Milica Radisic

List of Publications by Year
in descending order

197 papers	16,591 citations	16451 64 h-index	16650 123 g-index
221 all docs	221 docs citations	221 times ranked	14684 citing authors

#	Article	IF	Citations
1	Functional assembly of engineered myocardium by electrical stimulation of cardiac myocytes cultured on scaffolds. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 18129-18134.	7.1	831
2	Biowire: a platform for maturation of human pluripotent stem cellâ€“derived cardiomyocytes. Nature Methods, 2013, 10, 781-787.	19.0	784
3	Advances in organ-on-a-chip engineering. Nature Reviews Materials, 2018, 3, 257-278.	48.7	690
4	Biodegradable scaffold with built-in vasculature for organ-on-a-chip engineering and direct surgical anastomosis. Nature Materials, 2016, 15, 669-678.	27.5	471
5	Electrical stimulation systems for cardiac tissue engineering. Nature Protocols, 2009, 4, 155-173.	12.0	463
6	Challenges in Cardiac Tissue Engineering. Tissue Engineering - Part B: Reviews, 2010, 16, 169-187.	4.8	431
7	A Platform for Generation of Chamber-Specific Cardiac Tissues and Disease Modeling. Cell, 2019, 176, 913-927.e18.	28.9	398
8	Oxygen gradients correlate with cell density and cell viability in engineered cardiac tissue. Biotechnology and Bioengineering, 2006, 93, 332-343.	3.3	360
9	A Microfabricated Platform to Measure and Manipulate the Mechanics of Engineered Cardiac Microtissues. Tissue Engineering - Part A, 2012, 18, 910-919.	3.1	355
10	Influence of substrate stiffness on the phenotype of heart cells. Biotechnology and Bioengineering, 2010, 105, 1148-1160.	3.3	307
11	Organ-on-a-chip devices advance to market. Lab on A Chip, 2017, 17, 2395-2420.	6.0	307
12	Medium perfusion enables engineering of compact and contractile cardiac tissue. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H507-H516.	3.2	296
13	Biomimetic Approach to Cardiac Tissue Engineering: Oxygen Carriers and Channeled Scaffolds. Tissue Engineering, 2006, 12, 2077-2091.	4.6	296
14	Flexible shape-memory scaffold for minimally invasive delivery of functional tissues. Nature Materials, 2017, 16, 1038-1046.	27.5	295
15	High-density seeding of myocyte cells for cardiac tissue engineering. Biotechnology and Bioengineering, 2003, 82, 403-414.	3.3	268
16	Scaffolds with covalently immobilized VEGF and Angiopoietin-1 for vascularization of engineered tissues. Biomaterials, 2010, 31, 226-241.	11.4	268
17	Vascular endothelial growth factor immobilized in collagen scaffold promotes penetration and proliferation of endothelial cells. Acta Biomaterialia, 2008, 4, 477-489.	8.3	263
18	Advanced Tools for Tissue Engineering: Scaffolds, Bioreactors, and Signaling. Tissue Engineering, 2006, 12, 3285-3305.	4.6	255

#	Article	IF	Citations
19	Design and formulation of functional pluripotent stem cell-derived cardiac microtissues. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4698-707.	7.1	252
20	Cardiac tissue engineering using perfusion bioreactor systems. Nature Protocols, 2008, 3, 719-738.	12.0	249
21	Mathematical model of oxygen distribution in engineered cardiac tissue with parallel channel array perfused with culture medium containing oxygen carriers. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H1278-H1289.	3.2	232
22	Maturing human pluripotent stem cell-derived cardiomyocytes in human engineered cardiac tissues. Advanced Drug Delivery Reviews, 2016, 96, 110-134.	13.7	229
23	Organâ€Onâ€Aâ€Chip Platforms: A Convergence of Advanced Materials, Cells, and Microscale Technologies. Advanced Healthcare Materials, 2018, 7, 1700506.	7.6	227
