# Milica Radisic

## List of Publications by Year in Descending Order

**Source:** https://exaly.com/author-pdf/1564630/milica-radisic-publications-by-year.pdf
**Version:** 2024-04-09



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|---|---|---|---|
| 188<br>papers | 12,966<br>citations | 58<br>h-index | 111<br>g-index |
| 221<br>ext. papers | 14,816<br>ext. citations | 9.7<br>avg, IF | 6.72<br>L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 188 | 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**, | 7.2 | 4 |
| 187 | Microfabricated Systems for Cardiovascular Tissue Modeling **2022**, 193-232 | | |
| 186 | Cardiovascular signatures of COVID-19 predict mortality and identify barrier stabilizing therapies.. *EBioMedicine*, **2022**, 78, 103982 | 8.8 | 2 |
| 185 | Design and Fabrication of Biological Wires for Cardiac Fibrosis Disease Modeling. *Methods in Molecular Biology*, **2022**, 175-190 | 1.4 | 0 |
| 184 | A framework for developing sex-specific engineered heart models. *Nature Reviews Materials*, **2021**, 1-19 | 73.3 | 5 |
| 183 | Extracellular Vesicles in Cardiac Regeneration: Potential Applications for Tissues-on-a-Chip. *Trends in Biotechnology*, **2021**, 39, 755-773 | 15.1 | 10 |
| 182 | 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 | 4.3 | 4 |
| 181 | A well plate-based multiplexed platform for incorporation of organoids into an organ-on-a-chip system with a perfusable vasculature. *Nature Protocols*, **2021**, 16, 2158-2189 | 18.8 | 14 |
| 180 | Drawing Inspiration from Developmental Biology for Cardiac Tissue Engineers. *Advanced Biology*, **2021**, 5, e2000190 | | 0 |
| 179 | Bioengineering strategies to control epithelial-to-mesenchymal transition for studies of cardiac development and disease. *APL Bioengineering*, **2021**, 5, 021504 | 6.6 | 0 |
| 178 | Beyond Polydimethylsiloxane: Alternative Materials for Fabrication of Organ-on-a-Chip Devices and Microphysiological Systems. *ACS Biomaterials Science and Engineering*, **2021**, 7, 2880-2899 | 5.5 | 50 |
| 177 | Macrophage immunomodulation through new polymers that recapitulate functional effects of itaconate as a power house of innate immunity. *Advanced Functional Materials*, **2021**, 31, 2003341 | 15.6 | 3 |
| 176 | Heart-on-a-Chip Platform for Assessing Toxicity of Air Pollution Related Nanoparticles. *Advanced Materials Technologies*, **2021**, 6, 2000726 | 6.8 | 6 |
| 175 | Biomechanics of Wound Healing in an Equine Limb Model: Effect of Location and Treatment with a Peptide-Modified Collagen-Chitosan Hydrogel. *ACS Biomaterials Science and Engineering*, **2021**, 7, 265-278 | 5.5 | 4 |
| 174 | An Organ-on-a-Chip System to Study Anaerobic Bacteria in Intestinal Health and Disease.. *Med*, **2021**, 2, 16-18 | 31.7 | |
| 173 | A New Role for Extracellular Vesicles in Cardiac Tissue Engineering and Regenerative Medicine.. *Advanced NanoBiomed Research*, **2021**, 1, 2100047 | 0 | 2 |
| 172 | Organ-on-a-chip platforms for evaluation of environmental nanoparticle toxicity. *Bioactive Materials*, **2021**, 6, 2801-2819 | 16.7 | 15 |

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| 171 | Organs-on-a-chip models for biological research. *Cell*, **2021**, 184, 4597-4611 | 56.2 | 26 |
| 170 | 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 | 5.8 | 4 |
| 169 | h-FIBER: Microfluidic Topographical Hollow Fiber for Studies of Glomerular Filtration Barrier. *ACS Central Science*, **2020**, 6, 903-912 | 16.8 | 30 |
