

# Tim B F Woodfield

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

116  
papers

5,665  
citations

38  
h-index

74  
g-index

129  
ext. papers

6,843  
ext. citations

7.7  
avg, IF

5.87  
L-index

#	Paper	IF	Citations
116	Next Evolution in organ-scale Biofabrication: Bioresin Design for Rapid high-resolution Vat Polymerization.. <i>Advanced Materials</i> , <b>2022</b> , e2107759	24	4
115	Hybrid biofabrication of 3D osteoconductive constructs comprising Mg-based nanocomposites and cell-laden bioinks for bone repair. <i>Bone</i> , <b>2022</b> , 154, 116198	4.7	4
114	Novel Growth Factor Combination for Improving Rotator Cuff Repair: A Rat In Vivo Study.. <i>American Journal of Sports Medicine</i> , <b>2022</b> , 3635465211072557	6.8	0
113	The advances in nanomedicine for bone and cartilage repair.. <i>Journal of Nanobiotechnology</i> , <b>2022</b> , 20, 141	9.4	3
112	High-resolution lithographic biofabrication of hydrogels with complex microchannels from low-temperature-soluble gelatin bioresins. <i>Materials Today Bio</i> , <b>2021</b> , 12, 100162	9.9	9
111	Probing Multicellular Tissue Fusion of Cocultured Spheroids-A 3D-Bioassembly Model. <i>Advanced Science</i> , <b>2021</b> , 8, e2103320	13.6	6
110	Development and Characterization of Gelatin-Norbornene Bioink to Understand the Interplay between Physical Architecture and Micro-Capillary Formation in Biofabricated Vascularized Constructs. <i>Advanced Healthcare Materials</i> , <b>2021</b> , e2101873	10.1	4
109	Biological function following radical photo-polymerization of biomedical polymers and surrounding tissues: Design considerations and cellular risk factors. <i>Applied Physics Reviews</i> , <b>2021</b> , 8, 011301	17.3	7
108	Light-Activated Decellularized Extracellular Matrix-Based Bioinks for Volumetric Tissue Analogs at the Centimeter Scale. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2011252	15.6	23
107	Overcoming functional challenges in autologous and engineered fat grafting trends. <i>Trends in Biotechnology</i> , <b>2021</b> ,	15.1	2
106	Spectral CT imaging of human osteoarthritic cartilage via quantitative assessment of glycosaminoglycan content using multiple contrast agents. <i>APL Bioengineering</i> , <b>2021</b> , 5, 026101	6.6	2
105	Effect of Photoinitiator on Precursory Stability and Curing Depth of Thiol-Ene Clickable Gelatin. <i>Polymers</i> , <b>2021</b> , 13,	4.5	8
104	Surface finishing of additively manufactured stainless steel surgical instruments. <i>Rapid Prototyping Journal</i> , <b>2021</b> , 27, 59-70	3.8	2
103	Impact of COVID-19 on health research in New Zealand: a case study of a research-intensive campus. <i>Journal of the Royal Society of New Zealand</i> , <b>2021</b> , 51, S75-S85	2	2
102	A Smartphone-Enabled Portable Digital Light Processing 3D Printer. <i>Advanced Materials</i> , <b>2021</b> , 33, e2102153	15.3	15
101	Injection-Free Delivery of MSC-Derived Extracellular Vesicles for Myocardial Infarction Therapeutics. <i>Advanced Healthcare Materials</i> , <b>2021</b> , e2100312	10.1	7
100	Allogeneic mesenchymal stromal cells for cartilage regeneration: A review of in vitro evaluation, clinical experience, and translational opportunities. <i>Stem Cells Translational Medicine</i> , <b>2021</b> , 10, 1500-1515	6.9	3

