Timothy Douglas

List of Publications by Year in Descending Order

75 papers	1,870 citations	25 h-index	41 g-index
78 ext. papers	2,176 ext. citations	5 avg, IF	4.71 L-index

#	Paper	IF	Citations
75	The influence of Ca/Mg ratio on autogelation of hydrogel biomaterials with bioceramic compounds.. *Materials Science and Engineering C*, **2022**, 112632	8.3	1
74	Freeze-Dried Curdlan/Whey Protein Isolate-Based Biomaterial as Promising Scaffold for Matrix-Associated Autologous Chondrocyte Transplantation-A Pilot In-Vitro Study.. *Cells*, **2022**, 11,	7.9	1
73	Complex Material and Surface Analysis of Anterolateral Distal Tibial Plate of 1.4441 Steel. *Metals*, **2022**, 12, 60	2.3	1
72	Newly crosslinked chitosan- and chitosan-pectin-based hydrogels with high antioxidant and potential anticancer activity.. *Carbohydrate Polymers*, **2022**, 290, 119486	10.3	1
71	Biomimetic biphasic curdlan-based scaffold for osteochondral tissue engineering applications Characterization and preliminary evaluation of mesenchymal stem cell response in vitro **2022**, 212724		1
70	WPI Hydrogels with a Prolonged Drug-Release Profile for Antimicrobial Therapy. *Pharmaceutics*, **2022**, 14, 1199	6.4	
69	Electron Beam-Treated Enzymatically Mineralized Gelatin Hydrogels for Bone Tissue Engineering. *Journal of Functional Biomaterials*, **2021**, 12,	4.8	1
68	Composites Based on Hydroxyapatite and Whey Protein Isolate for Applications in Bone Regeneration. *Materials*, **2021**, 14,	3.5	5
67	Modification of heat-induced whey protein isolate hydrogel with highly bioactive glass particles results in promising biomaterial for bone tissue engineering. *Materials and Design*, **2021**, 205, 109749	8.1	3
66	pH-Sensitive Dairy-Derived Hydrogels with a Prolonged Drug Release Profile for Cancer Treatment. *Materials*, **2021**, 14,	3.5	3
65	Amine-Rich Coatings to Potentially Promote Cell Adhesion, Proliferation and Differentiation, and Reduce Microbial Colonization: Strategies for Generation and Characterization. *Coatings*, **2021**, 11, 983	2.9	1
64	Phloroglucinol-enhanced whey protein isolate hydrogels with antimicrobial activity for tissue engineering. *Materials Science and Engineering C*, **2021**, 129, 112412	8.3	1
63	Marine-Inspired Enzymatic Mineralization of Dairy-Derived Whey Protein Isolate (WPI) Hydrogels for Bone Tissue Regeneration. *Marine Drugs*, **2020**, 18,	6	2
62	Enhancement of Biomimetic Enzymatic Mineralization of Gellan Gum Polysaccharide Hydrogels by Plant-Derived Gallotannins. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	9
61	Novel naturally derived whey protein isolate and aragonite biocomposite hydrogels have potential for bone regeneration. *Materials and Design*, **2020**, 188, 108408	8.1	14
60	Novel whey protein isolate-based highly porous scaffolds modified with therapeutic ion-releasing bioactive glasses. *Materials Letters*, **2020**, 261, 127115	3.3	9
59	Dairy-Inspired Coatings for Bone Implants from Whey Protein Isolate-Derived Self-Assembled Fibrils. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	5

