Milica Radisic

List of Publications by Year
in descending order

197 papers	16,591 citations	16411 64 h-index	16605 123 g-index
221 all docs	221 docs citations	221 times ranked	14684 citing authors

#	Article	IF	Citations
1	A framework for developing sex-specific engineered heart models. Nature Reviews Materials, 2022, 7, 295-313.	23.3	22
2	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.	3.1	27
3	Cardiovascular signatures of COVID-19 predict mortality and identify barrier stabilizing therapies. EBioMedicine, 2022, 78, 103982.	2.7	17
4	Engineering Models of the Heart Left Ventricle. ACS Biomaterials Science and Engineering, 2022, 8, 2144-2160.	2.6	2
5	Design and Fabrication of Biological Wires for Cardiac Fibrosis Disease Modeling. Methods in Molecular Biology, 2022, , 175-190.	0.4	4
6	Toward Hierarchical Assembly of Aligned Cell Sheets into a Conical Cardiac Ventricle Using Microfabricated Elastomers. Advanced Biology, 2022, 6, .	1.4	11
7	Extracellular Vesicles in Cardiac Regeneration: Potential Applications for Tissues-on-a-Chip. Trends in Biotechnology, 2021, 39, 755-773.	4.9	18
8	Beyond Polydimethylsiloxane: Alternative Materials for Fabrication of Organ-on-a-Chip Devices and Microphysiological Systems. ACS Biomaterials Science and Engineering, 2021, 7, 2880-2899.	2.6	149
9	Macrophage Immunomodulation Through New Polymers that Recapitulate Functional Effects of Itaconate as a Power House of Innate Immunity. Advanced Functional Materials, 2021, 31, 2003341.	7.8	12
10	Heartâ€onâ€aâ€Chip Platform for Assessing Toxicity of Air Pollution Related Nanoparticles. Advanced Materials Technologies, 2021, 6, 2000726.	3.0	22
11	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.	2.6	16
12	An Organ-on-a-Chip System to Study Anaerobic Bacteria in Intestinal Health and Disease. Med, 2021, 2, 16-18.	2.2	0
13	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.	2.0	13
14	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.	5.5	51
15	Drawing Inspiration from Developmental Biology for Cardiac Tissue Engineers. Advanced Biology, 2021, 5, 2000190.	1.4	4
16	Bioengineering strategies to control epithelial-to-mesenchymal transition for studies of cardiac development and disease. APL Bioengineering, 2021, 5, 021504.	3.3	3
17	Beyond PDMS and Membranes: New Materials for Organ-on-a-Chip Devices. ACS Biomaterials Science and Engineering, 2021, 7, 2861-2863.	2.6	23
18	A New Role for Extracellular Vesicles in Cardiac Tissue Engineering and Regenerative Medicine. Advanced NanoBiomed Research, 2021, 1, 2100047.	1.7	8

