

Ryan J Mailloux

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

80
papers

4,304
citations

38
h-index

65
g-index

80
ext. papers

5,001
ext. citations

5.3
avg, IF

6.39
L-index

#	Paper	IF	Citations
80	Uncoupling proteins and the control of mitochondrial reactive oxygen species production. <i>Free Radical Biology and Medicine</i> , 2011 , 51, 1106-15	7.8	379
79	OPA1-dependent cristae modulation is essential for cellular adaptation to metabolic demand. <i>EMBO Journal</i> , 2014 , 33, 2676-91	13	224
78	The tricarboxylic acid cycle, an ancient metabolic network with a novel twist. <i>PLoS ONE</i> , 2007 , 2, e690	3.7	219
77	Redox regulation of mitochondrial function with emphasis on cysteine oxidation reactions. <i>Redox Biology</i> , 2014 , 2, 123-39	11.3	194
76	Unearthing the secrets of mitochondrial ROS and glutathione in bioenergetics. <i>Trends in Biochemical Sciences</i> , 2013 , 38, 592-602	10.3	189
75	Teaching the fundamentals of electron transfer reactions in mitochondria and the production and detection of reactive oxygen species. <i>Redox Biology</i> , 2015 , 4, 381-98	11.3	155
74	Galactose enhances oxidative metabolism and reveals mitochondrial dysfunction in human primary muscle cells. <i>PLoS ONE</i> , 2011 , 6, e28536	3.7	152
73	Oxidative stress evokes a metabolic adaptation that favors increased NADPH synthesis and decreased NADH production in <i>Pseudomonas fluorescens</i> . <i>Journal of Bacteriology</i> , 2007 , 189, 6665-75	3.5	142
72	Glutathionylation acts as a control switch for uncoupling proteins UCP2 and UCP3. <i>Journal of Biological Chemistry</i> , 2011 , 286, 21865-75	5.4	139
71	Zinc toxicity alters mitochondrial metabolism and leads to decreased ATP production in hepatocytes. <i>Journal of Applied Toxicology</i> , 2008 , 28, 175-82	4.1	98
70	Mitochondrial Antioxidants and the Maintenance of Cellular Hydrogen Peroxide Levels. <i>Oxidative Medicine and Cellular Longevity</i> , 2018 , 2018, 7857251	6.7	96
69	Mitochondrial proticity and ROS signaling: lessons from the uncoupling proteins. <i>Trends in Endocrinology and Metabolism</i> , 2012 , 23, 451-8	8.8	96
68	Protein S-glutathionylation links energy metabolism to redox signaling in mitochondria. <i>Redox Biology</i> , 2016 , 8, 110-8	11.3	93
67	Hepatic response to aluminum toxicity: dyslipidemia and liver diseases. <i>Experimental Cell Research</i> , 2011 , 317, 2231-8	4.2	84
66	A novel strategy involved in [corrected] anti-oxidative defense: the conversion of NADH into NADPH by a metabolic network. <i>PLoS ONE</i> , 2008 , 3, e2682	3.7	84
65	S-glutathionylation reactions in mitochondrial function and disease. <i>Frontiers in Cell and Developmental Biology</i> , 2014 , 2, 68	5.7	80
64	Genipin-induced inhibition of uncoupling protein-2 sensitizes drug-resistant cancer cells to cytotoxic agents. <i>PLoS ONE</i> , 2010 , 5, e13289	3.7	80

