Carolyn A Carr

List of Publications by Year
in descending order

62 papers	2,712 citations	201385 27 h-index	189595 50 g-index
64 all docs	64 docs citations	64 times ranked	4614 citing authors

#	Article	IF	Citations
1	Cardiac regeneration following myocardial infarction: the need for regeneration and a review of cardiac stromal cell populations used for transplantation. Biochemical Society Transactions, 2022, , .	1.6	8
2	Alkaline nucleoplasm facilitates contractile gene expression in the mammalian heart. Basic Research in Cardiology, 2022, 117, 17.	2.5	3
3	Acute intermittent hypoxia drives hepatic de novo lipogenesis in humans and rodents. Metabolism Open, 2022, 14, 100177.	1.4	6
4	Acidic environments trigger intracellular H+-sensing FAK proteins to re-balance sarcolemmal acidâ€“base transporters and auto-regulate cardiomyocyte pH. Cardiovascular Research, 2022, 118, 2946-2959.	1.8	2
5	Mechanical and Degradation Properties of Hybrid Scaffolds for Tissue Engineered Heart Valve (TEHV). Journal of Functional Biomaterials, 2021, 12, 20.	1.8	13
6	Physiological and pharmacological stimulation for in vitro maturation of substrate metabolism in human induced pluripotent stem cell-derived cardiomyocytes. Scientific Reports, 2021, 11, 7802.	1.6	21
7	Metabolic maturation of differentiating cardiosphere-derived cells. Stem Cell Research, 2021, 54, 102422.	0.3	5
8	Activation of HIF1Î± Rescues the Hypoxic Response and Reverses Metabolic Dysfunction in the Diabetic Heart. Diabetes, 2021, 70, 2518-2531.	0.3	18
9	Trilayer scaffold with cardiosphereâ€derived cells for heart valve tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 729-737.	1.6	7
10	Investigation of the Cellular Pharmacological Mechanism and Clinical Evidence of the Multi-Herbal Antiarrhythmic Chinese Medicine Xin Su Ning. Frontiers in Pharmacology, 2020, 11, 600.	1.6	4
11	Context-dependent regulation of endothelial cell metabolism: differential effects of the PPARÎ²/Î´ agonist GW0742 and VEGF-A. Scientific Reports, 2020, 10, 7849.	1.6	14
12	A Network Pharmacology Study of the Multi-Targeting Profile of an Antiarrhythmic Chinese Medicine Xin Su Ning. Frontiers in Pharmacology, 2019, 10, 1138.	1.6	16
13	Intracellular iron deficiency in pulmonary arterial smooth muscle cells induces pulmonary arterial hypertension in mice. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13122-13130.	3.3	63
14	Metabolic flux analyses to assess the differentiation of adult cardiac progenitors after fatty acid supplementation. Stem Cell Research, 2019, 38, 101458.	0.3	13
15	Î²-Adrenergic Receptor Stimulation and Alternans in the Border Zone of a Healed Infarct: An ex vivo Study and Computational Investigation of Arrhythmogenesis. Frontiers in Physiology, 2019, 10, 350.	1.3	24
16	Collagen type I and hyaluronic acid based hybrid scaffolds for heart valve tissue engineering. Biopolymers, 2019, 110, e23278.	1.2	19
17	Improved cellular uptake of perfluorocarbon nanoparticles for in vivo murine cardiac 19F MRS/MRI and temporal tracking of progenitor cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 18, 391-401.	1.7	9
18	Noninvasive Immunometabolic Cardiac Inflammation Imaging Using Hyperpolarized Magnetic Resonance. Circulation Research, 2018, 122, 1084-1093.	2.0	64

