Richard Southworth

List of Publications by Year
in descending order

45 papers	1,084 citations	471509 17 h-index	414414 32 g-index
47 all docs	47 docs citations	47 times ranked	1851 citing authors

#	Article	IF	Citations
1	Mitochondrial uncoupling, with low concentration FCCP, induces ROS-dependent cardioprotection independent of KATP channel activation. Cardiovascular Research, 2006, 72, 313-321.	3.8	205
2	Targeting hexokinase <scp>II</scp> to mitochondria to modulate energy metabolism and reduce ischaemiaâ€reperfusion injury in heart. British Journal of Pharmacology, 2014, 171, 2067-2079.	5.4	91
3	Disruption of Hexokinase IIâ€“Mitochondrial Binding Blocks Ischemic Preconditioning and Causes Rapid Cardiac Necrosis. Circulation Research, 2011, 108, 1165-1169.	4.5	73
4	Renal vascular inflammation induced by Western diet in ApoE-null mice quantified by 19F NMR of VCAM-1 targeted nanobeacons. Nanomedicine: Nanotechnology, Biology, and Medicine, 2009, 5, 359-367.	3.3	57
5	A reevaluation of the roles of hexokinase I and II in the heart. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H378-H386.	3.2	53
6	Tissue-specific differences in 2-fluoro-2-deoxyglucose metabolism beyond FDG-6-P: a19F NMR spectroscopy study in the rat. NMR in Biomedicine, 2003, 16, 494-502.	2.8	51
7	An isolated perfused pig heart model for the development, validation and translation of novel cardiovascular magnetic resonance techniques. Journal of Cardiovascular Magnetic Resonance, 2010, 12, 53.	3.3	43
8	Monitoring of In Vivo Function of Superparamagnetic Iron Oxide Labelled Murine Dendritic Cells during Anti-Tumour Vaccination. PLoS ONE, 2011, 6, e19662.	2.5	42
9	PET imaging of cardiac hypoxia: Opportunities and challenges. Journal of Molecular and Cellular Cardiology, 2011, 51, 640-650.	1.9	41
10	Immunogold labeling study of the distribution of GLUT-1 and GLUT-4 in cardiac tissue following stimulation by insulin or ischemia. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H2009-H2019.	3.2	39
11	Cardiac Hypoxia Imaging: Second-Generation Analogues of ⁶⁴Cu-ATSM. Journal of Nuclear Medicine, 2014, 55, 488-494.	5.0	37
12	Imaging of Chemotherapy-Induced Acute Cardiotoxicity with ¹⁸F-Labeled Lipophilic Cations. Journal of Nuclear Medicine, 2019, 60, 1750-1756.	5.0	26
13	64Cu-CTS: A Promising Radiopharmaceutical for the Identification of Low-Grade Cardiac Hypoxia by PET. Journal of Nuclear Medicine, 2015, 56, 921-926.	5.0	24
14	Multiple quantum filtered 23Na NMR in the Langendorff perfused mouse heart: Ratio of triple/double quantum filtered signals correlates with [Na]i. Journal of Molecular and Cellular Cardiology, 2015, 86, 95-101.	1.9	22
15	Lactate-induced translocation of GLUT1 and GLUT4 is not mediated by the phosphatidylinositol-3-kinase pathway in the rat heart. Basic Research in Cardiology, 2002, 97, 168-176.	5.9	21
16	Differential uptake of FDG and DG during post-ischaemic reperfusion in the isolated, perfused rat heart. European Journal of Nuclear Medicine and Molecular Imaging, 1999, 26, 1353.	2.1	19
17	Detection of anthracycline-induced cardiotoxicity using perfusion-corrected 99mTc sestamibi SPECT. Scientific Reports, 2019, 9, 216.	3.3	18
18	Modeling nonâ€linear kinetics of hyperpolarized [1â€¹³C] pyruvate in the crystalloidâ€perfused rat heart. NMR in Biomedicine, 2016, 29, 377-386.	2.8	17