63	Glutaredoxin-2 is required to control oxidative phosphorylation in cardiac muscle by mediating deglutathionylation reactions. <i>Journal of Biological Chemistry</i> , 2014 , 289, 14812-28	5.4	66
62	Metabolic networks to combat oxidative stress in <i>Pseudomonas fluorescens</i> . <i>Antonie Van Leeuwenhoek</i> , 2011 , 99, 433-42	2.1	66
61	Aluminum toxicity elicits a dysfunctional TCA cycle and succinate accumulation in hepatocytes. <i>Journal of Biochemical and Molecular Toxicology</i> , 2006 , 20, 198-208	3.4	65
60	Alpha-ketoglutarate dehydrogenase and glutamate dehydrogenase work in tandem to modulate the antioxidant alpha-ketoglutarate during oxidative stress in <i>Pseudomonas fluorescens</i> . <i>Journal of Bacteriology</i> , 2009 , 191, 3804-10	3.5	63
59	Mitochondrial lactate dehydrogenase is involved in oxidative-energy metabolism in human astrocytoma cells (CCF-STTG1). <i>PLoS ONE</i> , 2008 , 3, e1550	3.7	62
58	Aluminum-induced mitochondrial dysfunction leads to lipid accumulation in human hepatocytes: a link to obesity. <i>Cellular Physiology and Biochemistry</i> , 2007 , 20, 627-38	3.9	57
57	<i>Pseudomonas fluorescens</i> orchestrates a fine metabolic-balancing act to counter aluminium toxicity. <i>Environmental Microbiology</i> , 2010 , 12, 1384-90	5.2	53
56	An Update on Mitochondrial Reactive Oxygen Species Production. <i>Antioxidants</i> , 2020 , 9,	7.1	52
55	Glutathionylation state of uncoupling protein-2 and the control of glucose-stimulated insulin secretion. <i>Journal of Biological Chemistry</i> , 2012 , 287, 39673-85	5.4	52
54	Induction of mitochondrial reactive oxygen species production by GSH mediated S-glutathionylation of 2-oxoglutarate dehydrogenase. <i>Redox Biology</i> , 2016 , 8, 285-97	11.3	52
53	Protein S-glutathionylation alters superoxide/hydrogen peroxide emission from pyruvate dehydrogenase complex. <i>Free Radical Biology and Medicine</i> , 2017 , 106, 302-314	7.8	51
52	Glutaredoxin-2 is required to control proton leak through uncoupling protein-3. <i>Journal of Biological Chemistry</i> , 2013 , 288, 8365-8379	5.4	51
51	Glucose regulates enzymatic sources of mitochondrial NADPH in skeletal muscle cells; a novel role for glucose-6-phosphate dehydrogenase. <i>FASEB Journal</i> , 2010 , 24, 2495-506	0.9	50
50	An ATP and oxalate generating variant tricarboxylic acid cycle counters aluminum toxicity in <i>Pseudomonas fluorescens</i> . <i>PLoS ONE</i> , 2009 , 4, e7344	3.7	50
49	2-Oxoglutarate dehydrogenase is a more significant source of O ₂ (H)/H ₂ O ₂ than pyruvate dehydrogenase in cardiac and liver tissue. <i>Free Radical Biology and Medicine</i> , 2016 , 97, 501-512	7.8	49
48	Progress in understanding the molecular oxygen paradox - function of mitochondrial reactive oxygen species in cell signaling. <i>Biological Chemistry</i> , 2017 , 398, 1209-1227	4.5	48
47	Crucial yet divergent roles of mitochondrial redox state in skeletal muscle vs. brown adipose tissue energetics. <i>FASEB Journal</i> , 2012 , 26, 363-75	0.9	48
46	The overexpression of NADPH-producing enzymes counters the oxidative stress evoked by gallium, an iron mimetic. <i>BioMetals</i> , 2007 , 20, 165-76	3.4	46

