Stephen D Waldman, Peng

List of Publications by Year
in descending order

113 papers	3,390 citations	186265 28 h-index	168389 53 g-index
113 all docs	113 docs citations	113 times ranked	3986 citing authors

#	Article	IF	Citations
1	Generation of double-layered equine mesenchymal stromal cell-derived osteochondral constructs. Journal of Cartilage & Joint Preservation, 2022, , 100036.	0.5	0
2	Lithium chloride-induced primary cilia recovery enhances biosynthetic response of chondrocytes to mechanical stimulation. Biomechanics and Modeling in Mechanobiology, 2022, 21, 605-614.	2.8	5
3	Human-engineered auricular reconstruction (hEAR) by 3D-printed molding with human-derived auricular and costal chondrocytes and adipose-derived mesenchymal stem cells. Biofabrication, 2022, 14, 015010.	7.1	11
4	TRPV4 activation enhances compressive properties and glycosaminoglycan deposition of equine neocartilage sheets. Osteoarthritis and Cartilage Open, 2022, 4, 100263.	2.0	1
5	Cell Cycle Synchronization of Primary Articular Chondrocytes Enhances Chondrogenesis. Cartilage, 2021, 12, 526-535.	2.7	3
6	Tantalum-containing mesoporous bioactive glass powder for hemostasis. Journal of Biomaterials Applications, 2021, 35, 924-932.	2.4	13
7	Characterization of Mechanical and Dielectric Properties of Silicone Rubber. Polymers, 2021, 13, 1831.	4.5	23
8	Effect of nutrient metabolism on cartilaginous tissue formation. Biotechnology and Bioengineering, 2021, 118, 4119-4128.	3.3	5
9	Comparative Evaluation of Two Glass Polyalkenoate Cements: An In Vivo Pilot Study Using a Sheep Model. Journal of Functional Biomaterials, 2021, 12, 44.	4.4	1
10	In vitro evaluation of novel titaniaâ€containing borate bioactive glass scaffolds. Journal of Biomedical Materials Research - Part A, 2021, 109, 146-158.	4.0	11
11	Effect of TiO2 doping on degradation rate, microstructure and strength of borate bioactive glass scaffolds. Materials Science and Engineering C, 2020, 107, 110351.	7.3	11
12	Calcium sulfateâ€containing glass polyalkenoate cement for revision total knee arthroplasty fixation. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 3356-3369.	3.4	2
13	The Role of Poly(Methyl Methacrylate) in Management of Bone Loss and Infection in Revision Total Knee Arthroplasty: A Review. Journal of Functional Biomaterials, 2020, 11, 25.	4.4	17
14	Optimization of culture media to enhance the growth of tissue engineered cartilage. Biotechnology Progress, 2020, 36, e3017.	2.6	1
15	A review of materials for managing bone loss in revision total knee arthroplasty. Materials Science and Engineering C, 2019, 104, 109941.	7.3	16
16	Advanced cell culture platforms: a growing quest for emulating natural tissues. Materials Horizons, 2019, 6, 45-71.	12.2	114
17	Characterization of a novel decellularized bone marrow scaffold as an inductive environment for hematopoietic stem cells. Biomaterials Science, 2019, 7, 1516-1528.	5.4	23
18	Engineering of scaffoldâ€free triâ€layered auricular tissues for external ear reconstruction. Laryngoscope, 2019, 129, E272-E283.	2.0	8