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19	Dissociation of glucose tracer uptake and glucose transporter distribution in the regionally ischaemic isolated rat heart: application of a new autoradiographic technique. European Journal of Nuclear Medicine and Molecular Imaging, 2002, 29, 1334-1341.	6.4	16
20	Dobutamine responsiveness, PET mismatch, and lack of necrosis in low-flow ischemia: is this hibernation in the isolated rat heart?. American Journal of Physiology - Heart and Circulatory Physiology, 2003, 285, H316-H324.	3.2	15
21	Hexokinase-mitochondrial interaction in cardiac tissue: implications for cardiac glucose uptake, the 18FDG lumped constant and cardiac protection. Journal of Bioenergetics and Biomembranes, 2009, 41, 187-193.	2.3	15
22	Developmental Differences in Superoxide Production in Isolated Guinea-Pig Hearts During Reperfusion. Journal of Molecular and Cellular Cardiology, 1998, 30, 1391-1399.	1.9	13
23	PET Imaging of Cardiac Hypoxia: Hitting Hypoxia Where It Hurts. Current Cardiovascular Imaging Reports, 2018, 11, 7.	0.6	12
24	DO2A-based ligands for gallium-68 chelation: synthesis, radiochemistry and ex vivo cardiac uptake. Dalton Transactions, 2020, 49, 1097-1106.	3.3	12
25	Opportunities and Challenges for Metal Chemistry in Molecular Imaging. Advances in Inorganic Chemistry, 2016, 68, 1-41.	1.0	12
26	Assessing radiotracer kinetics in the Langendorff perfused heart. EJNMMI Research, 2013, 3, 74.	2.5	11
27	Pathophysiological Consequences of TAT-HKII Peptide Administration Are Independent of Impaired Vascular Function and Ensuing Ischemia. Circulation Research, 2013, 112, e8-13.	4.5	11
28	Demonstration of the retention of 64Cu-ATSM in cardiac myocytes using a novel incubation chamber for screening hypoxia-dependent radiotracers. Nuclear Medicine Communications, 2013, 34, 1015-1022.	1.1	11
29	Trapped Platelets Activated in Ischemia Initiate Ventricular Fibrillation. Circulation: Arrhythmia and Electrophysiology, 2013, 6, 995-1001.	4.8	11
30	Modification of intracellular glutathione status does not change the cardiac trapping of 64Cu(ATSM). EJNMMI Research, 2014, 4, 40.	2.5	10
31	Synthesis, gallium-68 radiolabelling and biological evaluation of a series of triarylphosphonium-functionalized DO3A chelators. Dalton Transactions, 2018, 47, 15448-15457.	3.3	10
32	Developing Hyperpolarized 13C Spectroscopy and Imaging for Metabolic Studies in the Isolated Perfused Rat Heart. Applied Magnetic Resonance, 2012, 43, 275-288.	1.2	9
33	Gallium: New developments and applications in radiopharmaceutics. Advances in Inorganic Chemistry, 2021, 78, 1-35.	1.0	9
34	The low oxygen-carrying capacity of Krebs buffer causes a doubling in ventricular wall thickness in the isolated heart. Canadian Journal of Physiology and Pharmacology, 2005, 83, 174-182.	1.4	7
35	Tissue acidosis does not mediate the hypoxia selectivity of [64Cu][Cu(ATSM)] in the isolated perfused rat heart. Scientific Reports, 2019, 9, 499.	3.3	6
36	Kinetic analysis of hyperpolarized data with minimum a priori knowledge: Hybrid maximum entropy and nonlinear least squares method (MEM/NLS). Magnetic Resonance in Medicine, 2015, 73, 2332-2342.	3.0	5

#	Article	IF	Citations
37	Detecting Validated Intracellular ROS Generation with 18F-dihydroethidine-Based PET. Molecular Imaging and Biology, 2022, 24, 377-383.	2.6	4
38	Synthesis and ex vivo biological evaluation of gallium-68 labelled NODAGA chelates assessing cardiac uptake and retention. Dalton Transactions, 2021, 50, 14695-14705.	3.3	2
39	A Reactivity-Based ¹⁸F-Labeled Probe for PET Imaging of Oxidative Stress in Chemotherapy-Induced Cardiotoxicity. Molecular Pharmaceutics, 2022, 19, 18-25.	4.6	2
40	Ischaemia and reperfusion increase sarcolemmal GLUT4 but decrease 2-fluoro-2-deoxyglucose-6P (FDGGP) accumulation. Journal of Molecular and Cellular Cardiology, 2001, 33, A176.	1.9	1
41	Lactate translocates GLUT4 and GLUT1 but decreases the accumulation of 2-deoxy-D-glucose-6P (DG6P) in the rat heart. Journal of Molecular and Cellular Cardiology, 2001, 33, A172.	1.9	0
42	18FDG6P and 14C DG6P accumulation differ in the isolated heart: An autoradiographic study. Journal of Molecular and Cellular Cardiology, 2002, 34, A59.	1.9	0
43	An isolated rat heart model of acute hibernation confirmed by flow-metabolism â€œmis-matchâ€•(PET) & dobutamine response. Journal of Molecular and Cellular Cardiology, 2002, 34, A60.	1.9	0
44	08 Disruption of hexokinase II-mitochondrial binding affects cardiac oxygen consumption and lactate production in the beating heart. Heart, 2011, 97, e8-e8.	2.9	0
45	07 Mitochondrial hexokinase II is essential for cardiac function and ischaemic preconditioning. Heart, 2011, 97, e8-e8.	2.9	0