| 168 | Elastic Biomaterial Scaffold with Spatially Varying Adhesive Design. *Advanced Biology*, **2020**, 4, e2000046 | 3.5 | 1 |
| 167 | Recapitulating pancreatic tumor microenvironment through synergistic use of patient organoids and organ-on-a-chip vasculature. *Advanced Functional Materials*, **2020**, 30, 2000545 | 15.6 | 24 |
| 166 | Everolimus Rescues the Phenotype of Elastin Insufficiency in Patient Induced Pluripotent Stem Cell-Derived Vascular Smooth Muscle Cells. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2020**, 40, 1325-1339 | 9.4 | 9 |
| 165 | Advanced Strategies for Modulation of the Material‐Macrophage Interface. *Advanced Functional Materials*, **2020**, 30, 1909331 | 15.6 | 30 |
| 164 | Facile Method for Fabrication of Meter-Long Multifunctional Hydrogel Fibers with Controllable Biophysical and Biochemical Features. *ACS Applied Materials & Interfaces*, **2020**, 12, 9080-9089 | 9.5 | 25 |
| 163 | 3D Printing of Vascular Tubes Using Bioelastomer Prepolymers by Freeform Reversible Embedding. *ACS Biomaterials Science and Engineering*, **2020**, 6, 1333-1343 | 5.5 | 19 |
| 162 | Cardiac tissue engineering **2020**, 593-616 | | 1 |
| 161 | Functional arrays of human pluripotent stem cell-derived cardiac microtissues. *Scientific Reports*, **2020**, 10, 6919 | 4.9 | 14 |
| 160 | Towards chamber specific heart-on-a-chip for drug testing applications. *Advanced Drug Delivery Reviews*, **2020**, 165-166, 60-76 | 18.5 | 25 |
| 159 | Mapping signalling perturbations in myocardial fibrosis via the integrative phosphoproteomic profiling of tissue from diverse sources. *Nature Biomedical Engineering*, **2020**, 4, 889-900 | 19 | 6 |
| 158 | Engineering microenvironment for human cardiac tissue assembly in heart-on-a-chip platform. *Matrix Biology*, **2020**, 85-86, 189-204 | 11.4 | 36 |
| 157 | Biomaterials and Culture Systems for Development of Organoid and Organ-on-a-Chip Models. *Annals of Biomedical Engineering*, **2020**, 48, 2002-2027 | 4.7 | 22 |
| 156 | A Platform for Generation of Chamber-Specific Cardiac Tissues and Disease Modeling. *Cell*, **2019**, 176, 913-927.e18 | 56.2 | 239 |
| 155 | Biowire Model of Interstitial and Focal Cardiac Fibrosis. *ACS Central Science*, **2019**, 5, 1146-1158 | 16.8 | 43 |
| 154 | New Frontiers for Biofabrication and Bioreactor Design in Microphysiological System Development. *Trends in Biotechnology*, **2019**, 37, 1327-1343 | 15.1 | 20 |

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|---|---|---|---|
| 153 | 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 | 10.1 | |
| 152 | A Multimaterial Microphysiological Platform Enabled by Rapid Casting of Elastic Microwires. *Advanced Healthcare Materials*, **2019**, 8, e1801187 | 10.1 | 17 |
| 151 | Cardiac Tissue **2019**, 1073-1099 | | 3 |
| 150 | An optimal gel patch for the injured heart. *Nature Biomedical Engineering*, **2019**, 3, 592-593 | 19 | 7 |
| 149 | A healthy dose of chaos: Using fractal frameworks for engineering higher-fidelity biomedical systems. *Biomaterials*, **2019**, 219, 119363 | 15.6 | 19 |
| 148 | One-Pot Synthesis of Unsaturated Polyester Bioelastomer with Controllable Material Curing for Microscale Designs. *Advanced Healthcare Materials*, **2019**, 8, e1900245 | 10.1 | 13 |
| 147 | Macrophage Polarization with Angiopoietin-1 Peptide QHREDGS. *ACS Biomaterials Science and Engineering*, **2019**, 5, 4542-4550 | 5.5 | 6 |
| 146 | Building a better model of the retina. *ELife*, **2019**, 8, | 8.9 | 2 |