#	Article	IF	Citations
19	Stochastic Resonance with Dynamic Compression Improves the Growth of Adult Chondrocytes in Agarose Gel Constructs. Annals of Biomedical Engineering, 2019, 47, 243-256.	2.5	8
20	Failure behaviour of rat vertebrae determined through simultaneous compression testing and micro-CT imaging. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 73-82.	3.1	7
21	Development of a novel bioactive glass suitable for osteosarcomaâ€related bone grafts. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1186-1193.	3.4	11
22	Thyroxine Increases Collagen Type II Expression and Accumulation in Scaffold-Free Tissue-Engineered Articular Cartilage. Tissue Engineering - Part A, 2018, 24, 369-381.	3.1	26
23	Mechanical Stimulation Methods for Cartilage Tissue Engineering. , 2018, , 123-147.		2
24	Direct cell-cell communication with three-dimensional cell morphology on wrinkled microposts. Acta Biomaterialia, 2018, 78, 89-97.	8.3	13
25	Tunable Multiplanar Nanowrinkled Surface Platform. Advanced Materials Interfaces, 2018, 5, 1800663.	3.7	5
26	Bioengineering pediatric scaffoldâ€free auricular cartilaginous constructs. Laryngoscope, 2017, 127, E153-E158.	2.0	2
27	Titanium addition influences antibacterial activity of bioactive glass coatings on metallic implants. Heliyon, 2017, 3, e00420.	3.2	23
28	Comparisons of Auricular Cartilage Tissues from Different Species. Annals of Otology, Rhinology and Laryngology, 2017, 126, 819-828.	1.1	22
29	Formation of Hyaline Cartilage Tissue by Passaged Human Osteoarthritic Chondrocytes. Tissue Engineering - Part A, 2017, 23, 156-165.	3.1	24
30	Scaffoldâ€free cartilage tissue engineering with a small population of human nasoseptal chondrocytes. Laryngoscope, 2017, 127, E91-E99.	2.0	12
31	A novel tantalum-containing bioglass. Part II. Development of a bioadhesive for sternal fixation and repair. Materials Science and Engineering C, 2017, 71, 401-411.	7.3	33
32	In Situ and ExÂVivo Biomechanical Testing of Articular Cartilage. , 2017, , 331-347.		1
33	Stochastic resonance is a method to improve the biosynthetic response of chondrocytes to mechanical stimulation. Journal of Orthopaedic Research, 2016, 34, 231-239.	2.3	16
34	Chondrocyte Generation of Cartilageâ€Like Tissue Following Photoencapsulation in Methacrylated Polysaccharide Solution Blends. Macromolecular Bioscience, 2016, 16, 1083-1095.	4.1	14
35	Antibacterial and osteo-stimulatory effects of a borate-based glass series doped with strontium ions. Journal of Biomaterials Applications, 2016, 31, 674-683.	2.4	16
36	Generating Mechanically Stable, Pediatric, and Scaffold-Free Nasal Cartilage ConstructsIn Vitro. Tissue Engineering - Part C: Methods, 2016, 22, 1077-1084.	2.1	3