99	Strategies for inclusion of growth factors into 3D printed bone grafts. <i>Essays in Biochemistry</i> , <b>2021</b> , 65, 569-585	7.6	2
98	Converging functionality: Strategies for 3D hybrid-construct biofabrication and the role of composite biomaterials for skeletal regeneration. <i>Acta Biomaterialia</i> , <b>2021</b> , 132, 188-216	10.8	7
97	A Smartphone-Enabled Portable Digital Light Processing 3D Printer (Adv. Mater. 35/2021). <i>Advanced Materials</i> , <b>2021</b> , 33, 2170271	24	1
96	MI192 induced epigenetic reprogramming enhances the therapeutic efficacy of human bone marrows stromal cells for bone regeneration. <i>Bone</i> , <b>2021</b> , 153, 116138	4.7	6
95	Small but significant: Insights and new perspectives of exosomes in cardiovascular disease. <i>Journal of Cellular and Molecular Medicine</i> , <b>2020</b> , 24, 8291-8303	5.6	17
94	Rational design, bio-functionalization and biological performance of hybrid additive manufactured titanium implants for orthopaedic applications: A review. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 105, 103671	4.1	56
93	Combined Infection Control and Enhanced Osteogenic Differentiation Capacity on Additive Manufactured Ti-6Al-4V are Mediated via Titania Nanotube Delivery of Novel Biofilm Inhibitors. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 1901963	4.6	10
92	Rapid Photocrosslinking of Silk Hydrogels with High Cell Density and Enhanced Shape Fidelity. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901667	10.1	45
91	Advances in Extrusion 3D Bioprinting: A Focus on Multicomponent Hydrogel-Based Bioinks. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901648	10.1	85
90	How do 3D-printed primary uncemented acetabular components compare with established uncemented acetabular cups? The experience of the New Zealand National Joint Registry. <i>HIP International</i> , <b>2020</b> , 1120700020918233	1.7	1
89	Advances in Hybrid Fabrication toward Hierarchical Tissue Constructs. <i>Advanced Science</i> , <b>2020</b> , 7, 1902953	5.6	52
88	One-Step Photoactivation of a Dual-Functionalized Bioink as Cell Carrier and Cartilage-Binding Glue for Chondral Regeneration. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901792	10.1	25
87	Stepwise Control of Crosslinking in a One-Pot System for Bioprinting of Low-Density Bioinks. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e1901544	10.1	24
86	Hydrodynamic control of titania nanotube formation on Ti-6Al-4V alloys enhances osteogenic differentiation of human mesenchymal stromal cells. <i>Materials Science and Engineering C</i> , <b>2020</b> , 109, 110562	8.3	14
85	Design and characterisation of multi-functional strontium-gelatin nanocomposite bioinks with improved print fidelity and osteogenic capacity. <i>Bioprinting</i> , <b>2020</b> , 18, e00073	7	39
84	Silk fibroin photo-lyogels containing microchannels as a biomaterial platform for tissue engineering. <i>Biomaterials Science</i> , <b>2020</b> , 8, 7093-7105	7.4	6
83	Visible light mediated PVA-tyramine hydrogels for covalent incorporation and tailorable release of functional growth factors. <i>Biomaterials Science</i> , <b>2020</b> , 8, 5005-5019	7.4	8
82	Fundamentals and Applications of Photo-Cross-Linking in Bioprinting. <i>Chemical Reviews</i> , <b>2020</b> , 120, 10668-10694	21.5	145