| 145 | Cardiovascular disease models: A game changing paradigm in drug discovery and screening. *Biomaterials*, **2019**, 198, 3-26 | 15.6 | 88 |
| 144 | Method for the Fabrication of Elastomeric Polyester Scaffolds for Tissue Engineering and Minimally Invasive Delivery. *ACS Biomaterials Science and Engineering*, **2018**, 4, 3691-3703 | 5.5 | 8 |
| 143 | The use of microfabrication technology to address the challenges of building physiologically relevant vasculature. *Current Opinion in Biomedical Engineering*, **2018**, 6, 8-16 | 4.4 | 3 |
| 142 | Organ-On-A-Chip Platforms: A Convergence of Advanced Materials, Cells, and Microscale Technologies. *Advanced Healthcare Materials*, **2018**, 7, 1700506 | 10.1 | 155 |
| 141 | Advances in organ-on-a-chip engineering. *Nature Reviews Materials*, **2018**, 3, 257-278 | 73.3 | 426 |
| 140 | Microfabrication of AngioChip, a biodegradable polymer scaffold with microfluidic vasculature. *Nature Protocols*, **2018**, 13, 1793-1813 | 18.8 | 38 |
| 139 | Can We Engineer a Human Cardiac Patch for Therapy?. *Circulation Research*, **2018**, 123, 244-265 | 15.7 | 90 |
| 138 | Review: Multimodal bioactive material approaches for wound healing. *APL Bioengineering*, **2018**, 2, 021503 | 6.6 | 26 |
| 137 | Curvature facilitates podocyte culture in a biomimetic platform. *Lab on A Chip*, **2018**, 18, 3112-3128 | 7.2 | 12 |
| 136 | Human Stem Cell-Derived Cardiac Model of Chronic Drug Exposure. *ACS Biomaterials Science and Engineering*, **2017**, 3, 1911-1921 | 5.5 | 18 |

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|---|---|---|---|
| 135 | Engagement of the medical-technology sector with society. *Science Translational Medicine*, **2017**, 9, | 17.5 | 3 |
| 134 | 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 | 6.4 | 44 |
| 133 | Organ-on-a-chip devices advance to market. *Lab on A Chip*, **2017**, 17, 2395-2420 | 7.2 | 224 |
| 132 | Moldable elastomeric polyester-carbon nanotube scaffolds for cardiac tissue engineering. *Acta Biomaterialia*, **2017**, 52, 81-91 | 10.8 | 91 |
| 131 | InVADE: Integrated Vasculature for Assessing Dynamic Events. *Advanced Functional Materials*, **2017**, 27, 1703524 | 15.6 | 37 |
| 130 | Collagen scaffold enhances the regenerative properties of mesenchymal stromal cells. *PLoS ONE*, **2017**, 12, e0187348 | 3.7 | 38 |
| 129 | Kinase inhibitor screening using artificial neural networks and engineered cardiac biowires. *Scientific Reports*, **2017**, 7, 11807 | 4.9 | 22 |
| 128 | Synergistic Engineering: Organoids Meet Organs-on-a-Chip. *Cell Stem Cell*, **2017**, 21, 297-300 | 18 | 146 |
| 127 | Flexible shape-memory scaffold for minimally invasive delivery of functional tissues. *Nature Materials*, **2017**, 16, 1038-1046 | 27 | 217 |
| 126 | Biophysical stimulation for engineering of functional cardiac tissues. *Clinical Science*, **2017**, 131, 1393-1404 | 6.5 | 16 |
| 125 | Biochemical and Biophysical Cues in Matrix Design for Chronic and Diabetic Wound Treatment. *Tissue Engineering - Part B: Reviews*, **2017**, 23, 9-26 | 7.9 | 19 |
| 124 | Organs-on-a-Chip: InVADE: Integrated Vasculature for Assessing Dynamic Events (Adv. Funct. Mater. 46/2017). *Advanced Functional Materials*, **2017**, 27, | 15.6 | 1 |
| 123 | Engineered Muscle Tissues for Disease Modeling and Drug Screening Applications. *Current Pharmaceutical Design*, **2017**, 23, 2991-3004 | 3.3 | 11 |
| 122 | Maturing human pluripotent stem cell-derived cardiomyocytes in human engineered cardiac tissues. *Advanced Drug Delivery Reviews*, **2016**, 96, 110-34 | 18.5 | 148 |