#	Article	IF	Citations
37	Wrinkling Non-Spherical Particles and Its Application in Cell Attachment Promotion. Scientific Reports, 2016, 6, 30463.	3.3	42
38	Direct and indirect co-culture of bone marrow stem cells and adipose-derived stem cells with chondrocytes in 3D scaffold-free culture. Journal of Regenerative Medicine & Tissue Engineering, 2016, 5, 1.	1.5	3
39	Multilineage co-culture of adipose-derived stem cells for tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 826-837.	2.7	7
40	Microarchitecture for a Threeâ€Ðimensional Wrinkled Surface Platform. Advanced Materials, 2015, 27, 1880-1886.	21.0	45
41	Photo-cross-linked methacrylated polysaccharide solution blends with high chondrocyte viability, minimal swelling, and moduli similar to load bearing soft tissues. European Polymer Journal, 2015, 72, 687-697.	5.4	19
42	Mechanobioreactors for Cartilage Tissue Engineering. Methods in Molecular Biology, 2015, 1340, 203-219.	0.9	7
43	The Application of Multiple Biophysical Cues to Engineer Functional Neocartilage for Treatment of Osteoarthritis. Part I: Cellular Response. Tissue Engineering - Part B: Reviews, 2015, 21, 1-19.	4.8	31
44	The Application of Multiple Biophysical Cues to Engineer Functional Neocartilage for Treatment of Osteoarthritis. Part II: Signal Transduction. Tissue Engineering - Part B: Reviews, 2015, 21, 20-33.	4.8	13
45	Natural Scaffold, from Bovine Bone Marrow, Reproduces Native Microenvironment and Supports CD34+ and Stromal Cells. Blood, 2015, 126, 2400-2400.	1.4	1
46	Growth Factor Stimulation Improves the Structure and Properties of Scaffold-Free Engineered Auricular Cartilage Constructs. PLoS ONE, 2014, 9, e105170.	2.5	26
47	Development of Scaffold-Free Elastic Cartilaginous Constructs with Structural Similarities to Auricular Cartilage. Tissue Engineering - Part A, 2014, 20, 1012-1026.	3.1	15
48	Implantation of Scaffoldâ€Free Engineered Cartilage Constructs in a Rabbit Model for Chondral Resurfacing. Artificial Organs, 2014, 38, E21-32.	1.9	18
49	Calcium signaling as a novel method to optimize the biosynthetic response of chondrocytes to dynamic mechanical loading. Biomechanics and Modeling in Mechanobiology, 2014, 13, 1387-1397.	2.8	19
50	From In Vitro to In Situ Tissue Engineering. Annals of Biomedical Engineering, 2014, 42, 1537-1545.	2.5	73
51	Clodronate exerts an anabolic effect on articular chondrocytes mediated through the purinergic receptor pathway. Osteoarthritis and Cartilage, 2014, 22, 1327-1336.	1.3	19
52	The Effect of Moving Point of Contact Stimulation on Chondrocyte Gene Expression and Localization in Tissue Engineered Constructs. Annals of Biomedical Engineering, 2013, 41, 1106-1119.	2.5	8
53	Injectable, High Modulus, And Fatigue Resistant Composite Scaffold for Load-Bearing Soft Tissue Regeneration. Biomacromolecules, 2013, 14, 4236-4247.	5.4	11
54	Image-Guided Techniques Improve the Short-Term Outcome of Autologous Osteochondral Cartilage Repair Surgeries. Cartilage, 2013, 4, 153-164.	2.7	6

#	Article	IF	Citations
55	Development of large engineered cartilage constructs from a small population of cells. Biotechnology Progress, 2013, 29, 213-221.	2.6	17
56	The Therapeutic Potential of Exogenous Adenosine Triphosphate (ATP) for Cartilage Tissue Engineering. Cartilage, 2012, 3, 364-373.	2.7	7
57	The Effect of Serial Passaging on the Proliferation and Differentiation of Bovine Adipose-Derived Stem Cells. Cells Tissues Organs, 2012, 195, 414-427.	2.3	33
58	Mechanical Stimulation of Chondrocyte-agarose Hydrogels. Journal of Visualized Experiments, 2012, , e4229.	0.3	14
59	A crimp-like microarchitecture improves tissue production in fibrous ligament scaffolds in response to mechanical stimuli. Acta Biomaterialia, 2012, 8, 3704-3713.	8.3	43
60	Biomimetic poly(lactide) based fibrous scaffolds for ligament tissue engineering. Acta Biomaterialia, 2012, 8, 3997-4006.	8.3	57
61	Computer-assisted mosaic arthroplasty using patient-specific instrument guides. Knee Surgery, Sports Traumatology, Arthroscopy, 2012, 20, 857-861.	4.2	21
62	Chondrocyte repopulation of the zone of death induced by osteochondral harvest. Osteoarthritis and Cartilage, 2011, 19, 242-248.	1.3	20
63	A Photocurable Hydrogel/Elastomer Composite Scaffold with Biâ€Continuous Morphology for Cell Encapsulation. Macromolecular Bioscience, 2011, 11, 1672-1683.	4.1	14
64	Can Microcarrier-Expanded Chondrocytes Synthesize Cartilaginous TissueIn Vitro?. Tissue Engineering - Part A, 2011, 17, 1959-1967.	3.1	14
65	Automated Planning of Computer Assisted Mosaic Arthroplasty. Lecture Notes in Computer Science, 2011, 14, 267-274.	1.3	3
66	Design and characterization of a biodegradable composite scaffold for ligament tissue engineering. Journal of Biomedical Materials Research - Part A, 2010, 92A, 1407-1420.	4.0	27
67	Effects of dehydration-induced structural and material changes on the apparent modulus of cancellous bone. Medical Engineering and Physics, 2010, 32, 921-925.	1.7	20
68	The Effect of Intermittent Static Biaxial Tensile Strains on Tissue Engineered Cartilage. Annals of Biomedical Engineering, 2010, 38, 1672-1682.	2.5	31
69	Harnessing the purinergic receptor pathway to develop functional engineered cartilage constructs. Osteoarthritis and Cartilage, 2010, 18, 864-872.	1.3	19
70	Minimizing specimen length in elastic testing of end-constrained cancellous bone. Journal of the Mechanical Behavior of Biomedical Materials, 2010, 3, 22-30.	3.1	22
71	Development of a Multi-axial Mechanical Cell Stimulator. Journal of Intelligent Material Systems and Structures, 2010, 21, 213-220.	2.5	0
72	Effect of circumferential constraint on nucleus pulposus tissue in vitro. Spine Journal, 2010, 10, 174-183.	1.3	6