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19	Organ-on-a-chip platforms for evaluation of environmental nanoparticle toxicity. Bioactive Materials, 2021, 6, 2801-2819.	8.6	37
20	Organs-on-a-chip models for biological research. Cell, 2021, 184, 4597-4611.	13.5	96
21	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.	0.9	23
22	Engineering microenvironment for human cardiac tissue assembly in heart-on-a-chip platform. Matrix Biology, 2020, 85-86, 189-204.	1.5	70
23	Organ-level vascularization: The Mars mission of bioengineering. Journal of Thoracic and Cardiovascular Surgery, 2020, 159, 2003-2007.	0.4	15
24	From Engineered Tissues and Microfludics to Human Eyes-On-A-Chip. Journal of Ocular Pharmacology and Therapeutics, 2020, 36, 4-6.	0.6	3
25	Towards chamber specific heart-on-a-chip for drug testing applications. Advanced Drug Delivery Reviews, 2020, 165-166, 60-76.	6.6	52
26	Mapping signalling perturbations in myocardial fibrosis via the integrative phosphoproteomic profiling of tissue from diverse sources. Nature Biomedical Engineering, 2020, 4, 889-900.	11.6	17
27	h-FIBER: Microfluidic Topographical Hollow Fiber for Studies of Glomerular Filtration Barrier. ACS Central Science, 2020, 6, 903-912.	5.3	59
28	Elastic Biomaterial Scaffold with Spatially Varying Adhesive Design. Advanced Biology, 2020, 4, e2000046.	3.0	5
29	Recapitulating Pancreatic Tumor Microenvironment through Synergistic Use of Patient Organoids and Organâ€onâ€aâ€Chip Vasculature. Advanced Functional Materials, 2020, 30, 2000545.	7.8	62
30	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.	1.1	10
31	Advanced Strategies for Modulation of the Materialâ€"Macrophage Interface. Advanced Functional Materials, 2020, 30, 1909331.	7.8	69
32	Facile Method for Fabrication of Meter-Long Multifunctional Hydrogel Fibers with Controllable Biophysical and Biochemical Features. ACS Applied Materials & Interfaces, 2020, 12, 9080-9089.	4.0	40
33	3D Printing of Vascular Tubes Using Bioelastomer Prepolymers by Freeform Reversible Embedding. ACS Biomaterials Science and Engineering, 2020, 6, 1333-1343.	2.6	40
34	Cardiac tissue engineering. , 2020, , 593-616.		2
35	Functional arrays of human pluripotent stem cell-derived cardiac microtissues. Scientific Reports, 2020, 10, 6919.	1.6	32
36	Biomaterials and Culture Systems for Development of Organoid and Organ-on-a-Chip Models. Annals of Biomedical Engineering, 2020, 48, 2002-2027.	1.3	33

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37	Cardiac Tissue. , 2019, , 1073-1099.		3
38	An optimal gel patch for the injured heart. Nature Biomedical Engineering, 2019, 3, 592-593.	11.6	12
39	A healthy dose of chaos: Using fractal frameworks for engineering higher-fidelity biomedical systems. Biomaterials, 2019, 219, 119363.	5.7	28
40	Oneâ€Pot Synthesis of Unsaturated Polyester Bioelastomer with Controllable Material Curing for Microscale Designs. Advanced Healthcare Materials, 2019, 8, e1900245.	3.9	23
41	Macrophage Polarization with Angiopoietin-1 Peptide QHREDGS. ACS Biomaterials Science and Engineering, 2019, 5, 4542-4550.	2.6	10
42	A Platform for Generation of Chamber-Specific Cardiac Tissues and Disease Modeling. Cell, 2019, 176, 913-927.e18.	13.5	398
43	Biowire Model of Interstitial and Focal Cardiac Fibrosis. ACS Central Science, 2019, 5, 1146-1158.	5.3	78
44	New Frontiers for Biofabrication and Bioreactor Design in Microphysiological System Development. Trends in Biotechnology, 2019, 37, 1327-1343.	4.9	30
45	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.	3.9	1
46	A Multimaterial Microphysiological Platform Enabled by Rapid Casting of Elastic Microwires. Advanced Healthcare Materials, 2019, 8, e1801187.	3.9	26
47	Cardiovascular disease models: A game changing paradigm in drug discovery and screening. Biomaterials, 2019, 198, 3-26.	5.7	149
48	Building a better model of the retina. ELife, 2019, 8, .	2.8	3
49	Method for the Fabrication of Elastomeric Polyester Scaffolds for Tissue Engineering and Minimally Invasive Delivery. ACS Biomaterials Science and Engineering, 2018, 4, 3691-3703.	2.6	22
50	The use of microfabrication technology to address the challenges of building physiologically relevant vasculature. Current Opinion in Biomedical Engineering, 2018, 6, 8-16.	1.8	4
51	Organâ€Onâ€Aâ€Chip Platforms: A Convergence of Advanced Materials, Cells, and Microscale Technologies. Advanced Healthcare Materials, 2018, 7, 1700506.	3.9	227
52	Biomaterials Going Strong in Canada for Half a Century. ACS Biomaterials Science and Engineering, 2018, 4, 3625-3626.	2.6	0
53	Curvature facilitates podocyte culture in a biomimetic platform. Lab on A Chip, 2018, 18, 3112-3128.	3.1	22
54	Advances in organ-on-a-chip engineering. Nature Reviews Materials, 2018, 3, 257-278.	23.3	690

