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 110, 103981.	3.1	1
23	The development of a novel autologous blood glue aiming to improve osseointegration in the bone-implant interface. Bone and Joint Research, 2020, 9, 402-411.	3.6	9
24	Exploratory Full-Field Mechanical Analysis across the Osteochondral Tissue-Biomaterial Interface in an Ovine Model. Materials, 2020, 13, 3911.	2.9	5
25	Full-Field Strain Uncertainties and Residuals at the Cartilage-Bone Interface in Unstained Tissues Using Propagation-Based Phase-Contrast XCT and Digital Volume Correlation. Materials, 2020, 13, 2579.	2.9	21
26	Decellularized porcine xenograft for anterior cruciate ligament reconstruction. Bone and Joint Research, 2020, 9, 293-301.	3.6	11
27	Centre of Rotation of the Human Subtalar Joint Using Weight-Bearing Clinical Computed Tomography. Scientific Reports, 2020, 10, 1035.	3.3	30
28	Experimental Validation of an ITAP Numerical Model and the Effect of Implant Stem Stiffness on Bone Strain Energy. Annals of Biomedical Engineering, 2020, 48, 1382-1395.	2.5	12
29	Biomechanics of two external fixator devices used in rat femoral fractures. Journal of Orthopaedic Research, 2019, 37, 293-298.	2.3	3
30	The influence of gap size on the development of fracture union with a micro external fixator. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 99, 161-168.	3.1	29
31	The design and in vivo testing of a locally stiffness-matched porous scaffold. Applied Materials Today, 2019, 15, 377-388.	4.3	84
32	An experimental evaluation of fracture movement in two alternative tibial fracture fixation models using a vibrating platform. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2019, 233, 595-599.	1.8	7
33	Multiscale analyses reveal native-like lamellar bone repair and near perfect bone-contact with porous strontium-loaded bioactive glass. Biomaterials, 2019, 209, 152-162.	11.4	54
34	Non-invasive massive growing prostheses reduce infection in paediatric cancer patients. Journal of Orthopaedic Surgery, 2019, 27, 230949901983340.	1.0	4
35	Full-Field Strain Analysis of Bone-Biomaterial Systems Produced by the Implantation of Osteoregenerative Biomaterials in an Ovine Model. ACS Biomaterials Science and Engineering, 2019, 5, 2543-2554.	5.2	23
36	The influence of parathyroid hormone 1-34 on the osteogenic characteristics of adipose- and bone-marrow-derived mesenchymal stem cells from juvenile and ovariectomized rats. Bone and Joint Research, 2019, 8, 397-404.	3.6	15

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37	A novel ceramic coating for reduced metal ion release in metal-on-metal hip surgery. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1760-1771.	3.4	3
38	Individual response variations in scaffold-guided bone regeneration are determined by independent strain- and injury-induced mechanisms. Biomaterials, 2019, 194, 183-194.	11.4	63
39	CXCR4 Antagonism to Treat Delayed Fracture Healing. Tissue Engineering - Part A, 2019, 25, 1242-1250.	3.1	4
40	VEGF with AMD3100 endogenously mobilizes mesenchymal stem cells and improves fracture healing. Journal of Orthopaedic Research, 2019, 37, 1294-1302.	2.3	18
41	Revision shoulder arthroplasty for failed humeral head resurfacing hemiarthroplasty. Shoulder and Elbow, 2019, 11, 35-41.	1.5	4
42	Effect of impact assembly on the interface deformation and fretting corrosion of modular hip tapers: An in vitro study. Journal of Orthopaedic Research, 2018, 36, 405-416.	2.3	32
43	The effect of bearing surface on risk of periprosthetic joint infection in total hip arthroplasty. Bone and Joint Journal, 2018, 100-B, 134-142.	4.4	39
44	A novel adaptive algorithm for 3D finite element analysis to model extracortical bone growth. Computer Methods in Biomechanics and Biomedical Engineering, 2018, 21, 129-138.	1.6	12
45	Effect of Bearing Type on Taper Material Loss in Hips From 1 Manufacturer. Journal of Arthroplasty, 2018, 33, 1588-1593.	3.1	7
46	Antimicrobial photodynamic therapy—a promising treatment for prosthetic joint infections. Lasers in Medical Science, 2018, 33, 523-532.	2.1	55