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19	Hyperpolarized [1,4-13C2]Fumarate Enables Magnetic Resonance-Based Imaging of Myocardial Necrosis. JACC: Cardiovascular Imaging, 2018, 11, 1594-1606.	2.3	46
20	P22â€…Cardiac energy metabolism increases with ketone oxidation. , 2018, , .		0
21	The cardiac lymphatic system stimulates resolution of inflammation following myocardial infarction. Journal of Clinical Investigation, 2018, 128, 3402-3412.	3.9	180
22	Changing Metabolism in Differentiating Cardiac Progenitor Cellsâ€"Can Stem Cells Become Metabolically Flexible Cardiomyocytes?. Frontiers in Cardiovascular Medicine, 2018, 5, 119.	1.1	34
23	In Vivo Tracking and ¹H/¹⁹F Magnetic Resonance Imaging of Biodegradable Polyhydroxyalkanoate/Polycaprolactone Blend Scaffolds Seeded with Labeled Cardiac Stem Cells. ACS Applied Materials & Interfaces, 2018, 10, 25056-25068.	4.0	44
24	3D functional scaffolds for cardiovascular tissue engineering. , 2018, , 305-343.		1
25	iRhom2-mediated proinflammatory signalling regulates heart repair following myocardial infarction. JCI Insight, 2018, 3, .	2.3	13
26	Fast, quantitative, murine cardiac 19F MRI/MRS of PFCE-labeled progenitor stem cells and macrophages at 9.4T. PLoS ONE, 2018, 13, e0190558.	1.1	17
27	FRET biosensor uncovers cAMP nano-domains at Î²-adrenergic targets that dictate precise tuning of cardiac contractility. Nature Communications, 2017, 8, 15031.	5.8	166
28	Inhibition of sarcolemmal FAT/CD36 by sulfo-N-succinimidyl oleate rapidly corrects metabolism and restores function in the diabetic heart following hypoxia/reoxygenation. Cardiovascular Research, 2017, 113, 737-748.	1.8	50
29	Acetoacetate is a more efficient energy-yielding substrate for human mesenchymal stem cells than glucose and generates fewer reactive oxygen species. International Journal of Biochemistry and Cell Biology, 2017, 88, 75-83.	1.2	29
30	Ambiguity in the Presentation of Decellularized Tissue Composition: The Need for Standardized Approaches. Artificial Organs, 2017, 41, 778-784.	1.0	34
31	Câ€…Hyperpolarized magnetic resonance imaging of cardiac inflammation and repair. Heart, 2017, 103, A151.1-A151.	1.2	0
32	Increased oxidative metabolism following hypoxia in the type 2 diabetic heart, despite normal hypoxia signalling and metabolic adaptation. Journal of Physiology, 2016, 594, 307-320.	1.3	40
33	On the pivotal role of PPARa in adaptation of the heart to hypoxia and why fat in the diet increases hypoxic injury. FASEB Journal, 2016, 30, 2684-2697.	0.2	54
34	Stem Cell Therapy for the Heart: Blind Alley or Magic Bullet?. Journal of Cardiovascular Translational Research, 2016, 9, 405-418.	1.1	24
35	The von Hippel-Lindau Chuvash mutation in mice alters cardiac substrate and high-energy phosphate metabolism. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H759-H767.	1.5	11
36	Preconditioning of Cardiosphere-Derived Cells with Hypoxia or Prolyl-4-Hydroxylase Inhibitors Increases Stemness and Decreases Reliance on Oxidative Metabolism. Cell Transplantation, 2016, 25, 35-53.	1.2	28

