Eduardo Marbn

List of Publications by Year in Descending Order

188 papers	17,728 citations	66 h-index	132 g-index
199 ext. papers	20,158 ext. citations	10.7 avg, IF	7 L-index

#	Paper	IF	Citations
188	Biological substrate modification suppresses ventricular arrhythmias in a porcine model of chronic ischaemic cardiomyopathy.. *European Heart Journal*, **2022**,	9.5	1
187	Biodistribution of unmodified cardiosphere-derived cell extracellular vesicles using single RNA tracing.. *Journal of Extracellular Vesicles*, **2022**, 11, e12178	16.4	2
186	Repeated intravenous cardiosphere-derived cell therapy in late-stage Duchenne muscular dystrophy (HOPE-2): a multicentre, randomised, double-blind, placebo-controlled, phase 2 trial.. *Lancet, The*, **2022**, 399, 1049-1058	40	6
185	Novel Cell-Based Therapeutics for Diseases of the Heart and Skeletal Muscle. *Physiology in Health and Disease*, **2022**, 227-249	0.2	
184	Extracellular Vesicles Secreted by TDO2-Augmented Fibroblasts Regulate Pro-inflammatory Response in Macrophages. *Frontiers in Cell and Developmental Biology*, **2021**, 9, 733354	5.7	2
183	Basic and Translational Research in Cardiac Repair and Regeneration: JACC´State-of-the-Art´Review. *Journal of the American College of Cardiology*, **2021**, 78, 2092-2105	15.1	3
182	Myofilament Phosphorylation in Stem Cell Treated Diastolic Heart Failure. *Circulation Research*, **2021**, 129, 1125-1140	15.7	2
181	Mechanistic and therapeutic distinctions between cardiosphere-derived cell and mesenchymal stem cell extracellular vesicle non-coding RNA. *Scientific Reports*, **2021**, 11, 8666	4.9	1
180	Regulatory T cell activation, proliferation, and reprogramming induced by extracellular vesicles. *Journal of Heart and Lung Transplantation*, **2021**, 40, 1387-1395	5.8	1
179	Pathogenesis of arrhythmogenic cardiomyopathy: role of inflammation. *Basic Research in Cardiology*, **2021**, 116, 39	11.8	2
178	Exosomally derived Y RNA fragment alleviates hypertrophic cardiomyopathy in transgenic mice. *Molecular Therapy - Nucleic Acids*, **2021**, 24, 951-960	10.7	2
177	Cardiosphere-derived cells, with and without a biological scaffold, stimulate myogenesis and recovery of muscle function in mice with volumetric muscle loss. *Biomaterials*, **2021**, 274, 120852	15.6	4
176	Delayed repolarization and ventricular tachycardia in patients with heart failure and preserved ejection fraction. *PLoS ONE*, **2021**, 16, e0254641	3.7	3
175	Effect of cardiosphere-derived cells on segmental myocardial function after myocardial infarction: ALLSTAR randomised clinical trial. *Open Heart*, **2021**, 8,	3	5
174	Small molecule inhibitors and culture conditions enhance therapeutic cell and EV potency via activation of beta-catenin and suppression of THY1. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2021**, 33, 102347	6	1
173	Electrocardiogram-less, free-breathing myocardial extracellular volume fraction mapping in small animals at high heart rates using motion-resolved cardiovascular magnetic reesonance multitasking: a feasibility study in a heart failure with preserved ejection fraction rat model. *Journal of Cardiovascular Magnetic Resonance*, **2021**, 23, 8	6.9	1
172	Extracellular vesicles from immortalized cardiosphere-derived cells attenuate arrhythmogenic cardiomyopathy in desmoglein-2 mutant mice. *European Heart Journal*, **2021**, 42, 3558-3571	9.5	8

171	Pituitary somatotroph adenoma-derived exosomes: characterization of nonhormonal actions. *Journal of Clinical Endocrinology and Metabolism*, **2021**,	5.6	1
170	A phoenix rises from the ashes of cardiac cell therapy. *Nature Reviews Cardiology*, **2021**, 18, 743-744	14.8	1
169	Engineered Fibroblast Extracellular Vesicles Attenuate Pulmonary Inflammation and Fibrosis in Bleomycin-Induced Lung Injury. *Frontiers in Cell and Developmental Biology*, **2021**, 9, 733158	5.7	4
168	Casein-enhanced uptake and disease-modifying bioactivity of ingested extracellular vesicles. *Journal of Extracellular Vesicles*, **2021**, 10, e12045	16.4	4