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55	Microfabrication of AngioChip, a biodegradable polymer scaffold with microfluidic vasculature. Nature Protocols, 2018, 13, 1793-1813.	5.5	58
56	Can We Engineer a Human Cardiac Patch for Therapy?. Circulation Research, 2018, 123, 244-265.	2.0	121
57	Review: Multimodal bioactive material approaches for wound healing. APL Bioengineering, 2018, 2, 021503.	3.3	46
58	Human Stem Cell-Derived Cardiac Model of Chronic Drug Exposure. ACS Biomaterials Science and Engineering, 2017, 3, 1911-1921.	2.6	20
59	Engagement of the medical-technology sector with society. Science Translational Medicine, 2017, 9, .	5.8	3
60	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
61	Organ-on-a-chip devices advance to market. Lab on A Chip, 2017, 17, 2395-2420.	3.1	307
62	Moldable elastomeric polyester-carbon nanotube scaffolds for cardiac tissue engineering. Acta Biomaterialia, 2017, 52, 81-91.	4.1	135
63	InVADE: Integrated Vasculature for Assessing Dynamic Events. Advanced Functional Materials, 2017, 27, 1703524.	7.8	62
64	Special Issue on Tissue Engineering. ACS Biomaterials Science and Engineering, 2017, 3, 1880-1883.	2.6	4
65	Kinase inhibitor screening using artificial neural networks and engineered cardiac biowires. Scientific Reports, 2017, 7, 11807.	1.6	25
66	Synergistic Engineering: Organoids Meet Organs-on-a-Chip. Cell Stem Cell, 2017, 21, 297-300.	5.2	200
67	Flexible shape-memory scaffold for minimally invasive delivery of functional tissues. Nature Materials, 2017, 16, 1038-1046.	13.3	295
68	Biophysical stimulation for <i>inÂvitro</i> engineering of functional cardiac tissues. Clinical Science, 2017, 131, 1393-1404.	1.8	18
69	Biochemical and Biophysical Cues in Matrix Design for Chronic and Diabetic Wound Treatment. Tissue Engineering - Part B: Reviews, 2017, 23, 9-26.	2.5	30
70	Organsâ€onâ€aâ€Chip: InVADE: Integrated Vasculature for Assessing Dynamic Events (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock	7.8	1
71	Collagen scaffold enhances the regenerative properties of mesenchymal stromal cells. PLoS ONE, 2017, 12, e0187348.	1.1	60
72	Engineered Muscle Tissues for Disease Modeling and Drug Screening Applications. Current Pharmaceutical Design, 2017, 23, 2991-3004.	0.9	15

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73	Biomaterials in myocardial tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 11-28.	1.3	182
74	Strategies and Challenges to Myocardial Replacement Therapy. Stem Cells Translational Medicine, 2016, 5, 410-416.	1.6	35
75	Signals from within. Nature Materials, 2016, 15, 596-597.	13.3	4
76	Highly Elastic and Moldable Polyester Biomaterial for Cardiac Tissue Engineering Applications. ACS Biomaterials Science and Engineering, 2016, 2, 780-788.	2.6	79
77	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.	3.3	108
78	Resolving Myocardial Activation With Novel Omnipolar Electrograms. Circulation: Arrhythmia and Electrophysiology, 2016, 9, e004107.	2.1	54
79	Distilling complexity to advance cardiac tissue engineering. Science Translational Medicine, 2016, 8, 342ps13.	5.8	138
80	Human pluripotent stem cell-derived cardiomyocyte based models for cardiotoxicity and drug discovery. Expert Opinion on Drug Safety, 2016, 15, 1455-1458.	1.0	16
81	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.	1.0	48
82	Editorial: Tissue engineering of the heart. Advanced Drug Delivery Reviews, 2016, 96, 1-2.	6.6	0
83	Biodegradable scaffold with built-in vasculature for organ-on-a-chip engineering and direct surgical anastomosis. Nature Materials, 2016, 15, 669-678.	13.3	471
84	Maturing human pluripotent stem cell-derived cardiomyocytes in human engineered cardiac tissues. Advanced Drug Delivery Reviews, 2016, 96, 110-134.	6.6	229
85	Combined hypoxia and sodium nitrite pretreatment for cardiomyocyte protection <i>in vitro</i>. Biotechnology Progress, 2015, 31, 482-492.	1.3	11
86	Modifications of collagen-based biomaterials with immobilized growth factors or peptides. Methods, 2015, 84, 44-52.	1.9	26
87	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.	1.6	7
88	Biomaterials for cardiac tissue engineering. Biomedical Materials (Bristol), 2015, 10, 030301.	1.7	4
89	Biomaterial based cardiac tissue engineering and its applications. Biomedical Materials (Bristol), 2015, 10, 034004.	1.7	79
90	Hydrogels With Integrin-Binding Angiopoietin-1â€“Derived Peptide, QHREDGS, for Treatment of Acute Myocardial Infarction. Circulation: Heart Failure, 2015, 8, 333-341.	1.6	39