58	Phenolic-Enriched Collagen Fibrillar Coatings on Titanium Alloy to Promote Osteogenic Differentiation and Reduce Inflammation. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	6
57	Marine Polysaccharide-Collagen Coatings on Ti6Al4V Alloy Formed by Self-Assembly. *Micromachines*, **2019**, 10,	3.3	3
56	Hierarchy of Hybrid Materials-The Place of Inorganics--Organics in it, Their Composition and Applications. *Frontiers in Chemistry*, **2019**, 7, 179	5	119
55	Novel multicomponent organic-inorganic WPI/gelatin/CaP hydrogel composites for bone tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 2479-2491	5.4	16
54	Electrospun polycaprolactone membranes with Zn-doped bioglass for nasal tissues treatment. *Journal of Materials Science: Materials in Medicine*, **2019**, 30, 80	4.5	21
53	Pectin-bioactive glass self-gelling, injectable composites with high antibacterial activity. *Carbohydrate Polymers*, **2019**, 205, 427-436	10.3	27
52	Novel injectable gellan gum hydrogel composites incorporating Zn- and Sr-enriched bioactive glass microparticles: High-resolution X-ray microcomputed tomography, antibacterial and in vitro testing. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 1313-1326	4.4	22
51	A new insight into in vitro behaviour of poly(ε-caprolactone)/bioactive glass composites in biologically related fluids. *Journal of Materials Science*, **2018**, 53, 3939-3958	4.3	20
50	A simple way of modulating in vitro angiogenic response using Cu and Co-doped bioactive glasses. *Materials Letters*, **2018**, 215, 87-90	3.3	13
49	Ulvan-chitosan polyelectrolyte complexes as matrices for enzyme induced biomimetic mineralization. *Carbohydrate Polymers*, **2018**, 182, 254-264	10.3	36
48	Mineralization of gellan gum hydrogels with calcium and magnesium carbonates by alternate soaking in solutions of calcium/magnesium and carbonate ion solutions. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 1825-1834	4.4	13
47	Novel self-gelling injectable hydrogel/alpha-tricalcium phosphate composites for bone regeneration: Physiochemical and microcomputer tomographical characterization. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 822-828	5.4	27
46	ANN prediction of corrosion behaviour of uncoated and biopolymers coated cp-Titanium substrates. *Materials and Design*, **2018**, 157, 35-51	8.1	17
45	Morphological, Mechanical and Mucoadhesive Properties of Electrospun Chitosan/Phospholipid Hybrid Nanofibers. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	28
44	Phytase-mediated enzymatic mineralization of chitosan-enriched hydrogels. *Materials Letters*, **2018**, 214, 186-189	3.3	3
43	Application of whey protein isolate in bone regeneration: Effects on growth and osteogenic differentiation of bone-forming cells. *Journal of Dairy Science*, **2018**, 101, 28-36	4	25
42	Whey Protein Complexes with Green Tea Polyphenols: Antimicrobial, Osteoblast-Stimulatory, and Antioxidant Activities. *Cells Tissues Organs*, **2018**, 206, 106-118	2.1	12
41	Effect of low-temperature plasma treatment of electrospun polycaprolactone fibrous scaffolds on calcium carbonate mineralisation.. *RSC Advances*, **2018**, 8, 39106-39114	3.7	23

40	Electrospun Produced 3D Matrices for Covering of Vascular Stents: Paclitaxel Release Depending on Fiber Structure and Composition of the External Environment. *Materials*, **2018**, 11,	3.5	10
39	Pectin coatings on titanium alloy scaffolds produced by additive manufacturing: Promotion of human bone marrow stromal cell proliferation. *Materials Letters*, **2018**, 227, 225-228	3.3	12
38	Composites of gellan gum hydrogel enzymatically mineralized with calcium-zinc phosphate for bone regeneration with antibacterial activity. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 1610-1618	4.4	22
37	Enzymatically biomineralized chitosan scaffolds for tissue-engineering applications. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 1500-1513	4.4	19
36	Ca:Mg:Zn:CO and Ca:Mg:CO-tri- and bi-elemental carbonate microparticles for novel injectable self-gelling hydrogel-microparticle composites for tissue regeneration. *Biomedical Materials (Bristol)*, **2017**, 12, 025015	3.5	11
35	Enzymatic, urease-mediated mineralization of gellan gum hydrogel with calcium carbonate, magnesium-enriched calcium carbonate and magnesium carbonate for bone regeneration applications. *Journal of Tissue Engineering and Regenerative Medicine*, **2017**, 11, 3556-3566	4.4	25
34	Titanium surface functionalization with coatings of chitosan and polyphenol-rich plant extracts. *Materials Letters*, **2017**, 196, 213-216	3.3	17
33	Vaterite coatings on electrospun polymeric fibers for biomedical applications. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 94-103	5.4	39
32	Biodegradable ceramic-polymer composites for biomedical applications: A review. *Materials Science and Engineering C*, **2017**, 71, 1175-1191	8.3	116
31	Chitosan hydrogels enriched with polyphenols: Antibacterial activity, cell adhesion and growth and mineralization. *Carbohydrate Polymers*, **2015**, 129, 135-42	10.3	30
30	Development of thermosensitive hydrogels of chitosan, sodium and magnesium glycerophosphate for bone regeneration applications. *Journal of Functional Biomaterials*, **2015**, 6, 192-203	4.8	15
29	Pulsed laser deposition of magnesium-doped calcium phosphate coatings on porous polycaprolactone scaffolds produced by rapid prototyping. *Materials Letters*, **2015**, 148, 178-183	3.3	16
28	Biofunctionalization of poly(l-lactide-co-glycolide) by post-plasma grafting of 2-aminoethyl methacrylate and gelatin immobilization. *Materials Letters*, **2015**, 139, 344-347	3.3	6
27	Collagen-lactoferrin fibrillar coatings enhance osteoblast proliferation and differentiation. *Journal of Biomedical Materials Research - Part A*, **2015**, 103, 525-33	5.4	18
26	Composites of polyvinyl alcohol (PVA) hydrogel and calcium and magnesium phosphate formed by enzymatic functionalization. *Materials Letters*, **2014**, 137, 62-67	3.3	8
25	Injectable self-gelling composites for bone tissue engineering based on gellan gum hydrogel enriched with different bioglasses. *Biomedical Materials (Bristol)*, **2014**, 9, 045014	3.5	47
24	Polylactide nanofibers with hydroxyapatite as growth substrates for osteoblast-like cells. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 3918-30	5.4	28
23	Additive manufacturing of cell-loaded alginate enriched with alkaline phosphatase for bone tissue engineering application. *BioNanoMaterials*, **2014**, 15,		12