45	Involvement of fumarase C and NADH oxidase in metabolic adaptation of <i>Pseudomonas fluorescens</i> cells evoked by aluminum and gallium toxicity. <i>Applied and Environmental Microbiology</i> , 2008 , 74, 3977-84	4.8	42
44	Alpha-ketoglutarate abrogates the nuclear localization of HIF-1alpha in aluminum-exposed hepatocytes. <i>Biochimie</i> , 2009 , 91, 408-15	4.6	39
43	Aluminum toxicity triggers the nuclear translocation of HIF-1alpha and promotes anaerobiosis in hepatocytes. <i>Toxicology in Vitro</i> , 2007 , 21, 16-24	3.6	39
42	Protein S-glutathionylation reactions as a global inhibitor of cell metabolism for the desensitization of hydrogen peroxide signals. <i>Redox Biology</i> , 2020 , 32, 101472	11.3	38
41	Examination of the superoxide/hydrogen peroxide forming and quenching potential of mouse liver mitochondria. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017 , 1861, 1960-1969	4	34
40	Characterization of the impact of glutaredoxin-2 (GRX2) deficiency on superoxide/hydrogen peroxide release from cardiac and liver mitochondria. <i>Redox Biology</i> , 2018 , 15, 216-227	11.3	33
39	The disruption of L-carnitine metabolism by aluminum toxicity and oxidative stress promotes dyslipidemia in human astrocytic and hepatic cells. <i>Toxicology Letters</i> , 2011 , 203, 219-26	4.4	33
38	Glutathionylation of UCP2 sensitizes drug resistant leukemia cells to chemotherapeutics. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2013 , 1833, 80-9	4.9	32
37	Lactate dehydrogenase supports lactate oxidation in mitochondria isolated from different mouse tissues. <i>Redox Biology</i> , 2020 , 28, 101339	11.3	32
36	SPG7 variant escapes phosphorylation-regulated processing by AFG3L2, elevates mitochondrial ROS, and is associated with multiple clinical phenotypes. <i>Cell Reports</i> , 2014 , 7, 834-47	10.6	29
35	Mitochondrial uncoupling in skeletal muscle by UCP1 augments energy expenditure and glutathione content while mitigating ROS production. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2013 , 305, E405-15	6	29
34	A novel metabolic network leads to enhanced citrate biogenesis in <i>Pseudomonas fluorescens</i> exposed to aluminum toxicity. <i>Extremophiles</i> , 2008 , 12, 451-9	3	27
33	Detection and purification of glucose 6-phosphate dehydrogenase, malic enzyme, and NADP-dependent isocitrate dehydrogenase by blue native polyacrylamide gel electrophoresis. <i>Electrophoresis</i> , 2005 , 26, 2892-7	3.6	27
32	Application of Mitochondria-Targeted Pharmaceuticals for the Treatment of Heart Disease. <i>Current Pharmaceutical Design</i> , 2016 , 22, 4763-4779	3.3	27
31	Hexokinase II acts through UCP3 to suppress mitochondrial reactive oxygen species production and maintain aerobic respiration. <i>Biochemical Journal</i> , 2011 , 437, 301-11	3.8	26
30	Protein S-glutathionylation: The linchpin for the transmission of regulatory information on redox buffering capacity in mitochondria. <i>Chemico-Biological Interactions</i> , 2019 , 299, 151-162	5	25
29	Estimation of the hydrogen peroxide producing capacities of liver and cardiac mitochondria isolated from C57BL/6N and C57BL/6J mice. <i>Free Radical Biology and Medicine</i> , 2019 , 135, 15-27	7.8	24
28	Exposure to a northern contaminant mixture (NCM) alters hepatic energy and lipid metabolism exacerbating hepatic steatosis in obese JCR rats. <i>PLoS ONE</i> , 2014 , 9, e106832	3.7	23