167	Allogeneic cardiosphere-derived cells (CAP-1002) in critically ill COVID-19 patients: compassionate-use case series. *Basic Research in Cardiology*, **2020**, 115, 36	11.8	33
166	Extracellular Vesicles as Therapeutic Agents for Cardiac Fibrosis. *Frontiers in Physiology*, **2020**, 11, 479	4.6	12
165	Quantitative Hybrid Cardiac [F]FDG-PET-MRI Images for Assessment of Cardiac Repair by Preconditioned Cardiosphere-Derived Cells. *Molecular Therapy - Methods and Clinical Development*, **2020**, 18, 354-366	6.4	5
164	Mechanisms of atrial fibrillation in aged rats with heart failure with preserved ejection fraction. *Heart Rhythm*, **2020**, 17, 1025-1033	6.7	21
163	Cardiac arrhythmias in hospitalized patients with COVID-19: A prospective observational study in the western United States. *PLoS ONE*, **2020**, 15, e0244533	3.7	17
162	Heart-derived cells for therapeutics **2020**, 217-243		
161	Immunological mechanisms of exosome mediated therapeutic bioactivity in Duchenne muscular dystrophy. *FASEB Journal*, **2020**, 34, 1-1	0.9	
160	Allogeneic cardiosphere-derived cells for the treatment of heart failure with reduced ejection fraction: the Dilated cardiomYopathy iNtervention with Allogeneic MyocardIally-regenerative Cells (DYNAMIC) trial. *EuroIntervention*, **2020**, 16, e293-e300	3.1	22
159	Pre-existing traits associated with Covid-19 illness severity. *PLoS ONE*, **2020**, 15, e0236240	3.7	69
158	Intracoronary ALLogeneic heart STem cells to Achieve myocardial Regeneration (ALLSTAR): a randomized, placebo-controlled, double-blinded trial. *European Heart Journal*, **2020**, 41, 3451-3458	9.5	35
157	Distinct features of calcium handling and β-adrenergic sensitivity in heart failure with preserved versus reduced ejection fraction. *Journal of Physiology*, **2020**, 598, 5091-5108	3.9	15
156	Direct and Indirect Suppression of Scn5a Gene Expression Mediates Cardiac Na Channel Inhibition by Wnt Signalling. *Canadian Journal of Cardiology*, **2020**, 36, 564-576	3.8	6
155	COVID-19 and the Heart. *Circulation Research*, **2020**, 126, 1443-1455	15.7	395
154	Pre-existing traits associated with Covid-19 illness severity **2020**, 15, e0236240		

153	Pre-existing traits associated with Covid-19 illness severity **2020**, 15, e0236240		
152	Pre-existing traits associated with Covid-19 illness severity **2020**, 15, e0236240		
151	Pre-existing traits associated with Covid-19 illness severity **2020**, 15, e0236240		
150	Cardiac arrhythmias in hospitalized patients with COVID-19: A prospective observational study in the western United States **2020**, 15, e0244533		
149	Cardiac arrhythmias in hospitalized patients with COVID-19: A prospective observational study in the western United States **2020**, 15, e0244533		
148	Cardiac arrhythmias in hospitalized patients with COVID-19: A prospective observational study in the western United States **2020**, 15, e0244533		
147	Cardiac arrhythmias in hospitalized patients with COVID-19: A prospective observational study in the western United States **2020**, 15, e0244533		
146	Augmenting canonical Wnt signalling in therapeutically inert cells converts them into therapeutically potent exosome factories. *Nature Biomedical Engineering*, **2019**, 3, 695-705	19	37
145	Cardiac and skeletal muscle effects in the randomized HOPE-Duchenne trial. *Neurology*, **2019**, 92, e866-e878	8.3	43
144	Repeated cell transplantation and adjunct renal denervation in ischemic heart failure: exploring modalities for improving cell therapy efficacy. *Basic Research in Cardiology*, **2019**, 114, 9	11.8	5
143	Antegrade Conduction Rescues Right Ventricular Pacing-Induced Cardiomyopathy in Complete Heart Block. *Journal of the American College of Cardiology*, **2019**, 73, 1673-1687	15.1	7
142	Mechanism of Enhanced MerTK-Dependent Macrophage Efferocytosis by Extracellular Vesicles. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2019**, 39, 2082-2096	9.4	22