#	Article	IF	Citations
73	Self-Crimping, Biodegradable, Electrospun Polymer Microfibers. Biomacromolecules, 2010, 11, 3624-3629.	5.4	56
74	Specimen diameter and â€œside artifactsâ€•in cancellous bone evaluated using end-constrained elastic tension. Bone, 2010, 47, 371-377.	2.9	19
75	Genipin Cross-Linked Fibrin Hydrogels for in vitro Human Articular Cartilage Tissue-Engineered Regeneration. Cells Tissues Organs, 2009, 190, 313-325.	2.3	73
76	The effect of continuous culture on the growth and structure of tissueâ€engineered cartilage. Biotechnology Progress, 2009, 25, 508-515.	2.6	28
77	Genetic Hypercalciuric Stone-Forming Rats Have a Primary Decrease in BMD and Strength. Journal of Bone and Mineral Research, 2009, 24, 1420-1426.	2.8	30
78	Prediction of the Repair Surface over Cartilage Defects: A Comparison of Three Methods in a Sheep Model. Lecture Notes in Computer Science, 2009, 12, 75-82.	1.3	2
79	Morphology of fibroblasts grown on substrates formed by dielectrophoretically aligned carbon nanotubes. Cytotechnology, 2008, 56, 9-17.	1.6	22
80	Glycogen storage in tissue-engineered cartilage. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 340-346.	2.7	6
81	Are micropatterned substrates for directed cell organization an effective method to create ordered 3D tissue constructs?. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 450-453.	2.7	12
82	Mechanical vibrations increase the proliferation of articular chondrocytes in high-density culture. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2008, 222, 695-703.	1.8	27
83	Seeing tissue as a â€˜phase of matterâ€™: exploring statistical mechanics for the cell. Physical Biology, 2008, 5, 016007.	1.8	3
84	Differential Effects of Natriuretic Peptide Stimulation on Tissue-Engineered Cartilage. Tissue Engineering - Part A, 2008, 14, 441-448.	3.1	17
85	Specimen size effect in the volumetric shrinkage of cancellous bone measured at two levels of dehydration. Journal of Biomechanics, 2007, 40, 1903-1909.	2.1	20
86	Multi-axial mechanical stimulation of tissue engineered cartilage: Review. , 2007, 13, 66-75.		62
87	Repair of osteochondral defects with biphasic cartilage-calcium polyphosphate constructs in a Sheep model. Biomaterials, 2006, 27, 4120-4131.	11.4	179
88	A single application of cyclic loading can accelerate matrix deposition and enhance the properties of tissue-engineered cartilage. Osteoarthritis and Cartilage, 2006, 14, 323-330.	1.3	88
89	Sex differences in long bone fatigue using a rat model. Journal of Orthopaedic Research, 2006, 24, 1926-1932.	2.3	16
90	Effect of sample geometry on the apparent biaxial mechanical behaviour of planar connective tissues. Biomaterials, 2005, 26, 7504-7513.	11.4	51