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37	Chronic High-Fat Feeding Affects the Mesenchymal Cell Population Expanded From Adipose Tissue but Not Cardiac Atria. Stem Cells Translational Medicine, 2015, 4, 1403-1414.	1.6	8
38	Prevention of exercised induced cardiomyopathy following Pip-PMO treatment in dystrophic mdx mice. Scientific Reports, 2015, 5, 8986.	1.6	43
39	Implications for Cardiac Function Following Rescue of the Dystrophic Diaphragm in a Mouse Model of Duchenne Muscular Dystrophy. Scientific Reports, 2015, 5, 11632.	1.6	12
40	Cardiac lymphatics are heterogeneous in origin and respond to injury. Nature, 2015, 522, 62-67.	13.7	387
41	In vivo assessment of cardiac metabolism and function in the abdominal aortic banding model of compensated cardiac hypertrophy. Cardiovascular Research, 2015, 106, 249-260.	1.8	40
42	iASPP, a previously unidentified regulator of desmosomes, prevents arrhythmogenic right ventricular cardiomyopathy (ARVC)-induced sudden death. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E973-E981.	3.3	37
43	Uterine cellsâ€"an immunoprivileged cell source for therapyâ€"but are they for everyone?. Journal of Molecular and Cellular Cardiology, 2015, 85, 127-130.	0.9	0
44	Cardiac ferroportin regulates cellular iron homeostasis and is important for cardiac function. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3164-3169.	3.3	173
45	Increasing Pyruvate Dehydrogenase Flux as a Treatment for Diabetic Cardiomyopathy: A Combined 13C Hyperpolarized Magnetic Resonance and Echocardiography Study. Diabetes, 2015, 64, 2735-2743.	0.3	88
46	Impaired In Vivo Mitochondrial Krebs Cycle Activity After Myocardial Infarction Assessed Using Hyperpolarized Magnetic Resonance Spectroscopy. Circulation: Cardiovascular Imaging, 2014, 7, 895-904.	1.3	54
47	Investigating Mitochondrial Metabolism in Contracting HL-1 Cardiomyocytes Following Hypoxia and Pharmacological HIF Activation Identifies HIF-Dependent and Independent Mechanisms of Regulation. Journal of Cardiovascular Pharmacology and Therapeutics, 2014, 19, 574-585.	1.0	27
48	Murine Cardiosphere-Derived Cells Are Impaired by Age but Not by Cardiac Dystrophic Dysfunction. Stem Cells and Development, 2014, 23, 1027-1036.	1.1	25
49	Varying degrees of ventricular unloading in the heterotopic rat heart transplant model demonstrated by magnetic resonance imaging. International Journal of Biomedical Science, 2014, 10, 223-8.	0.5	1
50	Bio-mechanical Properties of Novel Bi-layer Collagen-Elastin Scaffolds for Heart Valve Tissue Engineering. Procedia Engineering, 2013, 59, 247-254.	1.2	27
51	Metabolic imaging of acute and chronic infarction in the perfused rat heart using hyperpolarised [1â€•13 C]pyruvate. NMR in Biomedicine, 2013, 26, 1441-1450.	1.6	40
52	Human Cardiosphere-Derived Cells from Patients with Chronic Ischaemic Heart Disease Can Be Routinely Expanded from Atrial but Not Epicardial Ventricular Biopsies. Journal of Cardiovascular Translational Research, 2012, 5, 678-687.	1.1	18
53	In vivo MRI Characterization of Progressive Cardiac Dysfunction in the mdx Mouse Model of Muscular Dystrophy. PLoS ONE, 2012, 7, e28569.	1.1	61
54	Efficient Differentiation of Human Induced Pluripotent Stem Cells Generates Cardiac Cells That Provide Protection Following Myocardial Infarction in the Rat. Stem Cells and Development, 2012, 21, 977-986.	1.1	91

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55	Identification of valid housekeeping genes for quantitative RT-PCR analysis of cardiosphere-derived cells preconditioned under hypoxia or with prolyl-4-hydroxylase inhibitors. Molecular Biology Reports, 2012, 39, 4857-4867.	1.0	78
56	First-pass perfusion CMR two days after infarction predicts severity of functional impairment six weeks later in the rat heart. Journal of Cardiovascular Magnetic Resonance, 2011, 13, 38.	1.6	12
57	Isolation and Expansion of Cardiosphereâ€Derived Stem Cells. Current Protocols in Stem Cell Biology, 2011, 16, 2C.3.1.	3.0	12
58	Cardiosphere-Derived Cells Improve Function in the Infarcted Rat Heart for at Least 16 Weeks â€“ an MRI Study. PLoS ONE, 2011, 6, e25669.	1.1	70
59	Magnetic Resonance Imaging Evaluation of Remodeling by Cardiac Elastomeric Tissue Scaffold Biomaterials in a Rat Model of Myocardial Infarction. Tissue Engineering - Part A, 2010, 16, 3395-3402.	1.6	73
60	Cineâ€MRI versus twoâ€dimensional echocardiography to measure <i>in vivo</i> left ventricular function in rat heart. NMR in Biomedicine, 2008, 21, 765-772.	1.6	56
61	Bone marrow-derived stromal cells home to and remain in the infarcted rat heart but fail to improve function: an in vivo cine-MRI study. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 295, H533-H542.	1.5	76
62	Iron Particles for Noninvasive Monitoring of Bone Marrow Stromal Cell Engraftment into, and Isolation of Viable Engrafted Donor Cells from, the Heart. Stem Cells, 2006, 24, 1968-1975.	1.4	123