27	Protein S-glutathionylation lowers superoxide/hydrogen peroxide release from skeletal muscle mitochondria through modification of complex I and inhibition of pyruvate uptake. <i>PLoS ONE</i> , 2018 , 13, e0192801	3.7	23
26	Mitochondrial lactate metabolism is involved in antioxidative defense in human astrocytoma cells. <i>Journal of Neuroscience Research</i> , 2014 , 92, 464-75	4.4	19
25	Methylmercury alters glutathione homeostasis by inhibiting glutaredoxin 1 and enhancing glutathione biosynthesis in cultured human astrocytoma cells. <i>Toxicology Letters</i> , 2016 , 256, 1-10	4.4	17
24	Impact of methylmercury exposure on mitochondrial energetics in AC16 and H9C2 cardiomyocytes. <i>Toxicology in Vitro</i> , 2015 , 29, 953-61	3.6	16
23	Choline and dimethylglycine produce superoxide/hydrogen peroxide from the electron transport chain in liver mitochondria. <i>FEBS Letters</i> , 2016 , 590, 4318-4328	3.8	16
22	In-gel activity staining of oxidized nicotinamide adenine dinucleotide kinase by blue native polyacrylamide gel electrophoresis. <i>Analytical Biochemistry</i> , 2006 , 359, 210-5	3.1	16
21	The GLP-1 Receptor Agonist Liraglutide Increases Myocardial Glucose Oxidation Rates via Indirect Mechanisms and Mitigates Experimental Diabetic Cardiomyopathy. <i>Canadian Journal of Cardiology</i> , 2021 , 37, 140-150	3.8	15
20	Metabolic adaptation and oxaloacetate homeostasis in <i>P. fluorescens</i> exposed to aluminum toxicity. <i>Journal of Basic Microbiology</i> , 2008 , 48, 252-9	2.7	14
19	The monitoring of nucleotide diphosphate kinase activity by blue native polyacrylamide gel electrophoresis. <i>Electrophoresis</i> , 2008 , 29, 1484-9	3.6	14
18	Superoxide produced in the matrix of mitochondria enhances methylmercury toxicity in human neuroblastoma cells. <i>Toxicology and Applied Pharmacology</i> , 2015 , 289, 371-80	4.6	13
17	Partial loss of complex I due to NDUFS4 deficiency augments myocardial reperfusion damage by increasing mitochondrial superoxide/hydrogen peroxide production. <i>Biochemical and Biophysical Research Communications</i> , 2018 , 498, 214-220	3.4	13
16	A Northern contaminant mixture impairs pancreas function in obese and lean JCR rats and inhibits insulin secretion in MIN6 cells. <i>Toxicology</i> , 2015 , 334, 81-93	4.4	12
15	Deletion of the Glutaredoxin-2 Gene Protects Mice from Diet-Induced Weight Gain, Which Correlates with Increased Mitochondrial Respiration and Proton Leaks in Skeletal Muscle. <i>Antioxidants and Redox Signaling</i> , 2019 , 31, 1272-1288	8.4	12
14	Physiological levels of formate activate mitochondrial superoxide/hydrogen peroxide release from mouse liver mitochondria. <i>FEBS Letters</i> , 2017 , 591, 2426-2438	3.8	11
13	C57BL/6J mice upregulate catalase to maintain the hydrogen peroxide buffering capacity of liver mitochondria. <i>Free Radical Biology and Medicine</i> , 2020 , 146, 59-69	7.8	9
12	Superoxide anion radical (O ₂ ⁻) degrades methylmercury to inorganic mercury in human astrocytoma cell line (CCF-STTG1). <i>Chemico-Biological Interactions</i> , 2015 , 239, 46-55	5	8
11	Sex-dependent Differences in the Bioenergetics of Liver and Muscle Mitochondria from Mice Containing a Deletion for. <i>Antioxidants</i> , 2019 , 8,	7.1	6
10	An update on methods and approaches for interrogating mitochondrial reactive oxygen species production. <i>Redox Biology</i> , 2021 , 45, 102044	11.3	6

9	Bisphenol A exposure alters release of immune and developmental modulators and expression of estrogen receptors in human fetal lung fibroblasts. <i>Journal of Environmental Sciences</i> , 2016 , 48, 11-23	6.4	5
8	The Uncoupling Proteins: A Systematic Review on the Mechanism Used in the Prevention of Oxidative Stress.. <i>Antioxidants</i> , 2022 , 11,	7.1	4
7	The glutathionylation agent disulfiram augments superoxide/hydrogen peroxide production when liver mitochondria are oxidizing ubiquinone pool-linked and branched chain amino acid substrates. <i>Free Radical Biology and Medicine</i> , 2021 , 172, 1-8	7.8	4
6	Simultaneous Measurement of Superoxide/Hydrogen Peroxide and NADH Production by Flavin-containing Mitochondrial Dehydrogenases. <i>Journal of Visualized Experiments</i> , 2018 ,	1.6	3
5	Cysteine Switches and the Regulation of Mitochondrial Bioenergetics and ROS Production. <i>Advances in Experimental Medicine and Biology</i> , 2019 , 1158, 197-216	3.6	3
4	Protein S-glutathionylation decreases superoxide/hydrogen peroxide production xanthine oxidoreductase. <i>Free Radical Biology and Medicine</i> , 2021 , 175, 184-192	7.8	1
3	Protein S-glutathionylation and the regulation of cellular functions 2020 , 217-247		0
2	An investigation into the impact of deleting one copy of the gene on diet-induced weight gain and the bioenergetics of muscle mitochondria in female mice fed a high fat diet. <i>Redox Report</i> , 2020 , 25, 87-94	5.9	0
1	Simultaneous Monitoring of Activities of Numerous Tricarboxylic Acid Cycle Enzymes by Blue Native Polyacrylamide Gel Electrophoresis. <i>Asian Journal of Biochemistry</i> , 2006 , 1, 297-306	0.1	