141	Disease-modifying bioactivity of intravenous cardiosphere-derived cells and exosomes in mdx mice. *JCI Insight*, **2019**, 4,	9.9	29
140	Cardiosphere-Derived Cell Exosomes Modulate mdx Macrophage Phenotype and Alter Their Secretome. *FASEB Journal*, **2019**, 33, lb611	0.9	1
139	The Secret Life of Exosomes: What Bees Can Teach Us About Next-Generation Therapeutics. *Journal of the American College of Cardiology*, **2018**, 71, 193-200	15.1	59
138	Newt cells secrete extracellular vesicles with therapeutic bioactivity in mammalian cardiomyocytes. *Journal of Extracellular Vesicles*, **2018**, 7, 1456888	16.4	19
137	Diffusion Tensor Cardiac Magnetic Resonance Reveals Exosomes From Cardiosphere-Derived Cells Preserve Myocardial Fiber Architecture After Myocardial Infarction. *JACC Basic To Translational Science*, **2018**, 3, 97-109	8.7	19
136	Exosome-Mediated Benefits of Cell Therapy in Mouse and Human Models of Duchenne Muscular Dystrophy. *Stem Cell Reports*, **2018**, 10, 942-955	8	65

135	Ventricular Arrhythmias Underlie Sudden Death in Rats With Heart Failure and Preserved Ejection Fraction. *Circulation: Arrhythmia and Electrophysiology*, **2018**, 11, e006452	6.4	25
134	Angiotensin II-Induced End-Organ Damage in Mice Is Attenuated by Human Exosomes and by an Exosomal Y RNA Fragment. *Hypertension*, **2018**, 72, 370-380	8.5	26
133	A mechanistic roadmap for the clinical application of cardiac cell therapies. *Nature Biomedical Engineering*, **2018**, 2, 353-361	19	48
132	Intravenous xenogeneic human cardiosphere-derived cell extracellular vesicles (exosomes) improves behavioral function in small-clot embolized rabbits. *Experimental Neurology*, **2018**, 307, 109-117	5.7	21
131	Reverse electrical remodeling in rats with heart failure and preserved ejection fraction. *JCI Insight*, **2018**, 3,	9.9	12
130	Therapeutic Exosome Preparations: Relative Bioactivities of Intra- and Extra-Vesicular Components. *FASEB Journal*, **2018**, 32, 840.8	0.9	
129	Macrophages are Required for Recovery from Physiological Muscle Stress in the mdx Mouse Model of Muscular Dystrophy. *FASEB Journal*, **2018**, 32, lb438	0.9	1
128	Next-generation pacemakers: from small devices to biological pacemakers. *Nature Reviews Cardiology*, **2018**, 15, 139-150	14.8	73
127	Letter by Ibrahim et al Regarding Article, "Lack of Cardiac Improvement After Cardiosphere-Derived Cell Transplantation in Aging Mouse Hearts". *Circulation Research*, **2018**, 123, e65-e66	15.7	2
126	Targeting extracellular vesicles to injured tissue using membrane cloaking and surface display. *Journal of Nanobiotechnology*, **2018**, 16, 61	9.4	105
125	Y RNA fragment in extracellular vesicles confers cardioprotection via modulation of IL-10 expression and secretion. *EMBO Molecular Medicine*, **2017**, 9, 337-352	12	125
124	Exosomal MicroRNA Transfer Into Macrophages Mediates Cellular Postconditioning. *Circulation*, **2017**, 136, 200-214	16.7	176
123	Delayed Repolarization Underlies Ventricular Arrhythmias in Rats With Heart Failure and Preserved Ejection Fraction. *Circulation*, **2017**, 136, 2037-2050	16.7	43
122	Optimized CEST cardiovascular magnetic resonance for assessment of metabolic activity in the heart. *Journal of Cardiovascular Magnetic Resonance*, **2017**, 19, 95	6.9	16
121	Roles of exosomes in cardioprotection. *European Heart Journal*, **2017**, 38, 1372-1379	9.5	144
120	A comprehensive method for identification of suitable reference genes in extracellular vesicles. *Journal of Extracellular Vesicles*, **2017**, 6, 1347019	16.4	34
119	Cardiac and systemic rejuvenation after cardiosphere-derived cell therapy in senescent rats. *European Heart Journal*, **2017**, 38, 2957-2967	9.5	40
118	Is Cardioprotection Dead?. *Circulation*, **2017**, 136, 98-109	16.7	40

117	Cardiomyocyte Regeneration: A Consensus Statement. *Circulation*, **2017**, 136, 680-686	16.7	287
116	Therapeutic benefits of intravenous cardiosphere-derived cell therapy in rats with pulmonary hypertension. *PLoS ONE*, **2017**, 12, e0183557	3.7	12