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91	Platform technology for scalable assembly of instantaneously functional mosaic tissues. Science Advances, 2015, 1, e1500423.	4.7	42
92	Spatial and Electrical Factors Regulating Cardiac Regeneration and Assembly. , 2015, , 71-92.		3
93	Cardiac tissue regeneration in bioreactors. , 2014, , 640-668.		1
94	Cardiac Tissue Engineering. , 2014, , 771-792.		5
95	Microfabricated perfusable cardiac biowire: a platform that mimics native cardiac bundle. Lab on A Chip, 2014, 14, 869-882.	3.1	121
96	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.	5.7	31
97	Angiopoietin-1 peptide QHREDGS promotes osteoblast differentiation, bone matrix deposition and mineralization on biomedical materials. Biomaterials Science, 2014, 2, 1384-1398.	2.6	19
98	Integrin-linked kinase mediates force transduction in cardiomyocytes by modulating SERCA2a/PLN function. Nature Communications, 2014, 5, 4533.	5.8	42
99	The Role of Tissue Engineering and Biomaterials in Cardiac Regenerative Medicine. Canadian Journal of Cardiology, 2014, 30, 1307-1322.	0.8	49
100	Bioreactor for modulation of cardiac microtissue phenotype by combined static stretch and electrical stimulation. Biofabrication, 2014, 6, 024113.	3.7	53
101	Cardiac Tissue Vascularization. Journal of Cardiovascular Pharmacology and Therapeutics, 2014, 19, 382-393.	1.0	34
102	Design and Fabrication of Biological Wires. Methods in Molecular Biology, 2014, 1181, 157-165.	0.4	1
103	Cardiac tissue engineering. Current Opinion in Chemical Engineering, 2013, 2, 41-52.	3.8	28
104	Materials Science and Tissue Engineering: Repairing the Heart. Mayo Clinic Proceedings, 2013, 88, 884-898.	1.4	95
105	Generation of tissue constructs for cardiovascular regenerative medicine: From cell procurement to scaffold design. Biotechnology Advances, 2013, 31, 722-735.	6.0	41
106	Topological and electrical control of cardiac differentiation and assembly. Stem Cell Research and Therapy, 2013, 4, 14.	2.4	36
107	Biowire: a platform for maturation of human pluripotent stem cellâ€“derived cardiomyocytes. Nature Methods, 2013, 10, 781-787.	9.0	784
108	Microfluidic Cell Culture Techniques. , 2013, , 303-321.		1