| 121 | Biomaterials in myocardial tissue engineering. *Journal of Tissue Engineering and Regenerative Medicine*, **2016**, 10, 11-28 | 4.4 | 136 |
| 120 | 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 | 11.5 | 77 |
| 119 | Resolving Myocardial Activation With Novel Omnipolar Electrograms. *Circulation: Arrhythmia and Electrophysiology*, **2016**, 9, e004107 | 6.4 | 35 |
| 118 | Distilling complexity to advance cardiac tissue engineering. *Science Translational Medicine*, **2016**, 8, 342ps13 | 17.5 | 108 |

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| 117 | Human pluripotent stem cell-derived cardiomyocyte based models for cardiotoxicity and drug discovery. *Expert Opinion on Drug Safety*, **2016**, 15, 1455-1458 | 4.1 | 14 |
| 116 | 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 | 3.4 | 33 |
| 115 | Biodegradable scaffold with built-in vasculature for organ-on-a-chip engineering and direct surgical anastomosis. *Nature Materials*, **2016**, 15, 669-78 | 27 | 354 |
| 114 | Strategies and Challenges to Myocardial Replacement Therapy. *Stem Cells Translational Medicine*, **2016**, 5, 410-6 | 6.9 | 30 |
| 113 | Tissue engineering: Signals from within. *Nature Materials*, **2016**, 15, 596-7 | 27 | 3 |
| 112 | Highly Elastic and Moldable Polyester Biomaterial for Cardiac Tissue Engineering Applications. *ACS Biomaterials Science and Engineering*, **2016**, 2, 780-788 | 5.5 | 58 |
| 111 | Combined hypoxia and sodium nitrite pretreatment for cardiomyocyte protection in vitro. *Biotechnology Progress*, **2015**, 31, 482-92 | 2.8 | 8 |
| 110 | Modifications of collagen-based biomaterials with immobilized growth factors or peptides. *Methods*, **2015**, 84, 44-52 | 4.6 | 21 |
| 109 | PI3K Phosphorylation Is Linked to Improved Electrical Excitability in an In Vitro Engineered Heart Tissue Disease Model System. *Tissue Engineering - Part A*, **2015**, 21, 2379-89 | 3.9 | 6 |
| 108 | Biomaterials for cardiac tissue engineering. *Biomedical Materials (Bristol)*, **2015**, 10, 030301 | 3.5 | 3 |
| 107 | Biomaterial based cardiac tissue engineering and its applications. *Biomedical Materials (Bristol)*, **2015**, 10, 034004 | 3.5 | 66 |
| 106 | Hydrogels with integrin-binding angiopoietin-1-derived peptide, QHREDGS, for treatment of acute myocardial infarction. *Circulation: Heart Failure*, **2015**, 8, 333-41 | 7.6 | 29 |
| 105 | Platform technology for scalable assembly of instantaneously functional mosaic tissues. *Science Advances*, **2015**, 1, e1500423 | 14.3 | 36 |
| 104 | Spatial and Electrical Factors Regulating Cardiac Regeneration and Assembly **2015**, 71-92 | | 3 |
| 103 | Microfabricated perfusable cardiac biowire: a platform that mimics native cardiac bundle. *Lab on A Chip*, **2014**, 14, 869-82 | 7.2 | 98 |
| 102 | Inhibition of apoptosis in human induced pluripotent stem cells during expansion in a defined culture using angiopoietin-1 derived peptide QHREDGS. *Biomaterials*, **2014**, 35, 7786-99 | 15.6 | 25 |
| 101 | Angiopoietin-1 peptide QHREDGS promotes osteoblast differentiation, bone matrix deposition and mineralization on biomedical materials. *Biomaterials Science*, **2014**, 2, 1384-1398 | 7.4 | 16 |
| 100 | Integrin-linked kinase mediates force transduction in cardiomyocytes by modulating SERCA2a/PLN function. *Nature Communications*, **2014**, 5, 4533 | 17.4 | 34 |

