Warren L Grayson

List of Publications by Year
in descending order

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94
papers

6,496
citations

81434

41
h-index

73587

79
g-index

150
all docs

150
docs citations

150
times ranked

9770
citing authors

#	ARTICLE	IF	CITATIONS
1	3D-printed oxygen-releasing scaffolds improve bone regeneration in mice. Biomaterials, 2022, 280, 121318.	5.7	20
2	Point-of-care treatment of geometrically complex midfacial critical-sized bone defects with 3D-Printed scaffolds and autologous stromal vascular fraction. Biomaterials, 2022, 282, 121392.	5.7	9
3	3D Printing for Craniofacial Bone Regeneration. , 2022, , 311-335.		0
4	Illuminating the Regenerative Microenvironment: Emerging Quantitative Imaging Technologies for Craniofacial Bone Tissue Engineering. ACS Biomaterials Science and Engineering, 2022, 8, 4610-4612.	2.6	2
5	A robust, autonomous, volumetric quality assurance method for 3D printed porous scaffolds. 3D Printing in Medicine, 2022, 8, 9.	1.7	5
6	Three-dimensional printing of scaffolds for facial reconstruction. MRS Bulletin, 2022, 47, 91-97.	1.7	8
7	Characterizing the Correlation Between Angiogenesis and Osteogenesis In Vivo Using Multicontrast Functional Imaging in a Calvarial Defect Model. FASEB Journal, 2022, 36, .	0.2	2
8	A biodegradable 3D woven magnesium-based scaffold for orthopedic implants. Biofabrication, 2022, 14, 034107.	3.7	8
9	Modeling the mechanics of fibrous-porous scaffolds for skeletal muscle regeneration. Medical and Biological Engineering and Computing, 2021, 59, 131-142.	1.6	3
10	Protocol for the Use of a Novel Bioreactor System for Hydrated Mechanical Testing, Strained Sterile Culture, and Force of Contraction Measurement of Tissue Engineered Muscle Constructs. Frontiers in Cell and Developmental Biology, 2021, 9, 661036.	1.8	3
11	Engineering skeletal muscle: Building complexity to achieve functionality. Seminars in Cell and Developmental Biology, 2021, 119, 61-69.	2.3	9
12	Engineering bone from fat: a review of the in vivo mechanisms of adipose derived stem cell-mediated bone regeneration. Progress in Biomedical Engineering, 2021, 3, 042002.	2.8	5
13	Effects of Single-Dose Versus Hypofractionated Focused Radiation on Vertebral Body Structure and Biomechanical Integrity: Development of a Rabbit Radiation-Induced Vertebral Compression Fracture Model. International Journal of Radiation Oncology Biology Physics, 2021, 111, 528-538.	0.4	7
14	Quantitative 3D imaging of the cranial microvascular environment at single-cell resolution. Nature Communications, 2021, 12, 6219.	5.8	37
15	Comparison of Freshly Isolated Adipose Tissue-derived Stromal Vascular Fraction and Bone Marrow Cells in a Posterolateral Lumbar Spinal Fusion Model. Spine, 2021, 46, 631-637.	1.0	4
16	Vascularized and Innervated Skeletal Muscle Tissue Engineering. Advanced Healthcare Materials, 2020, 9, e1900626.	3.9	91
17	Electrodeposition of Hydroxyapatite on a Metallic 3D-Woven Bioscaffold. Coatings, 2020, 10, 715.	1.2	11
18	Biomimetic Model of Contractile Cardiac Tissue with Endothelial Networks Stabilized by Adipose-Derived Stromal/Stem Cells. Scientific Reports, 2020, 10, 8387.	1.6	16