115	Harnessing the heart's resistance to malignant tumors: cardiac-derived extracellular vesicles decrease fibrosarcoma growth and leukemia-related mortality in rodents. *Oncotarget*, **2017**, 8, 99624-99636	3.3	9
114	Exosomes secreted by cardiosphere-derived cells reduce scarring, attenuate adverse remodelling, and improve function in acute and chronic porcine myocardial infarction. *European Heart Journal*, **2017**, 38, 201-211	9.5	282
113	Cardiosphere-derived cells reverse heart failure with preserved ejection fraction (HFpEF) in rats by decreasing fibrosis and inflammation. *JACC Basic To Translational Science*, **2016**, 1, 14-28	8.7	66
112	Durable Benefits of Cellular Postconditioning: Long-Term Effects of Allogeneic Cardiosphere-Derived Cells Infused After Reperfusion in Pigs with Acute Myocardial Infarction. *Journal of the American Heart Association*, **2016**, 5,	6	25
111	Exosomes: Fundamental Biology and Roles in Cardiovascular Physiology. *Annual Review of Physiology*, **2016**, 78, 67-83	23.1	170
110	Widespread Myocardial Delivery of Heart-Derived Stem Cells by Nonocclusive Triple-Vessel Intracoronary Infusion in Porcine Ischemic Cardiomyopathy: Superior Attenuation of Adverse Remodeling Documented by Magnetic Resonance Imaging and Histology. *PLoS ONE*, **2016**, 11, e0144523	3.7	22
109	Persistent Microvascular Obstruction After Myocardial Infarction Culminates in the Confluence of Ferric Iron Oxide Crystals, Proinflammatory Burden, and Adverse Remodeling. *Circulation: Cardiovascular Imaging*, **2016**, 9,	3.9	19
108	Repeated transplantation of allogeneic cardiosphere-derived cells boosts therapeutic benefits without immune sensitization in a rat model of myocardial infarction. *Journal of Heart and Lung Transplantation*, **2016**, 35, 1348-1357	5.8	27
107	Cellular postconditioning: allogeneic cardiosphere-derived cells reduce infarct size and attenuate microvascular obstruction when administered after reperfusion in pigs with acute myocardial infarction. *Circulation: Heart Failure*, **2015**, 8, 322-32	7.6	65
106	Fibroblasts Rendered Antifibrotic, Antiapoptotic, and Angiogenic by Priming With Cardiosphere-Derived Extracellular Membrane Vesicles. *Journal of the American College of Cardiology*, **2015**, 66, 599-611	15.1	93
105	Direct Reprogramming: Bypassing Stem Cells for Therapeutics. *JAMA - Journal of the American Medical Association*, **2015**, 314, 19-20	27.4	6
104	Meta-Analysis of Cell-based CaRdiac stUdiEs (ACCRUE) in patients with acute myocardial infarction based on individual patient data. *Circulation Research*, **2015**, 116, 1346-60	15.7	213
103	A corrole nanobiologic elicits tissue-activated MRI contrast enhancement and tumor-targeted toxicity. *Journal of Controlled Release*, **2015**, 217, 92-101	11.7	20
102	Therapeutic efficacy of cardiosphere-derived cells in a transgenic mouse model of non-ischaemic dilated cardiomyopathy. *European Heart Journal*, **2015**, 36, 751-62	9.5	64
101	Recreación del nódulo sinusal mediante reprogramación somática: ¿un sueño hecho realidad?. *Revista Espanola De Cardiologia*, **2015**, 68, 743-745	1.5	2
100	Epigenomic Reprogramming of Adult Cardiomyocyte-Derived Cardiac Progenitor Cells. *Scientific Reports*, **2015**, 5, 17686	4.9	22

99	Wnt signalling suppresses voltage-dependent Na+ channel expression in postnatal rat cardiomyocytes. *Journal of Physiology*, **2015**, 593, 1147-57	3.9	25
98	Intracoronary delivery of self-assembling heart-derived microtissues (cardiospheres) for prevention of adverse remodeling in a pig model of convalescent myocardial infarction. *Circulation: Cardiovascular Interventions*, **2015**, 8,	6	21
97	Cardiac regeneration validated. *Nature Biotechnology*, **2015**, 33, 587	44.5	9
96	Letter by Gallet and Marbán Regarding Article, "Intracoronary Injection of Large Stem Cells: Size Matters". *Circulation: Cardiovascular Interventions*, **2015**, 8, e002843	6	1