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| 99 | The role of tissue engineering and biomaterials in cardiac regenerative medicine. *Canadian Journal of Cardiology*, **2014**, 30, 1307-22 | 3.8 | 42 |
| 98 | Bioreactor for modulation of cardiac microtissue phenotype by combined static stretch and electrical stimulation. *Biofabrication*, **2014**, 6, 024113 | 10.5 | 47 |
| 97 | Cardiac Tissue Vascularization: From Angiogenesis to Microfluidic Blood Vessels. *Journal of Cardiovascular Pharmacology and Therapeutics*, **2014**, 19, 382-393 | 2.6 | 32 |
| 96 | Cardiac Tissue Engineering **2014**, 771-792 | | 4 |
| 95 | Design and fabrication of biological wires. *Methods in Molecular Biology*, **2014**, 1181, 157-65 | 1.4 | 1 |
| 94 | Cardiac tissue engineering. *Current Opinion in Chemical Engineering*, **2013**, 2, 41-52 | 5.4 | 25 |
| 93 | Materials science and tissue engineering: repairing the heart. *Mayo Clinic Proceedings*, **2013**, 88, 884-98 | 6.4 | 85 |
| 92 | Generation of tissue constructs for cardiovascular regenerative medicine: from cell procurement to scaffold design. *Biotechnology Advances*, **2013**, 31, 722-35 | 17.8 | 37 |
| 91 | Topological and electrical control of cardiac differentiation and assembly. *Stem Cell Research and Therapy*, **2013**, 4, 14 | 8.3 | 29 |
| 90 | Biowire: a platform for maturation of human pluripotent stem cell-derived cardiomyocytes. *Nature Methods*, **2013**, 10, 781-7 | 21.6 | 624 |
| 89 | Microfluidic Cell Culture Techniques **2013**, 303-321 | | 0 |
| 88 | A standalone perfusion platform for drug testing and target validation in micro-vessel networks. *Biomicrofluidics*, **2013**, 7, 44125 | 3.2 | 28 |
| 87 | Enrichment of live unlabelled cardiomyocytes from heterogeneous cell populations using manipulation of cell settling velocity by magnetic field. *Biomicrofluidics*, **2013**, 7, 14110 | 3.2 | 18 |
| 86 | Engineering Cardiac Tissues from Pluripotent Stem Cells for Drug Screening and Studies of Cell Maturation. *Israel Journal of Chemistry*, **2013**, 53, n/a-n/a | 3.4 | 1 |
| 85 | 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 | 11.5 | 209 |
| 84 | Fusible core molding for the fabrication of branched, perfusable, three-dimensional microvessels for vascular tissue engineering. *International Journal of Artificial Organs*, **2013**, 36, 159-65 | 1.9 | 4 |
| 83 | Mitochondrial hyperfusion during oxidative stress is coupled to a dysregulation in calcium handling within a C2C12 cell model. *PLoS ONE*, **2013**, 8, e69165 | 3.7 | 30 |
| 82 | QHREDGS enhances tube formation, metabolism and survival of endothelial cells in collagen-chitosan hydrogels. *PLoS ONE*, **2013**, 8, e72956 | 3.7 | 29 |

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| 81 | Controlled delivery of thymosin ⍰ for tissue engineering and cardiac regenerative medicine. *Annals of the New York Academy of Sciences*, **2012**, 1269, 16-25 | 6.5 | 16 |
| 80 | Controlled release of thymosin ⍰ from injected collagen-chitosan hydrogels promotes angiogenesis and prevents tissue loss after myocardial infarction. *Regenerative Medicine*, **2012**, 7, 523-33 | 2.5 | 33 |
| 79 | Hydrogel substrate stiffness and topography interact to induce contact guidance in cardiac fibroblasts. *Macromolecular Bioscience*, **2012**, 12, 1342-53 | 5.5 | 32 |
| 78 | Aged human cells rejuvenated by cytokine enhancement of biomaterials for surgical ventricular restoration. *Journal of the American College of Cardiology*, **2012**, 60, 2237-49 | 15.1 | 38 |