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19	Engineering 3D skeletal muscle primed for neuromuscular regeneration following volumetric muscle loss. Biomaterials, 2020, 255, 120154.	5.7	31
20	Non-viral gene delivery of HIF-1Î± promotes angiogenesis in human adipose-derived stem cells. Acta Biomaterialia, 2020, 113, 279-288.	4.1	19
21	Recent advances toward understanding the role of transplanted stem cells in tissue-engineered regeneration of musculoskeletal tissues. F1000Research, 2020, 9, 118.	0.8	8
22	Myoblast maturity on aligned microfiber bundles at the onset of strain application impacts myogenic outcomes. Acta Biomaterialia, 2019, 94, 232-242.	4.1	24
23	Modified cell-electrospinning for 3D myogenesis of C2C12s in aligned fibrin microfiber bundles. Biochemical and Biophysical Research Communications, 2019, 516, 558-564.	1.0	46
24	Nanofiber-hydrogel compositeâ€“mediated angiogenesis for soft tissue reconstruction. Science Translational Medicine, 2019, 11, .	5.8	171
25	Heparinâ€Conjugated Decellularized Bone Particles Promote Enhanced Osteogenic Signaling of PDGFâ€BB to Adiposeâ€Derived Stem Cells in Tissue Engineered Bone Grafts. Advanced Healthcare Materials, 2019, 8, 1801565.	3.9	20
26	Comparison of Stromal Vascular Fraction and Passaged Adipose-Derived Stromal/Stem Cells as Point-of-Care Agents for Bone Regeneration. Tissue Engineering - Part A, 2019, 25, 1459-1469.	1.6	31
27	scafSLICR: A MATLAB-based slicing algorithm to enable 3D-printing of tissue engineering scaffolds with heterogeneous porous microarchitecture. PLoS ONE, 2019, 14, e0225007.	1.1	19
28	Mathematical modeling of oxygen release from hyperbarically loaded polymers. Biotechnology Progress, 2019, 35, e2751.	1.3	2
29	Title is missing!. , 2019, 14, e0225007.		0
30	Title is missing!. , 2019, 14, e0225007.		0
31	Title is missing!. , 2019, 14, e0225007.		0
32	Title is missing!. , 2019, 14, e0225007.		0
33	Engineering functional and histological regeneration of vascularized skeletal muscle. Biomaterials, 2018, 164, 70-79.	5.7	78
34	Myogenic Differentiation of ASCs Using Biochemical and Biophysical Induction. Methods in Molecular Biology, 2018, 1773, 123-135.	0.4	5
35	A Poroelastic Model of a Fibrous-Porous Tissue Engineering Scaffold. Scientific Reports, 2018, 8, 5043.	1.6	6
36	Adiposeâ€derived perivascular mesenchymal stromal/stem cells promote functional vascular tissue engineering for cardiac regenerative purposes. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e962-e972.	1.3	14

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37	Regulatory interfaces surrounding the growing field of additive manufacturing of medical devices and biologic products. Journal of Clinical and Translational Science, 2018, 2, 301-304.	0.3	10
38	Strategies for Tissue Engineering Vascularized Cardiac Patches to Treat Myocardial Infarctions. Biological and Medical Physics Series, 2018, , 141-175.	0.3	1
39	Recent advances in bioreactors for cell-based therapies. F1000Research, 2018, 7, 517.	0.8	58
40	Adipose-derived Stem/Stromal Cells on Electrospun Fibrin Microfiber Bundles Enable Moderate Muscle Reconstruction in a Volumetric Muscle Loss Model. Cell Transplantation, 2018, 27, 1644-1656.	1.2	35
41	Assessing the Minimum Time-Period of Normoxic Preincubation for Stable Adipose Stromal Cell-Derived Vascular Networks. Cellular and Molecular Bioengineering, 2018, 11, 471-481.	1.0	3
42	Phenotyping the Microvasculature in Critical-Sized Calvarial Defects via Multimodal Optical Imaging. Tissue Engineering - Part C: Methods, 2018, 24, 430-440.	1.1	8
43	Advances in Perfusion Systems for Solid Organ Preservation. Yale Journal of Biology and Medicine, 2018, 91, 301-312.	0.2	15
44	3D-Printing Technologies for Craniofacial Rehabilitation, Reconstruction, and Regeneration. Annals of Biomedical Engineering, 2017, 45, 45-57.	1.3	150
45	Stem Cell Fate Decision Making: Modeling Approaches. ACS Biomaterials Science and Engineering, 2017, 3, 2702-2711.	2.6	11
46	Biophysical Stimulation for Engineering Functional Skeletal Muscle. Tissue Engineering - Part B: Reviews, 2017, 23, 362-372.	2.5	25
47	3D-Printing Composite Polycaprolactone-Decellularized Bone Matrix Scaffolds for Bone Tissue Engineering Applications. Methods in Molecular Biology, 2017, 1577, 209-226.	0.4	33
48	Comparison of 3D-Printed Poly-É›-Caprolactone Scaffolds Functionalized with Tricalcium Phosphate, Hydroxyapatite, Bio-Oss, or Decellularized Bone Matrix<sup />. Tissue Engineering - Part A, 2017, 23, 503-514.	1.6	157
49	Recent Advances in Tissue Engineering Strategies for the Treatment of Joint Damage. Current Rheumatology Reports, 2017, 19, 44.	2.1	4
50	Three-Dimensional Printing of Bone Extracellular Matrix for Craniofacial Regeneration. ACS Biomaterials Science and Engineering, 2016, 2, 1806-1816.	2.6	141
51	Characterization of a novel bioreactor system for 3D cellular mechanobiology studies. Biotechnology and Bioengineering, 2016, 113, 1825-1837.	1.7	31
52	Oxygen delivering biomaterials for tissue engineering. Journal of Materials Chemistry B, 2016, 4, 3422-3432.	2.9	149
53	Hypoxia Inhibits <i>De Novo</i> Vascular Assembly of Adipose-Derived Stromal/Stem Cell Populations, but Promotes Growth of Preformed Vessels. Tissue Engineering - Part A, 2016, 22, 161-169.	1.6	17
54	Growth factor-eluting technologies for bone tissue engineering. Drug Delivery and Translational Research, 2016, 6, 184-194.	3.0	73