81	New Frontiers for Biofabrication and Bioreactor Design in Microphysiological System Development. <i>Trends in Biotechnology</i> , <b>2019</b> , 37, 1327-1343	15.1	20
80	Microchannels in Development, Survival, and Vascularisation of Tissue Analogues for Regenerative Medicine. <i>Trends in Biotechnology</i> , <b>2019</b> , 37, 1189-1201	15.1	38
79	Osteogenic and angiogenic tissue formation in high fidelity nanocomposite Laponite-gelatin bioinks. <i>Biofabrication</i> , <b>2019</b> , 11, 035027	10.5	85
78	Visible Light Cross-Linking of Gelatin Hydrogels Offers an Enhanced Cell Microenvironment with Improved Light Penetration Depth. <i>Macromolecular Bioscience</i> , <b>2019</b> , 19, e1900098	5.5	63
77	A Versatile Biosynthetic Hydrogel Platform for Engineering of Tissue Analogues. <i>Advanced Healthcare Materials</i> , <b>2019</b> , 8, e1900979	10.1	34
76	Biaxial mechanics of 3D fiber deposited ply-laminate scaffolds for soft tissue engineering part I: Experimental evaluation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 98, 317-326	4.1	5
75	Intact vitreous humor as a potential extracellular matrix hydrogel for cartilage tissue engineering applications. <i>Acta Biomaterialia</i> , <b>2019</b> , 85, 117-130	10.8	17
74	Biofilm Inhibition via Delivery of Novel Methylthioadenosine Nucleosidase Inhibitors from PVA-Tyramine Hydrogels while Supporting Mesenchymal Stromal Cell Viability. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 748-758	5.5	5
73	Bio-resin for high resolution lithography-based biofabrication of complex cell-laden constructs. <i>Biofabrication</i> , <b>2018</b> , 10, 034101	10.5	135
72	Is tranexamic acid toxic to articular cartilage when administered topically? What is the safe dose?. <i>Bone and Joint Journal</i> , <b>2018</b> , 100-B, 404-412	5.6	39
71	Engineering of a complex bone tissue model with endothelialised channels and capillary-like networks. <i>European Cells and Materials</i> , <b>2018</b> , 35, 335-348	4.3	27
70	A 96-well microplate bioreactor platform supporting individual dual perfusion and high-throughput assessment of simple or biofabricated 3D tissue models. <i>Lab on A Chip</i> , <b>2018</b> , 18, 2757-2775	7.2	31
69	A definition of bioinks and their distinction from biomaterial inks. <i>Biofabrication</i> , <b>2018</b> , 11, 013001	10.5	273
68	Automated 3D bioassembly of micro-tissues for biofabrication of hybrid tissue engineered constructs. <i>Biofabrication</i> , <b>2018</b> , 10, 024103	10.5	98
67	Biofabrication: A Guide to Technology and Terminology. <i>Trends in Biotechnology</i> , <b>2018</b> , 36, 384-402	15.1	309
66	First human imaging with MARS photon-counting CT <b>2018</b> ,		7
65	<b>2018</b> ,		2
64	MARS-MD: rejection based image domain material decomposition. <i>Journal of Instrumentation</i> , <b>2018</b> , 13, P05020-P05020	1	17

63	Measuring Identification and Quantification Errors in Spectral CT Material Decomposition. <i>Applied Sciences (Switzerland)</i> , <b>2018</b> , 8, 467	2.6	9
62	Growth Factor Delivery Systems for Tissue Engineering and Regenerative Medicine. <i>Advances in Experimental Medicine and Biology</i> , <b>2018</b> , 1078, 245-269	3.6	14
61	Quantitative imaging of excised osteoarthritic cartilage using spectral CT. <i>European Radiology</i> , <b>2017</b> , 27, 384-392	8	27
60	Modular Tissue Assembly Strategies for Biofabrication of Engineered Cartilage. <i>Annals of Biomedical Engineering</i> , <b>2017</b> , 45, 100-114	4.7	55
59	Establishing a method to measure bone structure using spectral CT <b>2017</b> ,		1
58	Development and validation of an acoustic emission device to measure wear in total hip replacements in-vitro and in-vivo. <i>Biomedical Signal Processing and Control</i> , <b>2017</b> , 33, 281-288	4.9	9
57	Covalent Incorporation of Heparin Improves Chondrogenesis in Photocurable Gelatin-Methacryloyl Hydrogels. <i>Macromolecular Bioscience</i> , <b>2017</b> , 17, 1700158	5.5	40
56	Thiol-Ene Clickable Gelatin: A Platform Bioink for Multiple 3D Biofabrication Technologies. <i>Advanced Materials</i> , <b>2017</b> , 29, 1703404	24	164
55	Signal processing and event detection of hip implant acoustic emissions. <i>Control Engineering Practice</i> , <b>2017</b> , 58, 287-297	3.9	7
54	Squeaking in ceramic-on-ceramic hips: No evidence of contribution from the trunnion Morse taper. <i>Journal of Orthopaedic Research</i> , <b>2017</b> , 35, 1793-1798	3.8	2
53	Cepstrum Analysis for Determining the Fundamental Frequency of Total Hip Replacement Acoustic Emissions. <i>IFAC-PapersOnLine</i> , <b>2017</b> , 50, 9932-9937	0.7	1
52	5.14 Biofabrication in Tissue Engineering <b>2017</b> , 236-266		22
51	New Visible-Light Photoinitiating System for Improved Print Fidelity in Gelatin-Based Bioinks. <i>ACS Biomaterials Science and Engineering</i> , <b>2016</b> , 2, 1752-1762	5.5	182
50	Three-dimensional assembly of tissue-engineered cartilage constructs results in cartilaginous tissue formation without retainment of zonal characteristics. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2016</b> , 10, 315-24	4.4	24
49	Biofabrication: reappraising the definition of an evolving field. <i>Biofabrication</i> , <b>2016</b> , 8, 013001	10.5	387
48	Additive Manufacturing of a Photo-Cross-Linkable Polymer via Direct Melt Electrospinning Writing for Producing High Strength Structures. <i>Biomacromolecules</i> , <b>2016</b> , 17, 208-14	6.9	75
47	Return to work for severely injured survivors of the Christchurch earthquake: influences in the first 2 years. <i>Disability and Rehabilitation</i> , <b>2016</b> , 38, 987-93	2.4	3
46	The importance of connexin hemichannels during chondroprogenitor cell differentiation in hydrogel versus microtissue culture models. <i>Tissue Engineering - Part A</i> , <b>2015</b> , 21, 1785-94	3.9	24