95	Macrophages mediate cardioprotective cellular postconditioning in acute myocardial infarction. *Journal of Clinical Investigation*, **2015**, 125, 3147-62	15.9	149
94	c-kit+ cells minimally contribute cardiomyocytes to the heart. *Nature*, **2014**, 509, 337-41	50.4	603
93	Exosomes as critical agents of cardiac regeneration triggered by cell therapy. *Stem Cell Reports*, **2014**, 2, 606-19	8	548
92	Moving beyond surrogate endpoints in cell therapy trials for heart disease. *Stem Cells Translational Medicine*, **2014**, 3, 2-6	6.9	15
91	Translating stem cell research to cardiac disease therapies: pitfalls and prospects for improvement. *Journal of the American College of Cardiology*, **2014**, 64, 922-37	15.1	70
90	Determination of location, size, and transmurality of chronic myocardial infarction without exogenous contrast media by using cardiac magnetic resonance imaging at 3 T. *Circulation: Cardiovascular Imaging*, **2014**, 7, 471-81	3.9	41
89	Magnetic antibody-linked nanomatchmakers for therapeutic cell targeting. *Nature Communications*, **2014**, 5, 4880	17.4	93
88	Cardiac BIN1 folds T-tubule membrane, controlling ion flux and limiting arrhythmia. *Nature Medicine*, **2014**, 20, 624-32	50.5	150
87	Breakthroughs in cell therapy for heart disease: focus on cardiosphere-derived cells. *Mayo Clinic Proceedings*, **2014**, 89, 850-8	6.4	39
86	Importance of cell-cell contact in the therapeutic benefits of cardiosphere-derived cells. *Stem Cells*, **2014**, 32, 2397-406	5.8	50
85	Allogeneic cardiospheres delivered via percutaneous transendocardial injection increase viable myocardium, decrease scar size, and attenuate cardiac dilatation in porcine ischemic cardiomyopathy. *PLoS ONE*, **2014**, 9, e113805	3.7	40
84	Engineered electrical conduction tract restores conduction in complete heart block: from in vitro to in vivo proof of concept. *Journal of the American College of Cardiology*, **2014**, 64, 2575-2585	15.1	17
83	Stimulation of endogenous cardioblasts by exogenous cell therapy after myocardial infarction. *EMBO Molecular Medicine*, **2014**, 6, 760-77	12	79
82	Relative roles of CD90 and c-kit to the regenerative efficacy of cardiosphere-derived cells in humans and in a mouse model of myocardial infarction. *Journal of the American Heart Association*, **2014**, 3, e001260	6	90

81	Biological pacemaker created by minimally invasive somatic reprogramming in pigs with complete heart block. *Science Translational Medicine*, **2014**, 6, 245ra94	17.5	119
80	Cardiospheres reverse adverse remodeling in chronic rat myocardial infarction: roles of soluble endoglin and Tgf-β signaling. *Basic Research in Cardiology*, **2014**, 109, 443	11.8	43
79	Letter by Makkar et al regarding article, "Cell therapy for heart failure: a comprehensive overview of experimental and clinical studies, current challenges, and future directions". *Circulation Research* , **2014**, 115, e32	15.7	1
78	Intracoronary cardiosphere-derived cells after myocardial infarction: evidence of therapeutic regeneration in the final 1-year results of the CADUCEUS trial (CArdiosphere-Derived aUtologous stem CElls to reverse ventricUlar dySfunction). *Journal of the American College of Cardiology*, **2014**, 63, 110-22	15.1	379
77	Human cardiosphere-derived cells from advanced heart failure patients exhibit augmented functional potency in myocardial repair. *JACC: Heart Failure*, **2014**, 2, 49-61	7.9	88
76	Angiogenesis, cardiomyocyte proliferation and anti-fibrotic effects underlie structural preservation post-infarction by intramyocardially-injected cardiospheres. *PLoS ONE*, **2014**, 9, e88590	3.7	47
75	Cardiomyocyte proliferation and progenitor cell recruitment underlie therapeutic regeneration after myocardial infarction in the adult mouse heart. *EMBO Molecular Medicine*, **2013**, 5, 191-209	12	221
74	Direct conversion of quiescent cardiomyocytes to pacemaker cells by expression of Tbx18. *Nature Biotechnology*, **2013**, 31, 54-62	44.5	216