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55	Platelet-Derived Growth Factor BB Enhances Osteogenesis of Adipose-Derived But Not Bone Marrow-Derived Mesenchymal Stromal/Stem Cells. Stem Cells, 2015, 33, 2773-2784.	1.4	61
56	A Modeling Insight into Adipose-Derived Stem Cell Myogenesis. PLoS ONE, 2015, 10, e0137918.	1.1	11
57	Stromal cells and stem cells in clinical bone regeneration. Nature Reviews Endocrinology, 2015, 11, 140-150.	4.3	342
58	Craniofacial Bone. , 2015, , 215-230.		1
59	Oxygen delivery from hyperbarically loaded microtanks extends cell viability in anoxic environments. Biomaterials, 2015, 52, 376-384.	5.7	47
60	Multistage Adipose-Derived Stem Cell Myogenesis: An Experimental and Modeling Study. Cellular and Molecular Bioengineering, 2014, 7, 497-509.	1.0	15
61	Human adipose-derived cells can serve as a single-cell source for the<i>in vitro</i>cultivation of vascularized bone grafts. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 629-639.	1.3	23
62	Creating polymer hydrogel microfibres with internal alignment via electrical and mechanical stretching. Biomaterials, 2014, 35, 3243-3251.	5.7	83
63	Engineering anatomically shaped vascularized bone grafts with hASCs and 3D-printed PCL scaffolds. Journal of Biomedical Materials Research - Part A, 2014, 102, n/a-n/a.	2.1	153
64	Stem cell-based approaches to engineering vascularized bone. Current Opinion in Chemical Engineering, 2014, 3, 75-82.	3.8	45
65	Scaffold pore size modulates <i>in vitro</i> osteogenesis of human adipose-derived stem/stromal cells. Biomedical Materials (Bristol), 2014, 9, 045003.	1.7	56
66	Tumor Necrosis Factor Improves Vascularization in Osteogenic Grafts Engineered with Human Adipose-Derived Stem/Stromal Cells. PLoS ONE, 2014, 9, e107199.	1.1	24
67	Platelet-Derived Growth Factor and Spatiotemporal Cues Induce Development of Vascularized Bone Tissue by Adipose-Derived Stem Cells. Tissue Engineering - Part A, 2013, 19, 2076-2086.	1.6	52
68	Mechanical control of tissue-engineered bone. Stem Cell Research and Therapy, 2013, 4, 10.	2.4	44
69	Engineering Bone Grafts with Enhanced Bone Marrow and Native Scaffolds. Cells Tissues Organs, 2013, 198, 87-98.	1.3	9
70	Engineering bone tissue from human embryonic stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8705-8709.	3.3	153
71	Cystamine-terminated poly(beta-amino ester)s for siRNA delivery to human mesenchymal stem cells and enhancement of osteogenic differentiation. Biomaterials, 2012, 33, 8142-8151.	5.7	82
72	Vascular Morphogenesis of Adipose-Derived Stem Cells is Mediated by Heterotypic Cell-Cell Interactions. Tissue Engineering - Part A, 2012, 18, 1729-1740.	1.6	33