| 77 | Label-free enrichment of functional cardiomyocytes using microfluidic deterministic lateral flow displacement. *PLoS ONE*, **2012**, 7, e37619 | 3.7 | 38 |
| 76 | Engineering of oriented myocardium on three-dimensional micropatterned collagen-chitosan hydrogel. *International Journal of Artificial Organs*, **2012**, 35, 237-50 | 1.9 | 35 |
| 75 | Cardiac tissue engineering: current state and perspectives. *Frontiers in Bioscience - Landmark*, **2012**, 17, 1533-50 | 2.8 | 41 |
| 74 | Mosaic hydrogels: one-step formation of multiscale soft materials. *Advanced Materials*, **2012**, 24, 3650-8 | 24 | 96 |
| 73 | Hydrogels: Mosaic Hydrogels: One-Step Formation of Multiscale Soft Materials (Adv. Mater. 27/2012). *Advanced Materials*, **2012**, 24, 3582-3582 | 24 | 1 |
| 72 | A peptide-modified chitosan-collagen hydrogel for cardiac cell culture and delivery. *Acta Biomaterialia*, **2012**, 8, 1022-36 | 10.8 | 115 |
| 71 | Vascular endothelial growth factor secretion by nonmyocytes modulates Connexin-43 levels in cardiac organoids. *Tissue Engineering - Part A*, **2012**, 18, 1771-83 | 3.9 | 35 |
| 70 | 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 | 11.5 | 135 |
| 69 | A microfabricated platform to measure and manipulate the mechanics of engineered cardiac microtissues. *Tissue Engineering - Part A*, **2012**, 18, 910-9 | 3.9 | 289 |
| 68 | 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 | 10.5 | 27 |
| 67 | Cardiac Tissue Engineering **2011**, 421-456 | | 5 |
| 66 | Engineered heart tissue enables study of residual undifferentiated embryonic stem cell activity in a cardiac environment. *Biotechnology and Bioengineering*, **2011**, 108, 704-19 | 4.9 | 20 |
| 65 | Controlled release of thymosin ⍰ using collagen-chitosan composite hydrogels promotes epicardial cell migration and angiogenesis. *Journal of Controlled Release*, **2011**, 155, 376-85 | 11.7 | 77 |
| 64 | Engineered cardiac tissues. *Current Opinion in Biotechnology*, **2011**, 22, 706-14 | 11.4 | 57 |

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|---|---|---|---|
| 63 | Stem cell-based cardiac tissue engineering. *Journal of Cardiovascular Translational Research*, **2011**, 4, 592-602 | 3.3 | 39 |
| 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 | 4.4 | 65 |
| 61 | Engineered heart tissue model of diabetic myocardium. *Tissue Engineering - Part A*, **2011**, 17, 1869-78 | 3.9 | 22 |
| 60 | Endothelial cells guided by immobilized gradients of vascular endothelial growth factor on porous collagen scaffolds. *Acta Biomaterialia*, **2011**, 7, 3027-35 | 10.8 | 67 |
| 59 | Biodegradable collagen patch with covalently immobilized VEGF for myocardial repair. *Biomaterials* , **2011**, 32, 1280-90 | 15.6 | 192 |
| 58 | Biphasic electrical field stimulation aids in tissue engineering of multicell-type cardiac organoids. *Tissue Engineering - Part A*, **2011**, 17, 1465-77 | 3.9 | 76 |
| 57 | Micro- and nanotechnology in cardiovascular tissue engineering. *Nanotechnology*, **2011**, 22, 494003 | 3.4 | 49 |
| 56 | Cardiac Tissue **2011**, 877-909 | | |
| 55 | 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, 3329-34 | 11.5 | 74 |
| 54 | Challenges in cardiac tissue engineering. *Tissue Engineering - Part B: Reviews*, **2010**, 16, 169-87 | 7.9 | 372 |
| 53 | Hydrogels modified with QHREDGS peptide support cardiomyocyte survival in vitro and after sub-cutaneous implantation. *Soft Matter*, **2010**, 6, 5089 | 3.6 | 27 |