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109	Maturation of stem cell-derived human heart tissue by mimicking fetal heart rate. Future Cardiology, 2013, 9, 751-754.	0.5	6
110	Cell Adhesion and Detachment. , 2013, , 1-9.		1
111	A standalone perfusion platform for drug testing and target validation in micro-vessel networks. Biomicrofluidics, 2013, 7, 44125.	1.2	31
112	Enrichment of live unlabelled cardiomyocytes from heterogeneous cell populations using manipulation of cell settling velocity by magnetic field. Biomicrofluidics, 2013, 7, 014110.	1.2	19
113	Engineering Cardiac Tissues from Pluripotent Stem Cells for Drug Screening and Studies of Cell Maturation. Israel Journal of Chemistry, 2013, 53, 680-694.	1.0	1
114	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.	3.3	252
115	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.	0.7	6
116	Mitochondrial Hyperfusion during Oxidative Stress Is Coupled to a Dysregulation in Calcium Handling within a C2C12 Cell Model. PLoS ONE, 2013, 8, e69165.	1.1	36
117	QHREDGS Enhances Tube Formation, Metabolism and Survival of Endothelial Cells in Collagen-Chitosan Hydrogels. PLoS ONE, 2013, 8, e72956.	1.1	36
118	Vascular Endothelial Growth Factor Secretion by Nonmyocytes Modulates Connexin-43 Levels in Cardiac Organoids. Tissue Engineering - Part A, 2012, 18, 1771-1783.	1.6	41
119	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.	3.3	152
120	A Microfabricated Platform to Measure and Manipulate the Mechanics of Engineered Cardiac Microtissues. Tissue Engineering - Part A, 2012, 18, 910-919.	1.6	355
121	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.	3.7	30
122	Controlled delivery of thymosin Î²4 for tissue engineering and cardiac regenerative medicine. Annals of the New York Academy of Sciences, 2012, 1269, 16-25.	1.8	17
123	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.	0.8	38
124	Hydrogel Substrate Stiffness and Topography Interact to Induce Contact Guidance in Cardiac Fibroblasts. Macromolecular Bioscience, 2012, 12, 1342-1353.	2.1	42
125	Aged Human Cells Rejuvenated by Cytokine Enhancement of Biomaterials for Surgical Ventricular Restoration. Journal of the American College of Cardiology, 2012, 60, 2237-2249.	1.2	41
126	Label-Free Enrichment of Functional Cardiomyocytes Using Microfluidic Deterministic Lateral Flow Displacement. PLoS ONE, 2012, 7, e37619.	1.1	39

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127	Engineering of Oriented Myocardium on Three-Dimensional Micropatterned Collagen-Chitosan Hydrogel. International Journal of Artificial Organs, 2012, 35, 237-250.	0.7	37
128	Cardiac tissue engineering: current state and perspectives. Frontiers in Bioscience - Landmark, 2012, 17, 1533.	3.0	47
129	Mosaic Hydrogels: Oneâ€Step Formation of Multiscale Soft Materials. Advanced Materials, 2012, 24, 3650-3658.	11.1	113
130	Hydrogels: Mosaic Hydrogels: Oneâ€Step Formation of Multiscale Soft Materials (Adv. Mater. 27/2012). Advanced Materials, 2012, 24, 3582-3582.	11.1	1
131	A peptide-modified chitosanâ€"collagen hydrogel for cardiac cell culture and delivery. Acta Biomaterialia, 2012, 8, 1022-1036.	4.1	138
132	Engineered Heart Tissue Model of Diabetic Myocardium. Tissue Engineering - Part A, 2011, 17, 1869-1878.	1.6	26
133	Cardiac Tissue Engineering. , 2011, , 421-456.		5
134	Engineered heart tissue enables study of residual undifferentiated embryonic stem cell activity in a cardiac environment. Biotechnology and Bioengineering, 2011, 108, 704-719.	1.7	22
135	Controlled release of thymosin Î²4 using collagenâ€"chitosan composite hydrogels promotes epicardial cell migration and angiogenesis. Journal of Controlled Release, 2011, 155, 376-385.	4.8	85
136	Engineered cardiac tissues. Current Opinion in Biotechnology, 2011, 22, 706-714.	3.3	66
137	Stem Cell-Based Cardiac Tissue Engineering. Journal of Cardiovascular Translational Research, 2011, 4, 592-602.	1.1	43
138	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.	1.3	71
139	Endothelial cells guided by immobilized gradients of vascular endothelial growth factor on porous collagen scaffolds. Acta Biomaterialia, 2011, 7, 3027-3035.	4.1	73
140	Biodegradable collagen patch with covalently immobilized VEGF for myocardial repair. Biomaterials, 2011, 32, 1280-1290.	5.7	211
141	Biphasic Electrical Field Stimulation Aids in Tissue Engineering of Multicell-Type Cardiac Organoids. Tissue Engineering - Part A, 2011, 17, 1465-1477.	1.6	86
142	Micro- and nanotechnology in cardiovascular tissue engineering. Nanotechnology, 2011, 22, 494003.	1.3	55
143	Cardiac Tissue. , 2011, , 877-909.		0
144	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.	2.1	40