24	Biodegradable collagen patch with covalently immobilized VEGF for myocardial repair. Biomaterials, 2011, 32, 1280-1290.	11.4	211
25	Synergistic Engineering: Organoids Meet Organs-on-a-Chip. Cell Stem Cell, 2017, 21, 297-300.	11.1	200
26	Biomaterials in myocardial tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 11-28.	2.7	182
27	Microfluidic patterning for fabrication of contractile cardiac organoids. Biomedical Microdevices, 2007, 9, 149-157.	2.8	179
28	Interactive effects of surface topography and pulsatile electrical field stimulation on orientation and elongation of fibroblasts and cardiomyocytes. Biomaterials, 2007, 28, 4277-4293.	11.4	172
29	Preâ€treatment of synthetic elastomeric scaffolds by cardiac fibroblasts improves engineered heart tissue. Journal of Biomedical Materials Research - Part A, 2008, 86A, 713-724.	4.0	166
30	Perfusable branching microvessel bed for vascularization of engineered tissues. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3414-23.	7.1	152
31	Micro- and nanotechnology in cell separation. International Journal of Nanomedicine, 2006, 1, 3-14.	6.7	150
32	Cardiovascular disease models: A game changing paradigm in drug discovery and screening. Biomaterials, 2019, 198, 3-26.	11.4	149
33	Beyond Polydimethylsiloxane: Alternative Materials for Fabrication of Organ-on-a-Chip Devices and Microphysiological Systems. ACS Biomaterials Science and Engineering, 2021, 7, 2880-2899.	5.2	149
34	A peptide-modified chitosanâ€"collagen hydrogel for cardiac cell culture and delivery. Acta Biomaterialia, 2012, 8, 1022-1036.	8.3	138
35	Distilling complexity to advance cardiac tissue engineering. Science Translational Medicine, 2016, 8, 342ps13.	12.4	138
36	Peptide-Mediated Selective Adhesion of Smooth Muscle and Endothelial Cells in Microfluidic Shear Flow. Langmuir, 2007, 23, 5050-5055.	3.5	135

#	Article	IF	Citations
37	Biomimetic approach to tissue engineering. Seminars in Cell and Developmental Biology, 2009, 20, 665-673.	5.0	135
38	Moldable elastomeric polyester-carbon nanotube scaffolds for cardiac tissue engineering. Acta Biomaterialia, 2017, 52, 81-91.	8.3	135
39	Cell culture chips for simultaneous application of topographical and electrical cues enhance phenotype of cardiomyocytes. Lab on A Chip, 2009, 9, 564-575.	6.0	122
40	Microfabricated perfusable cardiac biowire: a platform that mimics native cardiac bundle. Lab on A Chip, 2014, 14, 869-882.	6.0	121
41	Can We Engineer a Human Cardiac Patch for Therapy?. Circulation Research, 2018, 123, 244-265.	4.5	121
42	A NOVEL COMPOSITE SCAFFOLD FOR CARDIAC TISSUE ENGINEERING. In Vitro Cellular and Developmental Biology - Animal, 2005, 41, 188.	1.5	120
43	Mechanical Properties and Remodeling of Hybrid Cardiac Constructs Made from Heart Cells, Fibrin, and Biodegradable, Elastomeric Knitted Fabric. Tissue Engineering, 2005, 11, 1122-1132.	4.6	120
44	A photolithographic method to create cellular micropatterns. Biomaterials, 2006, 27, 4755-4764.	11.4	118
45	Photocrosslinkable hydrogel for myocyte cell culture and injection. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 81B, 312-322.	3.4	113
46	Mosaic Hydrogels: Oneâ€Step Formation of Multiscale Soft Materials. Advanced Materials, 2012, 24, 3650-3658.	21.0	113
47	Diabetic wound regeneration using peptide-modified hydrogels to target re-epithelialization. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5792-E5801.	7.1	108
48	Effects of electrical stimulation in C2C12 muscle constructs. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 279-287.	2.7	102