| 52 | Photocrosslinkable chitosan modified with angiopoietin-1 peptide, QHREDGS, promotes survival of neonatal rat heart cells. *Journal of Biomedical Materials Research - Part A*, **2010**, 95, 105-17 | 5.4 | 37 |
| 51 | Influence of substrate stiffness on the phenotype of heart cells. *Biotechnology and Bioengineering*, **2010**, 105, 1148-60 | 4.9 | 252 |
| 50 | Bioactive scaffolds for engineering vascularized cardiac tissues. *Macromolecular Bioscience*, **2010**, 10, 1286-301 | 5.5 | 37 |
| 49 | Engineering surfaces for site-specific vascular differentiation of mouse embryonic stem cells. *Acta Biomaterialia*, **2010**, 6, 1904-16 | 10.8 | 23 |
| 48 | Scaffolds with covalently immobilized VEGF and Angiopoietin-1 for vascularization of engineered tissues. *Biomaterials*, **2010**, 31, 226-41 | 15.6 | 243 |
| 47 | Biomimetic Approaches to Design of Tissue Engineering Bioreactors. *NATO Science for Peace and Security Series A: Chemistry and Biology*, **2010**, 115-129 | 0.1 | |
| 46 | Optical mapping of impulse propagation in engineered cardiac tissue. *Tissue Engineering - Part A*, **2009**, 15, 851-60 | 3.9 | 47 |

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|---|---|---|---|
| 45 | Microfabricated poly(ethylene glycol) templates enable rapid screening of triculture conditions for cardiac tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2009**, 89, 616-31 | 5.4 | 77 |
| 44 | Spatiotemporal tracking of cells in tissue-engineered cardiac organoids. *Journal of Tissue Engineering and Regenerative Medicine*, **2009**, 3, 196-207 | 4.4 | 30 |
| 43 | Electrical stimulation systems for cardiac tissue engineering. *Nature Protocols*, **2009**, 4, 155-73 | 18.8 | 386 |
| 42 | Biomimetic approach to tissue engineering. *Seminars in Cell and Developmental Biology*, **2009**, 20, 665-73 | 7.5 | 114 |
| 41 | Cell culture chips for simultaneous application of topographical and electrical cues enhance phenotype of cardiomyocytes. *Lab on A Chip*, **2009**, 9, 564-75 | 7.2 | 109 |
| 40 | Controlled capture and release of cardiac fibroblasts using peptide-functionalized alginate gels in microfluidic channels. *Lab on A Chip*, **2009**, 9, 1507-10 | 7.2 | 52 |
| 39 | Deterministic lateral displacement as a means to enrich large cells for tissue engineering. *Analytical Chemistry*, **2009**, 81, 9178-82 | 7.8 | 76 |
| 38 | Cardiac tissue engineering using perfusion bioreactor systems. *Nature Protocols*, **2008**, 3, 719-38 | 18.8 | 222 |
| 37 | Feasibility study of a novel urinary bladder bioreactor. *Tissue Engineering - Part A*, **2008**, 14, 339-48 | 3.9 | 39 |
| 36 | Microfluidic depletion of endothelial cells, smooth muscle cells, and fibroblasts from heterogeneous suspensions. *Lab on A Chip*, **2008**, 8, 462-72 | 7.2 | 61 |
| 35 | Cell nutrition **2008**, 327-362 | | 5 |
| 34 | Vascular endothelial growth factor immobilized in collagen scaffold promotes penetration and proliferation of endothelial cells. *Acta Biomaterialia*, **2008**, 4, 477-89 | 10.8 | 230 |
| 33 | Effects of electrical stimulation in C2C12 muscle constructs. *Journal of Tissue Engineering and Regenerative Medicine*, **2008**, 2, 279-87 | 4.4 | 88 |
| 32 | Pre-treatment of synthetic elastomeric scaffolds by cardiac fibroblasts improves engineered heart tissue. *Journal of Biomedical Materials Research - Part A*, **2008**, 86, 713-24 | 5.4 | 139 |
| 31 | Pulsatile perfusion bioreactor for cardiac tissue engineering. *Biotechnology Progress*, **2008**, 24, 907-20 | 2.8 | 86 |