#	Article	IF	Citations
91	Effect of Zoledronate on Bone Quality in the Treatment of Aseptic Loosening of Hip Arthroplasty in the Dog. Calcified Tissue International, 2005, 77, 367-375.	3.1	36
92	Effect of Sodium Bicarbonate on Extracellular pH, Matrix Accumulation, and Morphology of Cultured Articular Chondrocytes. Tissue Engineering, 2004, 10, 1633-1640.	4.6	64
93	Relationship Among MRTA, DXA, and QUS. Journal of Clinical Densitometry, 2004, 7, 448-456.	1.2	13
94	Long-Term Intermittent Compressive Stimulation Improves the Composition and Mechanical Properties of Tissue-Engineered Cartilage. Tissue Engineering, 2004, 10, 1323-1331.	4.6	132
95	The steroidal aromatase inhibitor exemestane prevents bone loss in ovariectomized rats. Bone, 2004, 34, 384-392.	2.9	113
96	Tissue Engineered Nucleus Pulposus Tissue Formed on a Porous Calcium Polyphosphate Substrate. Spine, 2004, 29, 1299-1306.	2.0	86
97	Long-Term Intermittent Compressive Stimulation Improves the Composition and Mechanical Properties of Tissue-Engineered Cartilage. Tissue Engineering, 2004, 10, 1323-1331.	4.6	6
98	The use of specific chondrocyte populations to modulate the properties of tissue-engineered cartilage. Journal of Orthopaedic Research, 2003, 21, 132-138.	2.3	87
99	Longâ€term intermittent shear deformation improves the quality of cartilaginous tissue formed in vitro. Journal of Orthopaedic Research, 2003, 21, 590-596.	2.3	158
100	Mesenchymal progenitor self-renewal deficiency leads to age-dependent osteoporosis in Sca-1/Ly-6A null mice. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5840-5845.	7.1	230
101	EFFECT OF BIOMECHANICAL CONDITIONING ON CARTILAGINOUS TISSUE FORMATION IN VITRO. Journal of Bone and Joint Surgery - Series A, 2003, 85, 101-105.	3.0	127
102	Polycyclic aromatic hydrocarbons present in cigarette smoke cause bone loss in an ovariectomized rat model. Bone, 2002, 30, 917-923.	2.9	80
103	Characterization of cartilagenous tissue formed on calcium polyphosphate substrates in vitro. Journal of Biomedical Materials Research Part B, 2002, 62, 323-330.	3.1	133
104	Boundary conditions during biaxial testing of planar connective tissues Part II Fiber orientation. Journal of Materials Science Letters, 2002, 21, 1215-1221.	0.5	24
105	Boundary conditions during biaxial testing of planar connective tissues. Part 1: dynamic behavior. Journal of Materials Science: Materials in Medicine, 2002, 13, 933-938.	3.6	54
106	Mechanical characterization of a novel cell stimulating system (CSS) to apply dynamic, uniform and isotropic biaxial strains to cells in vitro. Biomedical Sciences Instrumentation, 2002, 38, 215-20.	0.2	2
107	Nasal Morphology and Shape Parameters as Predictors of Nasal Esthetics in Individuals With Complete Unilateral Cleft Lip and Palate. Cleft Palate-Craniofacial Journal, 2001, 38, 476-485.	0.9	29
108	Video-Imaging Assessment of Nasal Morphology in Individuals With Complete Unilateral Cleft Lip and Palate. Cleft Palate-Craniofacial Journal, 2000, 37, 542-550.	0.9	9

#	Article	IF	Citations
109	Thermomechanical analysis of collagen crosslinking in the developing lamb pericardium. Biorheology, 1998, 35, 1-16.	0.4	23
110	Dynamic Contact Stress and Rolling Resistance Model for Total Knee Arthroplasties. Journal of Biomechanical Engineering, 1997, 119, 254-260.	1.3	23
111	Compressive stress relaxation behavior of irradiated ultra-high molecular weight polyethylene at 37Â°C. Journal of Applied Biomaterials: an Official Journal of the Society for Biomaterials, 1994, 5, 333-338.	1.2	15
112	Differential Effects of Natriuretic Peptide Stimulation on Tissue-Engineered Cartilage. Tissue Engineering, 0, , 110306233438005.	4.6	0
113	Vibration Monitoring in Wear Testing of Orthopaedic Biomaterials. , 0, , 46-46-16.		1