49	Organs-on-a-chip models for biological research. Cell, 2021, 184, 4597-4611.	28.9	96
50	Pulsatile perfusion bioreactor for cardiac tissue engineering. Biotechnology Progress, 2008, 24, 907-920.	2.6	95
51	Materials Science and Tissue Engineering: Repairing the Heart. Mayo Clinic Proceedings, 2013, 88, 884-898.	3.0	95
52	Biphasic Electrical Field Stimulation Aids in Tissue Engineering of Multicell-Type Cardiac Organoids. Tissue Engineering - Part A, 2011, 17, 1465-1477.	3.1	86
53	Controlled release of thymosin Î²4 using collagenâ€"chitosan composite hydrogels promotes epicardial cell migration and angiogenesis. Journal of Controlled Release, 2011, 155, 376-385.	9.9	85
54	Interrogating functional integration between injected pluripotent stem cell-derived cells and surrogate cardiac tissue. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3329-3334.	7.1	83

#	Article	IF	Citations
55	Microfabricated poly(ethylene glycol) templates enable rapid screening of triculture conditions for cardiac tissue engineering. Journal of Biomedical Materials Research - Part A, 2009, 89A, 616-631.	4.0	82
56	Deterministic Lateral Displacement as a Means to Enrich Large Cells for Tissue Engineering. Analytical Chemistry, 2009, 81, 9178-9182.	6.5	80
57	Biomaterial based cardiac tissue engineering and its applications. Biomedical Materials (Bristol), 2015, 10, 034004.	3.3	79
58	Highly Elastic and Moldable Polyester Biomaterial for Cardiac Tissue Engineering Applications. ACS Biomaterials Science and Engineering, 2016, 2, 780-788.	5.2	79
59	Biowire Model of Interstitial and Focal Cardiac Fibrosis. ACS Central Science, 2019, 5, 1146-1158.	11.3	78
60	Endothelial cells guided by immobilized gradients of vascular endothelial growth factor on porous collagen scaffolds. Acta Biomaterialia, 2011, 7, 3027-3035.	8.3	73
61	Size-based microfluidic enrichment of neonatal rat cardiac cell populations. Biomedical Microdevices, 2006, 8, 231-237.	2.8	71
62	Defining conditions for covalent immobilization of angiogenic growth factors onto scaffolds for tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, 69-84.	2.7	71
63	Engineering microenvironment for human cardiac tissue assembly in heart-on-a-chip platform. Matrix Biology, 2020, 85-86, 189-204.	3.6	70
64	Microfluidic depletion of endothelial cells, smooth muscle cells, and fibroblasts from heterogeneous suspensions. Lab on A Chip, 2008, 8, 462.	6.0	69
65	Advanced Strategies for Modulation of the Materialâ€"Macrophage Interface. Advanced Functional Materials, 2020, 30, 1909331.	14.9	69
66	Engineered cardiac tissues. Current Opinion in Biotechnology, 2011, 22, 706-714.	6.6	66
67	InVADE: Integrated Vasculature for Assessing Dynamic Events. Advanced Functional Materials, 2017, 27, 1703524.	14.9	62
68	Recapitulating Pancreatic Tumor Microenvironment through Synergistic Use of Patient Organoids and Organâ€onâ€aâ€Chip Vasculature. Advanced Functional Materials, 2020, 30, 2000545.	14.9	62
69	Collagen scaffold enhances the regenerative properties of mesenchymal stromal cells. PLoS ONE, 2017, 12, e0187348.	2.5	60
70	High-Content Assessment of Cardiac Function Using Heart-on-a-Chip Devices as Drug Screening Model. Stem Cell Reviews and Reports, 2017, 13, 335-346.	5.6	59
71	h-FIBER: Microfluidic Topographical Hollow Fiber for Studies of Glomerular Filtration Barrier. ACS Central Science, 2020, 6, 903-912.	11.3	59
72	Microfabrication of AngioChip, a biodegradable polymer scaffold with microfluidic vasculature. Nature Protocols, 2018, 13, 1793-1813.	12.0	58