73	Allogeneic cardiospheres safely boost cardiac function and attenuate adverse remodeling after myocardial infarction in immunologically mismatched rat strains. *Journal of the American College of Cardiology*, **2013**, 61, 1108-19	15.1	70
72	Intrinsic cardiac origin of human cardiosphere-derived cells. *European Heart Journal*, **2013**, 34, 68-75	9.5	49
71	Validation of contrast-enhanced magnetic resonance imaging to monitor regenerative efficacy after cell therapy in a porcine model of convalescent myocardial infarction. *Circulation*, **2013**, 128, 2764-75	16.7	86
70	Enhancing retention and efficacy of cardiosphere-derived cells administered after myocardial infarction using a hyaluronan-gelatin hydrogel. *Biomatter*, **2013**, 3,		39
69	Cardiac Cell Therapy for Ischemic Heart Disease **2013**, 229-257		
68	Transplantation of platelet gel spiked with cardiosphere-derived cells boosts structural and functional benefits relative to gel transplantation alone in rats with myocardial infarction. *Biomaterials*, **2012**, 33, 2872-9	15.6	37
67	Functional performance of human cardiosphere-derived cells delivered in an in situ polymerizable hyaluronan-gelatin hydrogel. *Biomaterials*, **2012**, 33, 5317-24	15.6	86
66	Intracoronary cardiosphere-derived cells for heart regeneration after myocardial infarction (CADUCEUS): a prospective, randomised phase 1 trial. *Lancet, The*, **2012**, 379, 895-904	40	1108
65	Cardiosphere-derived cells for heart regeneration Authors reply. *Lancet, The*, **2012**, 379, 2426-2427	40	3
64	Dose-dependent functional benefit of human cardiosphere transplantation in mice with acute myocardial infarction. *Journal of Cellular and Molecular Medicine*, **2012**, 16, 2112-6	5.6	43

63	Brief report: Mechanism of extravasation of infused stem cells. *Stem Cells*, **2012**, 30, 2835-42	5.8	24
62	Direct comparison of different stem cell types and subpopulations reveals superior paracrine potency and myocardial repair efficacy with cardiosphere-derived cells. *Journal of the American College of Cardiology*, **2012**, 59, 942-53	15.1	370
61	Heart to heart: cardiospheres for myocardial regeneration. *Heart Rhythm*, **2012**, 9, 1727-31	6.7	27
60	Cardiospheres and cardiosphere-derived cells as therapeutic agents following myocardial infarction. *Expert Review of Cardiovascular Therapy*, **2012**, 10, 1185-94	2.5	36
59	Biological pacemaker created by percutaneous gene delivery via venous catheters in a porcine model of complete heart block. *Heart Rhythm*, **2012**, 9, 1310-8	6.7	35
58	Functional impairment of human resident cardiac stem cells by the cardiotoxic antineoplastic agent trastuzumab. *Stem Cells Translational Medicine*, **2012**, 1, 289-97	6.9	31
57	Safety and efficacy of allogeneic cell therapy in infarcted rats transplanted with mismatched cardiosphere-derived cells. *Circulation*, **2012**, 125, 100-12	16.7	218
56	Magnetic enhancement of cell retention, engraftment, and functional benefit after intracoronary delivery of cardiac-derived stem cells in a rat model of ischemia/reperfusion. *Cell Transplantation*, **2012**, 21, 1121-35	4	74
55	Intramyocardial injection of autologous cardiospheres or cardiosphere-derived cells preserves function and minimizes adverse ventricular remodeling in pigs with heart failure post-myocardial infarction. *Journal of the American College of Cardiology*, **2011**, 57, 455-65	15.1	187
54	Expansion of human cardiac stem cells in physiological oxygen improves cell production efficiency and potency for myocardial repair. *Cardiovascular Research*, **2011**, 89, 157-65	9.9	68
53	Cardiac cell therapy: where we've been, where we are, and where we should be headed. *British Medical Bulletin*, **2011**, 98, 161-85	5.4	150
52	Transcriptional suppression of connexin43 by TBX18 undermines cell-cell electrical coupling in postnatal cardiomyocytes. *Journal of Biological Chemistry*, **2011**, 286, 14073-9	5.4	47
51	Biological therapies for cardiac arrhythmias: can genes and cells replace drugs and devices?. *Circulation Research*, **2010**, 106, 674-85	15.7	78