45	Positive and negative bioimprinted polymeric substrates: new platforms for cell culture. <i>Biofabrication</i> , <b>2015</b> , 7, 025002	10.5	21
44	Optimizing porous lattice structures for orthopaedic implants. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 2450-3	0.9	
43	The rates of wear of X3 highly cross-linked polyethylene at five years when coupled with a 36 mm diameter ceramic femoral head in young patients. <i>Bone and Joint Journal</i> , <b>2015</b> , 97-B, 1470-4	5.6	14
42	Participation and quality of life outcomes among individuals with earthquake-related physical disability: A systematic review. <i>Journal of Rehabilitation Medicine</i> , <b>2015</b> , 47, 385-93	3.4	6
41	Monetite and brushite coated magnesium: in vivo and in vitro models for degradation analysis. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2014</b> , 25, 173-83	4.5	28
40	Magnesium biomaterials for orthopedic application: a review from a biological perspective. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2014</b> , 102, 1316-31	3.5	184
39	The in vitro and in vivo evaluation of the biocompatibility of Mg alloys. <i>Biomedical Materials (Bristol)</i> , <b>2014</b> , 9, 015006	3.5	28
38	Reducing beam hardening effects and metal artefacts in spectral CT using Medipix3RX. <i>Journal of Instrumentation</i> , <b>2014</b> , 9, P03015-P03015	1	22
37	MARS spectral molecular imaging of lamb tissue: data collection and image analysis. <i>Journal of Instrumentation</i> , <b>2014</b> , 9, P02005-P02005	1	32
36	Topology Optimization of Porous Lattice Structures for Orthopaedic Implants. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2014</b> , 47, 9907-9912		6
35	Acoustic Emission Monitoring of Total Hip Arthroplasty Implants. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2014</b> , 47, 4796-4800		7
34	Scaffold Design and Fabrication <b>2014</b> , 311-346		22
33	Tissue-engineered constructs: the effect of scaffold architecture in osteochondral repair. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2013</b> , 7, 751-6	4.4	27
32	Stage-specific embryonic antigen-4 is not a marker for chondrogenic and osteogenic potential in cultured chondrocytes and mesenchymal progenitor cells. <i>Tissue Engineering - Part A</i> , <b>2013</b> , 19, 1316-26	3.9	13
31	Measurement of early wear rates with X3 polyethylene and 36-mm femoral heads in young patients in a prospective study. <i>Current Orthopaedic Practice</i> , <b>2013</b> , 24, 641-646	0.4	2
30	Buffer-regulated biocorrosion of pure magnesium. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2012</b> , 23, 283-91	4.5	61
29	Injection system for cellular assembly of 3D bio-tissue engineered constructs <b>2012</b> ,		2
28	Controlling in vitro corrosion rate of pure Mg with rough surface texture via biomimetic coating systems. <i>Corrosion Engineering Science and Technology</i> , <b>2012</b> , 47, 358-364	1.7	4