#	Article	IF	Citations
73	Biophysical regulation during cardiac development and application to tissue engineering. International Journal of Developmental Biology, 2006, 50, 233-243.	0.6	57
74	Controlled capture and release of cardiac fibroblasts using peptide-functionalized alginate gels in microfluidic channels. Lab on A Chip, 2009, 9, 1507.	6.0	56
75	Micro- and nanotechnology in cardiovascular tissue engineering. Nanotechnology, 2011, 22, 494003.	2.6	55
76	Resolving Myocardial Activation With Novel Omnipolar Electrograms. Circulation: Arrhythmia and Electrophysiology, 2016, 9, e004107.	4.8	54
77	Bioreactor for modulation of cardiac microtissue phenotype by combined static stretch and electrical stimulation. Biofabrication, 2014, 6, 024113.	7.1	53
78	Optical Mapping of Impulse Propagation in Engineered Cardiac Tissue. Tissue Engineering - Part A, 2009, 15, 851-860.	3.1	52
79	Towards chamber specific heart-on-a-chip for drug testing applications. Advanced Drug Delivery Reviews, 2020, 165-166, 60-76.	13.7	52
80	A well plateâ€“based multiplexed platform for incorporation of organoids into an organ-on-a-chip system with a perfusable vasculature. Nature Protocols, 2021, 16, 2158-2189.	12.0	51
81	The Role of Tissue Engineering and Biomaterials in Cardiac Regenerative Medicine. Canadian Journal of Cardiology, 2014, 30, 1307-1322.	1.7	49
82	The role of Wnt regulation in heart development, cardiac repair and disease: A tissue engineering perspective. Biochemical and Biophysical Research Communications, 2016, 473, 698-703.	2.1	48
83	Cardiac tissue engineering: current state and perspectives. Frontiers in Bioscience - Landmark, 2012, 17, 1533.	3.0	47
84	Review: Multimodal bioactive material approaches for wound healing. APL Bioengineering, 2018, 2, 021503.	6.2	46
85	Feasibility Study of a Novel Urinary Bladder Bioreactor. Tissue Engineering - Part A, 2008, 14, 339-348.	3.1	44
86	Stem Cell-Based Cardiac Tissue Engineering. Journal of Cardiovascular Translational Research, 2011, 4, 592-602.	2.4	43
87	Hydrogel Substrate Stiffness and Topography Interact to Induce Contact Guidance in Cardiac Fibroblasts. Macromolecular Bioscience, 2012, 12, 1342-1353.	4.1	42
88	Integrin-linked kinase mediates force transduction in cardiomyocytes by modulating SERCA2a/PLN function. Nature Communications, 2014, 5, 4533.	12.8	42
89	Platform technology for scalable assembly of instantaneously functional mosaic tissues. Science Advances, 2015, 1, e1500423.	10.3	42
90	Bioactive Scaffolds for Engineering Vascularized Cardiac Tissues. Macromolecular Bioscience, 2010, 10, 1286-1301.	4.1	41

#	Article	IF	Citations
91	Vascular Endothelial Growth Factor Secretion by Nonmyocytes Modulates Connexin-43 Levels in Cardiac Organoids. Tissue Engineering - Part A, 2012, 18, 1771-1783.	3.1	41
92	Aged Human Cells Rejuvenated by Cytokine Enhancement of Biomaterials for Surgical Ventricular Restoration. Journal of the American College of Cardiology, 2012, 60, 2237-2249.	2.8	41
93	Generation of tissue constructs for cardiovascular regenerative medicine: From cell procurement to scaffold design. Biotechnology Advances, 2013, 31, 722-735.	11.7	41
94	Photocrosslinkable chitosan modified with angiopoietinâ€1 peptide, QHREDGS, promotes survival of neonatal rat heart cells. Journal of Biomedical Materials Research - Part A, 2010, 95A, 105-117.	4.0	40
95	Facile Method for Fabrication of Meter-Long Multifunctional Hydrogel Fibers with Controllable Biophysical and Biochemical Features. ACS Applied Materials & Interfaces, 2020, 12, 9080-9089.	8.0	40