47	<i>In vitro</i> and <i>in vivo</i> study of commercial calcium phosphate cement HydroSet <sup>®</sup> . Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 21-30.	3.4	13
48	Application of a Demineralized Cortical Bone Matrix and Bone Marrow-Derived Mesenchymal Stem Cells in a Model of Chronic Rotator Cuff Degeneration. American Journal of Sports Medicine, 2018, 46, 98-108.	4.2	40
49	Preservation of Bone Tissue Integrity with Temperature Control for In Situ SR-MicroCT Experiments. Materials, 2018, 11, 2155.	2.9	16
50	Determining the porous structure for optimal soft-tissue ingrowth: An in vivo histological study. PLoS ONE, 2018, 13, e0206228.	2.5	22
51	The influence of age and osteoporosis on bone marrow stem cells from rats. Bone and Joint Research, 2018, 7, 289-297.	3.6	22
52	Optimization of digital volume correlation computation in SR-microCT images of trabecular bone and bone-biomaterial systems. Journal of Microscopy, 2018, 272, 213-228.	1.8	49
53	Biological augmentation of graft healing in anterior cruciate ligament reconstruction. Bone and Joint Journal, 2018, 100-B, 271-284.	4.4	59
54	3D Printing and Electrospinning of Composite Hydrogels for Cartilage and Bone Tissue Engineering. Polymers, 2018, 10, 285.	4.5	142

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55	Additive manufacturing. Bone and Joint Journal, 2018, 100-B, 455-460.	4.4	29
56	Novel adaptive finite element algorithms to predict bone ingrowth in additive manufactured porous implants. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 87, 230-239.	3.1	40
57	Effect of SR-microCT radiation on the mechanical integrity of trabecular bone using in situ mechanical testing and digital volume correlation. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 88, 109-119.	3.1	55
58	Stem Cell Interventions for Bone Healing: Fractures and Osteoporosis. Current Stem Cell Research and Therapy, 2018, 13, 369-377.	1.3	22
59	Clinical relevance of corrosion patterns attributed to inflammatory cell-induced corrosion: A retrieval study. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 155-164.	3.4	32
60	Augmenting the bioactivity of polyetheretherketone using a novel accelerated neutral atom beam technique. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 1438-1446.	3.4	20
61	Controlled laser texturing of titanium results in reliable osteointegration. Journal of Orthopaedic Research, 2017, 35, 820-828.	2.3	30
62	The effect of bone growth onto massive prostheses collars in protecting the implant from fracture. Medical Engineering and Physics, 2017, 41, 19-25.	1.7	18
63	Fretting and Corrosion Between a Metal Shell and Metal Liner May Explain the High Rate of Failure of R3 Modular Metal-on-Metal Hips. Journal of Arthroplasty, 2017, 32, 1679-1683.	3.1	16
64	Parathyroid hormone 1-34 and skeletal anabolic action. Bone and Joint Research, 2017, 6, 14-21.	3.6	50
65	Augmenting the osseointegration of endoprostheses using laser-sintered porous collars. Bone and Joint Journal, 2017, 99-B, 276-282.	4.4	21
66	The <i>in vivo</i> effect of a porous titanium alloy flange with hydroxyapatite, silver and fibronectin coatings on soft-tissue integration of intraosseous transcutaneous amputation prostheses. Bone and Joint Journal, 2017, 99-B, 393-400.	4.4	16
67	Supraspinatus detachment causes musculotendinous degeneration and a reduction in bone mineral density at the enthesis in a rat model of chronic rotator cuff degeneration. Shoulder and Elbow, 2017, 9, 178-187.	1.5	23
68	The effectiveness of demineralized cortical bone matrix in a chronic rotator cuff tear model. Journal of Shoulder and Elbow Surgery, 2017, 26, 619-626.	2.6	19
69	Demineralized Bone Matrix to Augment Tendon-Bone Healing: A Systematic Review. Orthopaedic Journal of Sports Medicine, 2017, 5, 232596711773451.	1.7	22
70	In vivo biocompatibility and pacing function study of silver ion-based antimicrobial surface technology applied to cardiac pacemakers. Open Heart, 2017, 4, e000357.	2.3	9
71	Clinical Cold Welding of the Modular Total Hip Arthroplasty Prosthesis. Journal of Arthroplasty, 2017, 32, 610-615.	3.1	7