27	Magnesium alloys: predicting in vivo corrosion with in vitro immersion testing. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2012</b> , 100, 1134-41	3.5	142
26	On the role of surface roughness in the corrosion of pure magnesium in vitro. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2012</b> , 100, 1310-8	3.5	23
25	Validation of a high-throughput microtissue fabrication process for 3D assembly of tissue engineered cartilage constructs. <i>Cell and Tissue Research</i> , <b>2012</b> , 347, 629-642	4.2	47
24	The early radiological results of the uncemented Oxford medial compartment knee replacement. <i>Journal of Bone and Joint Surgery: British Volume</i> , <b>2012</b> , 94, 334-8		25
23	Improving in vitro corrosion resistance of biomimetic calcium phosphate coatings for Mg substrates using calcium hydroxide layer. <i>Corrosion Engineering Science and Technology</i> , <b>2012</b> , 47, 340-345	1.7	13
22	Fabrication of polymeric substrates with micro- and nanoscale topography bioimprinted at progressive cell morphologies. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2012</b> , 30, 06F902	1.3	4
21	Tissue Attenuation Characteristics of Acoustic Emission Signals for Wear and Degradation of Total Hip Arthroplasty Implants. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , <b>2012</b> , 45, 355-360		5
20	Synthesis and properties of topologically ordered porous magnesium. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2011</b> , 176, 1666-1672	3.1	48
19	Corrosion resistance of biomimetic calcium phosphate coatings on magnesium due to varying pretreatment time. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2011</b> , 176, 1756-1760	3.1	50
18	A Novel Manufacturing Route for Fabrication of Topologically-Ordered Porous Magnesium Scaffolds. <i>Advanced Engineering Materials</i> , <b>2011</b> , 13, 872-881	3.5	57
17	Integrated system for 3D assembly of bio-scaffolds and cells <b>2010</b> ,		7
16	Orientation imaging microscopy of polycrystalline sodium chloride. <i>Materials Characterization</i> , <b>2010</b> , 61, 413-419	3.9	8
15	Synthesis of topologically-ordered open-cell porous magnesium. <i>Materials Letters</i> , <b>2010</b> , 64, 2572-2574	3.3	57
14	In-vitro dissolution of magnesium-calcium binary alloys: clarifying the unique role of calcium additions in bioresorbable magnesium implant alloys. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2010</b> , 95, 91-100	3.5	155
13	PROCESSING-PROPERTY RELATIONSHIPS OF AS-CAST MAGNESIUM FOAMS WITH CONTROLLABLE ARCHITECTURE. <i>International Journal of Modern Physics B</i> , <b>2009</b> , 23, 1002-1008	1.1	22
12	Combinatorial approaches to controlling cell behaviour and tissue formation in 3D via rapid-prototyping and smart scaffold design. <i>Combinatorial Chemistry and High Throughput Screening</i> , <b>2009</b> , 12, 562-79	1.3	38
11	Rapid prototyping of anatomically shaped, tissue-engineered implants for restoring congruent articulating surfaces in small joints. <i>Cell Proliferation</i> , <b>2009</b> , 42, 485-97	7.9	59
10	Scaffold design and fabrication <b>2008</b> , 403-454		30



9	Cell nutrition <b>2008</b> , 327-362		5
8	The regulation of expanded human nasal chondrocyte re-differentiation capacity by substrate composition and gas plasma surface modification. <i>Biomaterials</i> , <b>2006</b> , 27, 1043-53	15.6	72
7	Predictive value of in vitro and in vivo assays in bone and cartilage repair--what do they really tell us about the clinical performance?. <i>Advances in Experimental Medicine and Biology</i> , <b>2006</b> , 585, 327-60	3.6	37
6	Polymer scaffolds fabricated with pore-size gradients as a model for studying the zonal organization within tissue-engineered cartilage constructs. <i>Tissue Engineering</i> , <b>2005</b> , 11, 1297-311		229
5	The effect of PEGT/PBT scaffold architecture on the composition of tissue engineered cartilage. <i>Biomaterials</i> , <b>2005</b> , 26, 63-72	15.6	206
4	Effects of scaffold composition and architecture on human nasal chondrocyte redifferentiation and cartilaginous matrix deposition. <i>Biomaterials</i> , <b>2005</b> , 26, 2479-89	15.6	137
3	Design of porous scaffolds for cartilage tissue engineering using a three-dimensional fiber-deposition technique. <i>Biomaterials</i> , <b>2004</b> , 25, 4149-61	15.6	532
2	The effect of PEGT/PBT scaffold architecture on oxygen gradients in tissue engineered cartilaginous constructs. <i>Biomaterials</i> , <b>2004</b> , 25, 5773-80	15.6	168
1	Scaffolds for tissue engineering of cartilage. <i>Critical Reviews in Eukaryotic Gene Expression</i> , <b>2002</b> , 12, 209-36	1.3	98