96	3D Printing of Vascular Tubes Using Bioelastomer Prepolymers by Freeform Reversible Embedding. ACS Biomaterials Science and Engineering, 2020, 6, 1333-1343.	5.2	40
97	Label-Free Enrichment of Functional Cardiomyocytes Using Microfluidic Deterministic Lateral Flow Displacement. PLoS ONE, 2012, 7, e37619.	2.5	39
98	Hydrogels With Integrin-Binding Angiopoietin-1â€"Derived Peptide, QHREDGS, for Treatment of Acute Myocardial Infarction. Circulation: Heart Failure, 2015, 8, 333-341.	3.9	39
99	Practical Aspects of Cardiac Tissue Engineering With Electrical Stimulation. Methods in Molecular Medicine, 2007, 140, 291-307.	0.8	38
100	Controlled release of thymosin Î²4 from injected collagenâ€"chitosan hydrogels promotes angiogenesis and prevents tissue loss after myocardial infarction. Regenerative Medicine, 2012, 7, 523-533.	1.7	38
101	Engineering of Oriented Myocardium on Three-Dimensional Micropatterned Collagen-Chitosan Hydrogel. International Journal of Artificial Organs, 2012, 35, 237-250.	1.4	37
102	Organ-on-a-chip platforms for evaluation of environmental nanoparticle toxicity. Bioactive Materials, 2021, 6, 2801-2819.	15.6	37
103	Topological and electrical control of cardiac differentiation and assembly. Stem Cell Research and Therapy, 2013, 4, 14.	5.5	36
104	Mitochondrial Hyperfusion during Oxidative Stress Is Coupled to a Dysregulation in Calcium Handling within a C2C12 Cell Model. PLoS ONE, 2013, 8, e69165.	2.5	36
105	QHREDGS Enhances Tube Formation, Metabolism and Survival of Endothelial Cells in Collagen-Chitosan Hydrogels. PLoS ONE, 2013, 8, e72956.	2.5	36
106	Cardiac tissue engineering: effects of bioreactor flow environment on tissue constructs. Journal of Chemical Technology and Biotechnology, 2006, 81, 485-490.	3.2	35
107	Strategies and Challenges to Myocardial Replacement Therapy. Stem Cells Translational Medicine, 2016, 5, 410-416.	3.3	35
108	Cardiac Tissue Vascularization. Journal of Cardiovascular Pharmacology and Therapeutics, 2014, 19, 382-393.	2.0	34

#	Article	IF	Citations
109	Spatiotemporal tracking of cells in tissue-engineered cardiac organoids. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 196-207.	2.7	33
110	Biomaterials and Culture Systems for Development of Organoid and Organ-on-a-Chip Models. Annals of Biomedical Engineering, 2020, 48, 2002-2027.	2.5	33
111	Functional arrays of human pluripotent stem cell-derived cardiac microtissues. Scientific Reports, 2020, 10, 6919.	3.3	32
112	Cardiac tissue engineering. Journal of the Serbian Chemical Society, 2005, 70, 541-556.	0.8	32
113	Cell Seeding of Polymer Scaffolds. , 2004, 238, 131-146.		31
114	Hydrogels modified with QHREDGS peptide support cardiomyocyte survival in vitro and after sub-cutaneous implantation. Soft Matter, 2010, 6, 5089.	2.7	31
115	A standalone perfusion platform for drug testing and target validation in micro-vessel networks. Biomicrofluidics, 2013, 7, 44125.	2.4	31
116	Inhibition of apoptosis in human induced pluripotent stem cells during expansion in a defined culture using angiopoietin-1 derived peptide QHREDGS. Biomaterials, 2014, 35, 7786-7799.	11.4	31
117	Biofabrication enables efficient interrogation and optimization of sequential culture of endothelial cells, fibroblasts and cardiomyocytes for formation of vascular cords in cardiac tissue engineering. Biofabrication, 2012, 4, 035002.	7.1	30
118	Biochemical and Biophysical Cues in Matrix Design for Chronic and Diabetic Wound Treatment. Tissue Engineering - Part B: Reviews, 2017, 23, 9-26.	4.8	30