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73	Recapitulation of mesenchymal condensation enhances in vitro chondrogenesis of human mesenchymal stem cells. Journal of Cellular Physiology, 2012, 227, 3701-3708.	2.0	41
74	Bone Tissue Engineering Bioreactors: A Role in the Clinic?. Tissue Engineering - Part B: Reviews, 2012, 18, 62-75.	2.5	58
75	Adipose tissue as a stem cell source for musculoskeletal regeneration. Frontiers in Bioscience - Scholar, 2011, S3, 69-81.	0.8	47
76	Synthetic poly(ester amine) and poly(amido amine) nanoparticles for efficient DNA and siRNA delivery to human endothelial cells. International Journal of Nanomedicine, 2011, 6, 3309.	3.3	21
77	Nucleation and growth of mineralized bone matrix on silk-hydroxyapatite composite scaffolds. Biomaterials, 2011, 32, 2812-2820.	5.7	238
78	Optimizing the medium perfusion rate in bone tissue engineering bioreactors. Biotechnology and Bioengineering, 2011, 108, 1159-1170.	1.7	129
79	Ingrowth of human mesenchymal stem cells into porous silk particle reinforced silk composite scaffolds: An in vitro study. Acta Biomaterialia, 2011, 7, 144-151.	4.1	112
80	In Vitro Model of Vascularized Bone: Synergizing Vascular Development and Osteogenesis. PLoS ONE, 2011, 6, e28352.	1.1	107
81	Bone Grafts Engineered from Human Adipose-Derived Stem Cells in Perfusion Bioreactor Culture. Tissue Engineering - Part A, 2010, 16, 179-189.	1.6	157
82	Engineering anatomically shaped human bone grafts. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3299-3304.	3.3	367
83	Perfusion affects the tissue developmental patterns of human mesenchymal stem cells in 3D scaffolds. Journal of Cellular Physiology, 2009, 219, 421-429.	2.0	45
84	Hypoxia and stem cellâ€based engineering of mesenchymal tissues. Biotechnology Progress, 2009, 25, 32-42.	1.3	203
85	Biomimetic approach to tissue engineering. Seminars in Cell and Developmental Biology, 2009, 20, 665-673.	2.3	135
86	Effects of Oxygen Transport on 3-D Human Mesenchymal Stem Cell Metabolic Activity in Perfusion and Static Cultures: Experiments and Mathematical Model. Biotechnology Progress, 2008, 21, 1269-1280.	1.3	112
87	Engineering custom-designed osteochondral tissue grafts. Trends in Biotechnology, 2008, 26, 181-189.	4.9	133
88	Effects of Initial Seeding Density and Fluid Perfusion Rate on Formation of Tissue-Engineered Bone. Tissue Engineering - Part A, 2008, 14, 1809-1820.	1.6	213
89	Tissue Engineered Bone Grafts: Biological Requirements, Tissue Culture and Clinical Relevance. Current Stem Cell Research and Therapy, 2008, 3, 254-264.	0.6	280
90	Hypoxia enhances proliferation and tissue formation of human mesenchymal stem cells. Biochemical and Biophysical Research Communications, 2007, 358, 948-953.	1.0	444

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91	Engineering cartilage and bone using human mesenchymal stem cells. Journal of Orthopaedic Science, 2007, 12, 398-404.	0.5	50
92	Effects of hydroxyapatite in 3-D chitosanâ€"gelatin polymer network on human mesenchymal stem cell construct development. Biomaterials, 2006, 27, 1859-1867.	5.7	220
93	Effects of hypoxia on human mesenchymal stem cell expansion and plasticity in 3D constructs. Journal of Cellular Physiology, 2006, 207, 331-339.	2.0	374
94	Human Mesenchymal Stem Cells Tissue Development in 3D PET Matrices. Biotechnology Progress, 2004, 20, 905-912.	1.3	138