50	Heart to heart: The elusive mechanism of cell therapy. *Circulation*, **2010**, 121, 1981-4	16.7	20
49	Relative roles of direct regeneration versus paracrine effects of human cardiosphere-derived cells transplanted into infarcted mice. *Circulation Research*, **2010**, 106, 971-80	15.7	509
48	Assessment and optimization of cell engraftment after transplantation into the heart. *Circulation Research*, **2010**, 106, 479-94	15.7	251
47	Magnetic targeting enhances engraftment and functional benefit of iron-labeled cardiosphere-derived cells in myocardial infarction. *Circulation Research*, **2010**, 106, 1570-81	15.7	208
46	Isolation and expansion of functionally-competent cardiac progenitor cells directly from heart biopsies. *Journal of Molecular and Cellular Cardiology*, **2010**, 49, 312-21	5.8	122

45	VAMP-1, VAMP-2, and syntaxin-4 regulate ANP release from cardiac myocytes. *Journal of Molecular and Cellular Cardiology*, **2010**, 49, 791-800	5.8	20
44	Identification and functionality of proteomes secreted by rat cardiac stem cells and neonatal cardiomyocytes. *Proteomics*, **2010**, 10, 245-53	4.8	84
43	Human cardiospheres are a source of stem cells with cardiomyogenic potential. *Stem Cells*, **2010**, 28, 903-4	5.8	59
42	Physiological levels of reactive oxygen species are required to maintain genomic stability in stem cells. *Stem Cells*, **2010**, 28, 1178-85	5.8	116
41	Cardiospheres recapitulate a niche-like microenvironment rich in stemness and cell-matrix interactions, rationalizing their enhanced functional potency for myocardial repair. *Stem Cells*, **2010** , 28, 2088-98	5.8	208
40	Dedifferentiation and proliferation of mammalian cardiomyocytes. *PLoS ONE*, **2010**, 5, e12559	3.7	141
39	Tissue engineered cardiac stem cell grafts for repairing heart with myocardial infarction. *FASEB Journal*, **2010**, 24, 599.11	0.9	
38	Validation of the cardiosphere method to culture cardiac progenitor cells from myocardial tissue. *PLoS ONE*, **2009**, 4, e7195	3.7	229
37	Engraftment, differentiation, and functional benefits of autologous cardiosphere-derived cells in porcine ischemic cardiomyopathy. *Circulation*, **2009**, 120, 1075-83, 7 p following 1083	16.7	333
36	IK1 heterogeneity affects genesis and stability of spiral waves in cardiac myocyte monolayers. *Circulation Research*, **2009**, 104, 355-64	15.7	42
35	Noninvasive quantification and optimization of acute cell retention by in vivo positron emission tomography after intramyocardial cardiac-derived stem cell delivery. *Journal of the American College of Cardiology*, **2009**, 54, 1619-26	15.1	218
34	Stem cells in the heart: what's the buzz all about? Part 2: Arrhythmic risks and clinical studies. *Heart Rhythm*, **2008**, 5, 880-7	6.7	46
33	Is Kir6.1 a subunit of mitoK(ATP)?. *Biochemical and Biophysical Research Communications*, **2008**, 366, 649-56	3.4	55
32	Lentiviral vectors bearing the cardiac promoter of the Na+-Ca2+ exchanger report cardiogenic differentiation in stem cells. *Molecular Therapy*, **2008**, 16, 957-64	11.7	37
31	Biological pacemakers as a therapy for cardiac arrhythmias. *Current Opinion in Cardiology*, **2008**, 23, 46-54	1.1	19
30	Creation of a biological pacemaker by gene- or cell-based approaches. *Medical and Biological Engineering and Computing*, **2007**, 45, 133-44	3.1	18
29	Creation of a biological pacemaker by cell fusion. *Circulation Research*, **2007**, 100, 1112-5	15.7	61
28	Infarct tissue heterogeneity by magnetic resonance imaging identifies enhanced cardiac arrhythmia susceptibility in patients with left ventricular dysfunction. *Circulation*, **2007**, 115, 2006-14	16.7	625

27	Regenerative potential of cardiosphere-derived cells expanded from percutaneous endomyocardial biopsy specimens. *Circulation*, **2007**, 115, 896-908	16.7	967
26	Gene transfer of a synthetic pacemaker channel into the heart: a novel strategy for biological pacing. *Circulation*, **2006**, 114, 1682-6	16.7	48