119	New Frontiers for Biofabrication and Bioreactor Design in Microphysiological System Development. Trends in Biotechnology, 2019, 37, 1327-1343.	9.3	30
120	Cardiac tissue engineering. Current Opinion in Chemical Engineering, 2013, 2, 41-52.	7.8	28
121	A healthy dose of chaos: Using fractal frameworks for engineering higher-fidelity biomedical systems. Biomaterials, 2019, 219, 119363.	11.4	28
122	Vasculature-on-a-chip platform with innate immunity enables identification of angiopoietin-1 derived peptide as a therapeutic for SARS-CoV-2 induced inflammation. Lab on A Chip, 2022, 22, 1171-1186.	6.0	27
123	Engineering surfaces for site-specific vascular differentiation of mouse embryonic stem cells. Acta Biomaterialia, 2010, 6, 1904-1916.	8.3	26
124	Engineered Heart Tissue Model of Diabetic Myocardium. Tissue Engineering - Part A, 2011, 17, 1869-1878.	3.1	26
125	Modifications of collagen-based biomaterials with immobilized growth factors or peptides. Methods, 2015, 84, 44-52.	3.8	26
126	A Multimaterial Microphysiological Platform Enabled by Rapid Casting of Elastic Microwires. Advanced Healthcare Materials, 2019, 8, e1801187.	7.6	26

#	Article	IF	Citations
127	Kinase inhibitor screening using artificial neural networks and engineered cardiac biowires. Scientific Reports, 2017, 7, 11807.	3.3	25
128	Synthetic Oxygen Carriers in Cardiac Tissue Engineering. Artificial Cells, Blood Substitutes, and Biotechnology, 2007, 35, 135-148.	0.9	24
129	Oneâ€Pot Synthesis of Unsaturated Polyester Bioelastomer with Controllable Material Curing for Microscale Designs. Advanced Healthcare Materials, 2019, 8, e1900245.	7.6	23
130	Beyond PDMS and Membranes: New Materials for Organ-on-a-Chip Devices. ACS Biomaterials Science and Engineering, 2021, 7, 2861-2863.	5.2	23
131	An organ-on-a-chip model for pre-clinical drug evaluation in progressive non-genetic cardiomyopathy. Journal of Molecular and Cellular Cardiology, 2021, 160, 97-110.	1.9	23
132	Engineered heart tissue enables study of residual undifferentiated embryonic stem cell activity in a cardiac environment. Biotechnology and Bioengineering, 2011, 108, 704-719.	3.3	22
133	Method for the Fabrication of Elastomeric Polyester Scaffolds for Tissue Engineering and Minimally Invasive Delivery. ACS Biomaterials Science and Engineering, 2018, 4, 3691-3703.	5.2	22
134	Curvature facilitates podocyte culture in a biomimetic platform. Lab on A Chip, 2018, 18, 3112-3128.	6.0	22
135	Heartâ€onâ€aâ€Chip Platform for Assessing Toxicity of Air Pollution Related Nanoparticles. Advanced Materials Technologies, 2021, 6, 2000726.	5.8	22
136	A framework for developing sex-specific engineered heart models. Nature Reviews Materials, 2022, 7, 295-313.	48.7	22
137	Human Stem Cell-Derived Cardiac Model of Chronic Drug Exposure. ACS Biomaterials Science and Engineering, 2017, 3, 1911-1921.	5.2	20
138	Enrichment of live unlabelled cardiomyocytes from heterogeneous cell populations using manipulation of cell settling velocity by magnetic field. Biomicrofluidics, 2013, 7, 014110.	2.4	19
139	Angiopoietin-1 peptide QHREDGS promotes osteoblast differentiation, bone matrix deposition and mineralization on biomedical materials. Biomaterials Science, 2014, 2, 1384-1398.	5.4	19
140	Biophysical stimulation for <i>inÂvitro</i> engineering of functional cardiac tissues. Clinical Science, 2017, 131, 1393-1404.	4.3	18
141	Extracellular Vesicles in Cardiac Regeneration: Potential Applications for Tissues-on-a-Chip. Trends in Biotechnology, 2021, 39, 755-773.	9.3	18