| 30 | Cardiac Tissue **2008**, 1038-1059 | | |
| 29 | Peptide-mediated selective adhesion of smooth muscle and endothelial cells in microfluidic shear flow. *Langmuir*, **2007**, 23, 5050-5 | 4 | 112 |
| 28 | Photocrosslinkable hydrogel for myocyte cell culture and injection. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2007**, 81, 312-22 | 3.5 | 99 |

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| 27 | Interactive effects of surface topography and pulsatile electrical field stimulation on orientation and elongation of fibroblasts and cardiomyocytes. *Biomaterials*, **2007**, 28, 4277-93 | 15.6 | 152 |
| 26 | Microfluidic patterning for fabrication of contractile cardiac organoids. *Biomedical Microdevices*, **2007**, 9, 149-57 | 3.7 | 159 |
| 25 | Synthetic oxygen carriers in cardiac tissue engineering. *Artificial Cells, Blood Substitutes, and Biotechnology*, **2007**, 35, 135-48 | | 23 |
| 24 | Practical aspects of cardiac tissue engineering with electrical stimulation. *Methods in Molecular Medicine*, **2007**, 140, 291-307 | | 34 |
| 23 | Surface Engineering in Microfluidic Devices for the Isolation of Smooth Muscle Cells and Endothelial Cells. *Materials Research Society Symposia Proceedings*, **2007**, 1004, 1 | | |
| 22 | Tissue engineering approaches for the development of a contractile cardiac patch. *Future Cardiology*, **2007**, 3, 425-34 | 1.3 | 8 |
| 21 | Oxygen gradients correlate with cell density and cell viability in engineered cardiac tissue. *Biotechnology and Bioengineering*, **2006**, 93, 332-43 | 4.9 | 310 |
| 20 | Cardiac tissue engineering: effects of bioreactor flow environment on tissue constructs. *Journal of Chemical Technology and Biotechnology*, **2006**, 81, 485-490 | 3.5 | 32 |
| 19 | Biophysical regulation during cardiac development and application to tissue engineering. *International Journal of Developmental Biology*, **2006**, 50, 233-43 | 1.9 | 52 |
| 18 | Biomimetic approach to cardiac tissue engineering: oxygen carriers and channeled scaffolds. *Tissue Engineering*, **2006**, 12, 2077-91 | | 261 |
| 17 | Advanced tools for tissue engineering: scaffolds, bioreactors, and signaling. *Tissue Engineering*, **2006**, 12, 3285-305 | | 223 |
| 16 | A photolithographic method to create cellular micropatterns. *Biomaterials*, **2006**, 27, 4755-64 | 15.6 | 103 |
| 15 | Size-based microfluidic enrichment of neonatal rat cardiac cell populations. *Biomedical Microdevices* , **2006**, 8, 231-7 | 3.7 | 54 |
| 14 | Micro- and nanotechnology in cell separation. *International Journal of Nanomedicine*, **2006**, 1, 3-14 | 7.3 | 94 |
| 13 | Biomimetic Approach to Cardiac Tissue Engineering: Oxygen Carriers and Channeled Scaffolds. *Tissue Engineering*, **2006**, 060913044658032 | | |
| 12 | A novel composite scaffold for cardiac tissue engineering. *In Vitro Cellular and Developmental Biology - Animal*, **2005**, 41, 188-96 | 2.6 | 106 |
| 11 | 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, H1278-89 | 5.2 | 199 |
| 10 | Mechanical properties and remodeling of hybrid cardiac constructs made from heart cells, fibrin, and biodegradable, elastomeric knitted fabric. *Tissue Engineering*, **2005**, 11, 1122-32 | | 111 |

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|---|---|---|---|
| 9 | Functional Tissue Engineering of Cartilage and Myocardium **2005**, 501-530 | | 2 |
| 8 | Tissue Engineering of Cartilage and Myocardium **2005**, 99-133 | | 3 |
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