25	Proarrhythmic potential of mesenchymal stem cell transplantation revealed in an in vitro coculture model. *Circulation*, **2006**, 113, 1832-41	16.7	186
24	Functional integration of electrically active cardiac derivatives from genetically engineered human embryonic stem cells with quiescent recipient ventricular cardiomyocytes: insights into the development of cell-based pacemakers. *Circulation*, **2005**, 111, 11-20	16.7	416
23	Non-equilibrium behavior of HCN channels: insights into the role of HCN channels in native and engineered pacemakers. *Cardiovascular Research*, **2005**, 67, 263-73	9.9	51
22	Antiarrhythmic engineering of skeletal myoblasts for cardiac transplantation. *Circulation Research*, **2005**, 97, 159-67	15.7	245
21	Cardiac channelopathies. *Nature*, **2002**, 415, 213-8	50.4	287
20	Biological pacemaker created by gene transfer. *Nature*, **2002**, 419, 132-3	50.4	351
19	Ectopic expression of KCNE3 accelerates cardiac repolarization and abbreviates the QT interval. *Journal of Clinical Investigation*, **2002**, 109, 1083-1090	15.9	45
18	Endogenous nitric oxide mechanisms mediate the stretch dependence of Ca2+ release in cardiomyocytes. *Nature Cell Biology*, **2001**, 3, 867-73	23.4	270
17	Pharmacological Comparison of Native Mitochondrial KATP Channels with Molecularly Defined Surface KATP Channels. *Molecular Pharmacology*, **2001**, 59, 225-230	4.3	130
16	Focal modification of electrical conduction in the heart by viral gene transfer. *Nature Medicine*, **2000**, 6, 1395-8	50.5	171
15	Lidocaine induces a slow inactivated state in rat skeletal muscle sodium channels. *Journal of Physiology*, **2000**, 524 Pt 1, 37-49	3.9	54
14	Frequency-dependent changes in calcium cycling and contractile activation in SERCA2a transgenic mice. *Basic Research in Cardiology*, **2000**, 95, 144-51	11.8	15
13	Molecular composition of mitochondrial ATP-sensitive potassium channels probed by viral Kir gene transfer. *Journal of Molecular and Cellular Cardiology*, **2000**, 32, 1923-30	5.8	79
12	Functional expression of exogenous proteins in mammalian sensory hair cells infected with adenoviral vectors. *Journal of Neurophysiology*, **1999**, 81, 1881-8	3.2	73
11	Cellular basis of ventricular arrhythmias and abnormal automaticity in heart failure. *American Journal of Physiology - Heart and Circulatory Physiology*, **1999**, 277, H80-91	5.2	90
10	Mitochondrial ATP-dependent potassium channels. Viable candidate effectors of ischemic preconditioning. *Annals of the New York Academy of Sciences*, **1999**, 874, 27-37	6.5	121

9	Virus-mediated modification of cellular excitability. *Annals of the New York Academy of Sciences*, **1999**, 868, 418-22	6.5	8
8	Calcium cycling and contractile activation in intact mouse cardiac muscle. *Journal of Physiology*, **1998**, 507 (Pt 1), 175-84	3.9	100
7	Mechanistic link between lidocaine block and inactivation probed by outer pore mutations in the rat micro1 skeletal muscle sodium channel. *Journal of Physiology*, **1998**, 512 (Pt 3), 693-705	3.9	54
6	Phenotypic characterization of a novel long-QT syndrome mutation (R1623Q) in the cardiac sodium channel. *Circulation*, **1998**, 97, 640-4	16.7	122
5	Mitochondrial ATP-dependent potassium channels: novel effectors of cardioprotection?. *Circulation* , **1998**, 97, 2463-9	16.7	708
4	Mechanism for the cardioprotective effects of the calcium channel blocker clentiazem during ischemia and reperfusion. *Japanese Circulation Journal*, **1998**, 62, 611-6		4
3	Role of Troponin I Proteolysis in the Pathogenesis of Stunned Myocardium. *Circulation Research*, **1997**, 80, 393-399	15.7	273
2	Disruption of Intracellular Ca2+Homeostasis in Hearts Reperfused after Prolonged Episodes of Ischemia a. *Annals of the New York Academy of Sciences*, **1994**, 723, 38-50	6.5	18
1	Reversal of cardiac and skeletal manifestations of Duchenne muscular dystrophy by cardiosphere-derived cells and their exosomes in mdx dystrophic mice and in human Duchenne cardiomyocytes		5