142	Controlled delivery of thymosin Î²4 for tissue engineering and cardiac regenerative medicine. Annals of the New York Academy of Sciences, 2012, 1269, 16-25.	3.8	17
143	Mapping signalling perturbations in myocardial fibrosis via the integrative phosphoproteomic profiling of tissue from diverse sources. Nature Biomedical Engineering, 2020, 4, 889-900.	22.5	17
144	Cardiovascular signatures of COVID-19 predict mortality and identify barrier stabilizing therapies. EBioMedicine, 2022, 78, 103982.	6.1	17

#	Article	IF	Citations
145	Human pluripotent stem cell-derived cardiomyocyte based models for cardiotoxicity and drug discovery. Expert Opinion on Drug Safety, 2016, 15, 1455-1458.	2.4	16
146	Biomechanics of Wound Healing in an Equine Limb Model: Effect of Location and Treatment with a Peptide-Modified Collagenâ€"Chitosan Hydrogel. ACS Biomaterials Science and Engineering, 2021, 7, 265-278.	5.2	16
147	Organ-level vascularization: The Mars mission of bioengineering. Journal of Thoracic and Cardiovascular Surgery, 2020, 159, 2003-2007.	0.8	15
148	Engineered Muscle Tissues for Disease Modeling and Drug Screening Applications. Current Pharmaceutical Design, 2017, 23, 2991-3004.	1.9	15
149	Toward Renewable and Functional Biomedical Polymers with Tunable Degradation Rates Based on Itaconic Acid and 1,8-Octanediol. ACS Applied Polymer Materials, 2021, 3, 1943-1955.	4.4	13
150	An optimal gel patch for the injured heart. Nature Biomedical Engineering, 2019, 3, 592-593.	22.5	12
151	Macrophage Immunomodulation Through New Polymers that Recapitulate Functional Effects of Itaconate as a Power House of Innate Immunity. Advanced Functional Materials, 2021, 31, 2003341.	14.9	12
152	Tissue engineering approaches for the development of a contractile cardiac patch. Future Cardiology, 2007, 3, 425-434.	1.2	11
153	Combined hypoxia and sodium nitrite pretreatment for cardiomyocyte protection <i>in vitro</i>. Biotechnology Progress, 2015, 31, 482-492.	2.6	11
154	Toward Hierarchical Assembly of Aligned Cell Sheets into a Conical Cardiac Ventricle Using Microfabricated Elastomers. Advanced Biology, 2022, 6, .	2.5	11
155	Macrophage Polarization with Angiopoietin-1 Peptide QHREDGS. ACS Biomaterials Science and Engineering, 2019, 5, 4542-4550.	5.2	10
156	Everolimus Rescues the Phenotype of Elastin Insufficiency in Patient Induced Pluripotent Stem Cellâ€"Derived Vascular Smooth Muscle Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, 1325-1339.	2.4	10
157	A New Role for Extracellular Vesicles in Cardiac Tissue Engineering and Regenerative Medicine. Advanced NanoBiomed Research, 2021, 1, 2100047.	3.6	8
158	PI3K Phosphorylation Is Linked to Improved Electrical Excitability in an <i>In Vitro</i> Engineered Heart Tissue Disease Model System. Tissue Engineering - Part A, 2015, 21, 2379-2389.	3.1	7
159	Cell nutrition. , 2008, , 327-362.		6
160	Maturation of stem cell-derived human heart tissue by mimicking fetal heart rate. Future Cardiology, 2013, 9, 751-754.	1.2	6
161	Fusible Core Molding for the Fabrication of Branched, Perfusable, Three-Dimensional Microvessels for Vascular Tissue Engineering. International Journal of Artificial Organs, 2013, 36, 159-165.	1.4	6
162	Cardiac Tissue Engineering. , 2011, , 421-456.		5

#	Article	IF	Citations
163	Cardiac Tissue Engineering. , 2014, , 771-792.		5
164	Elastic Biomaterial Scaffold with Spatially Varying Adhesive Design. Advanced Biology, 2020, 4, e2000046.	3.0	5
165	Biomaterials for cardiac tissue engineering. Biomedical Materials (Bristol), 2015, 10, 030301.	3.3	4