72	Variation in taper surface roughness for a single design effects the wear rate in total hip arthroplasty. Journal of Orthopaedic Research, 2017, 35, 1784-1792.	2.3	17

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73	Intrinsic Osteoinductivity of Porous Titanium Scaffold for Bone Tissue Engineering. International Journal of Biomaterials, 2017, 2017, 1-11.	2.4	54
74	Osteoporosis and ageing affects the migration of stem cells and this is ameliorated by transfection with CXCR4. Bone and Joint Research, 2017, 6, 358-365.	3.6	36
75	Nanohydroxyapatite Effect on the Degradation, Osteoconduction and Mechanical Properties of Polymeric Bone Tissue Engineered Scaffolds. The Open Orthopaedics Journal, 2016, 10, 900-919.	0.2	25
76	Tendon Reattachment to Bone in an Ovine Tendon Defect Model of Retraction Using Allogenic and Xenogenic Demineralised Bone Matrix Incorporated with Mesenchymal Stem Cells. PLoS ONE, 2016, 11, e0161473.	2.5	23
77	The effect of an alginate carrier on bone formation in a hydroxyapatite scaffold. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2016, 104, 1328-1335.	3.4	11
78	Augmentation and repair of tendons using demineralised cortical bone. BMC Musculoskeletal Disorders, 2016, 17, 483.	1.9	10
79	The effect of using components from different manufacturers on the rate of wear and corrosion of the headâ€“stem taper junction of metal-on-metal hip arthroplasties. Bone and Joint Journal, 2016, 98-B, 917-924.	4.4	12
80	Histological evaluation of two designs of shoulder surface replacement implants. Bone and Joint Journal, 2016, 98-B, 504-511.	4.4	5
81	Stability at the half pinâ€“frame interface on external fixation constructs. Strategies in Trauma and Limb Reconstruction, 2016, 11, 193-198.	0.8	0
82	Corrosion at the head-neck interface of current designs of modular femoral components. Bone and Joint Journal, 2016, 98-B, 579-584.	4.4	83
83	The Relationship Between Cobalt/Chromium Ratios and the High Prevalence of Head-Stem Junction Corrosion in Metal-on-Metal Total Hip Arthroplasty. Journal of Arthroplasty, 2016, 31, 1123-1127.	3.1	50
84	Biofilm formation in total hip arthroplasty: prevention and treatment. RSC Advances, 2016, 6, 80244-80261.	3.6	6
85	Metal-on-polyethylene versus metal-on-metal bearing surfaces in total hip arthroplasty. Bone and Joint Journal, 2015, 97-B, 1183-1191.	4.4	28
86	Role of nanopopography in the development of tissue engineered 3D organs and tissues using mesenchymal stem cells. World Journal of Stem Cells, 2015, 7, 266.	2.8	41
87	Osteoinduction of bone grafting materials for bone repair and regeneration. Bone, 2015, 81, 112-121.	2.9	469
88	Influence of stem type on material loss at the metal-on-metal pinnacle taper junction. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 91-97.	1.8	30
89	Augmentation of Rotator Cuff Repair With Soft Tissue Scaffolds. Orthopaedic Journal of Sports Medicine, 2015, 3, 232596711558749.	1.7	65
90	Lessons from retrievals: Retrievals help understand the reason for revision of coated hip arthroplasties. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 804-811.	1.8	5

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91	Preventing infection of osseointegrated transcutaneous implants: Incorporation of silver into preconditioned fibronectin-functionalized hydroxyapatite coatings suppresses <i>Staphylococcus aureus</i> colonization while promoting viable fibroblast growth <i>in vitro</i> . <i>Biointerphases</i> , 2014, 9, 031010.	1.6	15
92	In vivo roughening of retrieved total knee arthroplasty femoral components. <i>Knee</i> , 2014, 21, 278-282.	1.6	13
93	Fibronectin Functionalized Hydroxyapatite Coatings: Improving Dermal Fibroblast Adhesion In Vitro and In Vivo. <i>Advanced Engineering Materials</i> , 2010, 12, B365.	3.5	9
94	Plate Fixation of Prostheses after Segmental Resection for Bone Tumours. <i>Journal of Orthopaedic Research</i> , 2000, 18, 865-872.	2.3	12
95	STANMORE CUSTOM-MADE EXTENDIBLE DISTAL FEMORAL REPLACEMENTS. <i>Journal of Bone and Joint Surgery: British Volume</i> , 1997, 79-B, 927-937.	3.4	35