22	Enrichment of chitosan hydrogels with perfluorodecalin promotes gelation and stem cell vitality. *Materials Letters*, **2014**, 128, 79-84	3.3	16
21	Magnesium-enhanced enzymatically mineralized platelet-rich fibrin for bone regeneration applications. *Biomedical Materials (Bristol)*, **2013**, 8, 055001	3.5	15
20	Acceleration of gelation and promotion of mineralization of chitosan hydrogels by alkaline phosphatase. *International Journal of Biological Macromolecules*, **2013**, 56, 122-32	7.9	36
19	Biomimetic Mineralization of Hydrogel Biomaterials for Bone Tissue Engineering **2013**, 51-67		
18	Nanofibrous poly(lactide-co-glycolide) membranes loaded with diamond nanoparticles as promising substrates for bone tissue engineering. *International Journal of Nanomedicine*, **2012**, 7, 1931-51	7.3	38
17	Enzymatic mineralization of hydrogels for bone tissue engineering by incorporation of alkaline phosphatase. *Macromolecular Bioscience*, **2012**, 12, 1077-89	5.5	66
16	Enzymatically induced mineralization of platelet-rich fibrin. *Journal of Biomedical Materials Research - Part A*, **2012**, 100, 1335-46	5.4	23
15	Comparison of in vitro biocompatibility of NanoBone( ) and BioOss( ) for human osteoblasts. *Clinical Oral Implants Research*, **2011**, 22, 1259-64	4.8	32
14	Novel ceramic bone replacement material CeraBall seeded with human mesenchymal stem cells. *Clinical Oral Implants Research*, **2010**, 21, 262-7	4.8	10
13	Hydrostatic pressure stimulation of human mesenchymal stem cells seeded on collagen-based artificial extracellular matrices. *Journal of Biomechanical Engineering*, **2010**, 132, 021001	2.1	26
12	Mineralization of hydrogels for bone regeneration. *Tissue Engineering - Part B: Reviews*, **2010**, 16, 577-85	7.9	171
11	Glucuronic acid and phosphoserine act as mineralization mediators of collagen I based biomimetic substrates. *Journal of Materials Science: Materials in Medicine*, **2010**, 21, 407-18	4.5	7
10	Ceramic scaffolds produced by computer-assisted 3D printing and sintering: characterization and biocompatibility investigations. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2010**, 93, 212-7	3.5	57
9	Porous polymer/hydroxyapatite scaffolds: characterization and biocompatibility investigations. *Journal of Materials Science: Materials in Medicine*, **2009**, 20, 1909-15	4.5	40
8	Tissue engineering of periosteal cell membranes in vitro. *Clinical Oral Implants Research*, **2009**, 20, 761-6	4.8	28
7	Unilateral atrophy of the cheek: autologous fat injection as treatment of choice. *Journal of Craniofacial Surgery*, **2009**, 20, 423-5	1.2	5
6	Characterization of collagen II fibrils containing biglycan and their effect as a coating on osteoblast adhesion and proliferation. *Journal of Materials Science: Materials in Medicine*, **2008**, 19, 1653-60	4.5	25
5	Influence of collagen-fibril-based coatings containing decorin and biglycan on osteoblast behavior. *Journal of Biomedical Materials Research - Part A*, **2008**, 84, 805-16	5.4	27

4	Interactions of collagen types I and II with chondroitin sulfates A-C and their effect on osteoblast adhesion. *Biomacromolecules*, **2007**, 8, 1085-92	6.9	72
3	Collageneous matrix coatings on titanium implants modified with decorin and chondroitin sulfate: characterization and influence on osteoblastic cells. *Journal of Biomedical Materials Research - Part A*, **2006**, 77, 551-62	5.4	93
2	Fibrillogenesis of collagen types I, II, and III with small leucine-rich proteoglycans decorin and biglycan. *Biomacromolecules*, **2006**, 7, 2388-93	6.9	127
1	Hydroxyapatite Crystal Growth on Modified Collagen I-Templates in a Model Dual Membrane Diffusion System. *Zeitschrift Fur Anorganische Und Allgemeine Chemie*, **2005**, 631, 1825-1830	1.3	16