166	Signals from within. Nature Materials, 2016, 15, 596-597.	27.5	4
167	Special Issue on Tissue Engineering. ACS Biomaterials Science and Engineering, 2017, 3, 1880-1883.	5.2	4
168	The use of microfabrication technology to address the challenges of building physiologically relevant vasculature. Current Opinion in Biomedical Engineering, 2018, 6, 8-16.	3.4	4
169	Drawing Inspiration from Developmental Biology for Cardiac Tissue Engineers. Advanced Biology, 2021, 5, 2000190.	2.5	4
170	Design and Fabrication of Biological Wires for Cardiac Fibrosis Disease Modeling. Methods in Molecular Biology, 2022, , 175-190.	0.9	4
171	Tissue Engineering of Cartilage and Myocardium. , 2005, , 99-133.		3
172	Engagement of the medical-technology sector with society. Science Translational Medicine, 2017, 9, .	12.4	3
173	Cardiac Tissue. , 2019, , 1073-1099.		3
174	From Engineered Tissues and Microfludics to Human Eyes-On-A-Chip. Journal of Ocular Pharmacology and Therapeutics, 2020, 36, 4-6.	1.4	3
175	Bioengineering strategies to control epithelial-to-mesenchymal transition for studies of cardiac development and disease. APL Bioengineering, 2021, 5, 021504.	6.2	3
176	Spatial and Electrical Factors Regulating Cardiac Regeneration and Assembly. , 2015, , 71-92.		3
177	Building a better model of the retina. ELife, 2019, 8, .	6.0	3
178	Functional Tissue Engineering of Cartilage and Myocardium. , 2005, , 501-530.		2
179	Cardiac tissue engineering. , 2020, , 593-616.		2
180	Engineering Models of the Heart Left Ventricle. ACS Biomaterials Science and Engineering, 2022, 8, 2144-2160.	5.2	2

#	Article	IF	Citations
181	Hydrogels: Mosaic Hydrogels: Oneâ€Step Formation of Multiscale Soft Materials (Adv. Mater. 27/2012). Advanced Materials, 2012, 24, 3582-3582.	21.0	1
182	Microfluidic Cell Culture Techniques. , 2013, , 303-321.		1
183	Cell Adhesion and Detachment. , 2013, , 1-9.		1
184	Engineering Cardiac Tissues from Pluripotent Stem Cells for Drug Screening and Studies of Cell Maturation. Israel Journal of Chemistry, 2013, 53, 680-694.	2.3	1
185	Cardiac tissue regeneration in bioreactors. , 2014, , 640-668.		1
186	Organsâ€onâ€aâ€Chip: InVADE: Integrated Vasculature for Assessing Dynamic Events (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock	14.9	1
187	Rapid Wire Casting: A Multimaterial Microphysiological Platform Enabled by Rapid Casting of Elastic Microwires (Adv. Healthcare Mater. 5/2019). Advanced Healthcare Materials, 2019, 8, 1970019.	7.6	1
188	Design and Fabrication of Biological Wires. Methods in Molecular Biology, 2014, 1181, 157-165.	0.9	1
189	Surface Engineering in Microfluidic Devices for the Isolation of Smooth Muscle Cells and Endothelial Cells. Materials Research Society Symposia Proceedings, 2007, 1004, 1.	0.1	0
190	Macromol. Biosci. 11/2010. Macromolecular Bioscience, 2010, 10, n/a-n/a.	4.1	0
191	Cardiac Tissue. , 2011, , 877-909.		0
192	Editorial: Tissue engineering of the heart. Advanced Drug Delivery Reviews, 2016, 96, 1-2.	13.7	0
193	Biomaterials Going Strong in Canada for Half a Century. ACS Biomaterials Science and Engineering, 2018, 4, 3625-3626.	5.2	0
194	An Organ-on-a-Chip System to Study Anaerobic Bacteria in Intestinal Health and Disease. Med, 2021, 2, 16-18.	4.4	0
195	Biomimetic Approach to Cardiac Tissue Engineering: Oxygen Carriers and Channeled Scaffolds. Tissue Engineering, 2006, .	4.6	0
196	Cardiac Tissue. , 2008, , 1038-1059.		0
197	Biomimetic Approaches to Design of Tissue Engineering Bioreactors. NATO Science for Peace and Security Series A: Chemistry and Biology, 2010, , 115-129.	0.5	0