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145	Influence of substrate stiffness on the phenotype of heart cells. Biotechnology and Bioengineering, 2010, 105, 1148-1160.	1.7	307
146	Bioactive Scaffolds for Engineering Vascularized Cardiac Tissues. Macromolecular Bioscience, 2010, 10, 1286-1301.	2.1	41
147	Macromol. Biosci. 11/2010. Macromolecular Bioscience, 2010, 10, n/a-n/a.	2.1	0
148	Engineering surfaces for site-specific vascular differentiation of mouse embryonic stem cells. Acta Biomaterialia, 2010, 6, 1904-1916.	4.1	26
149	Scaffolds with covalently immobilized VEGF and Angiopoietin-1 for vascularization of engineered tissues. Biomaterials, 2010, 31, 226-241.	5.7	268
150	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.	3.3	83
151	Challenges in Cardiac Tissue Engineering. Tissue Engineering - Part B: Reviews, 2010, 16, 169-187.	2.5	431
152	Hydrogels modified with QHREDGS peptide support cardiomyocyte survival in vitro and after sub-cutaneous implantation. Soft Matter, 2010, 6, 5089.	1.2	31
153	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
154	Optical Mapping of Impulse Propagation in Engineered Cardiac Tissue. Tissue Engineering - Part A, 2009, 15, 851-860.	1.6	52
155	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.	2.1	82
156	Spatiotemporal tracking of cells in tissue-engineered cardiac organoids. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 196-207.	1.3	33
157	Electrical stimulation systems for cardiac tissue engineering. Nature Protocols, 2009, 4, 155-173.	5.5	463
158	Biomimetic approach to tissue engineering. Seminars in Cell and Developmental Biology, 2009, 20, 665-673.	2.3	135
159	Cell culture chips for simultaneous application of topographical and electrical cues enhance phenotype of cardiomyocytes. Lab on A Chip, 2009, 9, 564-575.	3.1	122
160	Controlled capture and release of cardiac fibroblasts using peptide-functionalized alginate gels in microfluidic channels. Lab on A Chip, 2009, 9, 1507.	3.1	56
161	Deterministic Lateral Displacement as a Means to Enrich Large Cells for Tissue Engineering. Analytical Chemistry, 2009, 81, 9178-9182.	3.2	80
162	Vascular endothelial growth factor immobilized in collagen scaffold promotes penetration and proliferation of endothelial cells. Acta Biomaterialia, 2008, 4, 477-489.	4.1	263

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163	Effects of electrical stimulation in C2C12 muscle constructs. Journal of Tissue Engineering and Regenerative Medicine, 2008, 2, 279-287.	1.3	102
164	Preâ€treatment of synthetic elastomeric scaffolds by cardiac fibroblasts improves engineered heart tissue. Journal of Biomedical Materials Research - Part A, 2008, 86A, 713-724.	2.1	166
165	Pulsatile perfusion bioreactor for cardiac tissue engineering. Biotechnology Progress, 2008, 24, 907-920.	1.3	95
166	Cardiac tissue engineering using perfusion bioreactor systems. Nature Protocols, 2008, 3, 719-738.	5.5	249
167	Feasibility Study of a Novel Urinary Bladder Bioreactor. Tissue Engineering - Part A, 2008, 14, 339-348.	1.6	44
168	Microfluidic depletion of endothelial cells, smooth muscle cells, and fibroblasts from heterogeneous suspensions. Lab on A Chip, 2008, 8, 462.	3.1	69
169	Cell nutrition. , 2008, , 327-362.		6
170	Cardiac Tissue. , 2008, , 1038-1059.		0
171	Synthetic Oxygen Carriers in Cardiac Tissue Engineering. Artificial Cells, Blood Substitutes, and Biotechnology, 2007, 35, 135-148.	0.9	24
172	Practical Aspects of Cardiac Tissue Engineering With Electrical Stimulation. Methods in Molecular Medicine, 2007, 140, 291-307.	0.8	38
173	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
174	Tissue engineering approaches for the development of a contractile cardiac patch. Future Cardiology, 2007, 3, 425-434.	0.5	11
175	Peptide-Mediated Selective Adhesion of Smooth Muscle and Endothelial Cells in Microfluidic Shear Flow. Langmuir, 2007, 23, 5050-5055.	1.6	135
176	Photocrosslinkable hydrogel for myocyte cell culture and injection. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 81B, 312-322.	1.6	113
177	Interactive effects of surface topography and pulsatile electrical field stimulation on orientation and elongation of fibroblasts and cardiomyocytes. Biomaterials, 2007, 28, 4277-4293.	5.7	172
178	Microfluidic patterning for fabrication of contractile cardiac organoids. Biomedical Microdevices, 2007, 9, 149-157.	1.4	179
179	Biomimetic Approach to Cardiac Tissue Engineering: Oxygen Carriers and Channeled Scaffolds. Tissue Engineering, 2006, 12, 2077-2091.	4.9	296
180	Advanced Tools for Tissue Engineering: Scaffolds, Bioreactors, and Signaling. Tissue Engineering, 2006, 12, 3285-3305.	4.9	255

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181	A photolithographic method to create cellular micropatterns. Biomaterials, 2006, 27, 4755-4764.	5.7	118
182	Size-based microfluidic enrichment of neonatal rat cardiac cell populations. Biomedical Microdevices, 2006, 8, 231-237.	1.4	71
183	Oxygen gradients correlate with cell density and cell viability in engineered cardiac tissue. Biotechnology and Bioengineering, 2006, 93, 332-343.	1.7	360
184	Cardiac tissue engineering: effects of bioreactor flow environment on tissue constructs. Journal of Chemical Technology and Biotechnology, 2006, 81, 485-490.	1.6	35
185	Biophysical regulation during cardiac development and application to tissue engineering. International Journal of Developmental Biology, 2006, 50, 233-243.	0.3	57
186	Micro- and nanotechnology in cell separation. International Journal of Nanomedicine, 2006, 1, 3-14.	3.3	150
187	Biomimetic Approach to Cardiac Tissue Engineering: Oxygen Carriers and Channeled Scaffolds. Tissue Engineering, 2006, .	4.9	0
188	Functional Tissue Engineering of Cartilage and Myocardium. , 2005, , 501-530.		2
189	Tissue Engineering of Cartilage and Myocardium. , 2005, , 99-133.		3
190	A NOVEL COMPOSITE SCAFFOLD FOR CARDIAC TISSUE ENGINEERING. In Vitro Cellular and Developmental Biology - Animal, 2005, 41, 188.	0.7	120
191	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.	1.5	232
192	Mechanical Properties and Remodeling of Hybrid Cardiac Constructs Made from Heart Cells, Fibrin, and Biodegradable, Elastomeric Knitted Fabric. Tissue Engineering, 2005, 11, 1122-1132.	4.9	120
193	Cardiac tissue engineering. Journal of the Serbian Chemical Society, 2005, 70, 541-556.	0.4	32
194	Cell Seeding of Polymer Scaffolds. , 2004, 238, 131-146.		31
195	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.	3.3	831
196	Medium perfusion enables engineering of compact and contractile cardiac tissue. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H507-H516.	1.5	296
197	High-density seeding of myocyte cells for cardiac tissue engineering. Biotechnology and Bioengineering, 2003, 82, 403-414.	1.7	268