Ryan J Mailloux

List of Publications by Year
in descending order

80 papers	5,610 citations	76031 42 h-index	90395 73 g-index
80 all docs	80 docs citations	80 times ranked	9041 citing authors

#	Article	IF	Citations
1	The Uncoupling Proteins: A Systematic Review on the Mechanism Used in the Prevention of Oxidative Stress. Antioxidants, 2022, 11, 322.	2.2	42
2	The GLP-1 Receptor Agonist Liraglutide Increases Myocardial Glucose Oxidation Rates via Indirect Mechanisms and Mitigates Experimental Diabetic Cardiomyopathy. Canadian Journal of Cardiology, 2021, 37, 140-150.	0.8	33
3	The glutathionylation agent disulfiram augments superoxide/hydrogen peroxide production when liver mitochondria are oxidizing ubiquinone pool-linked and branched chain amino acid substrates. Free Radical Biology and Medicine, 2021, 172, 1-8.	1.3	11
4	An update on methods and approaches for interrogating mitochondrial reactive oxygen species production. Redox Biology, 2021, 45, 102044.	3.9	25
5	Protein S-glutathionylation decreases superoxide/hydrogen peroxide production xanthine oxidoreductase. Free Radical Biology and Medicine, 2021, 175, 184-192.	1.3	6
6	C57BL/6J mice upregulate catalase to maintain the hydrogen peroxide buffering capacity of liver mitochondria. Free Radical Biology and Medicine, 2020, 146, 59-69.	1.3	17
7	Lactate dehydrogenase supports lactate oxidation in mitochondria isolated from different mouse tissues. Redox Biology, 2020, 28, 101339.	3.9	70
8	Protein S-glutathionylation and the regulation of cellular functions. , 2020, , 217-247.		2
9	An investigation into the impact of deleting one copy of the glutaredoxin-2 gene on diet-induced weight gain and the bioenergetics of muscle mitochondria in female mice fed a high fat diet. Redox Report, 2020, 25, 87-94.	1.4	5
10	An Update on Mitochondrial Reactive Oxygen Species Production. Antioxidants, 2020, 9, 472.	2.2	128
11	Protein S-glutathionylation reactions as a global inhibitor of cell metabolism for the desensitization of hydrogen peroxide signals. Redox Biology, 2020, 32, 101472.	3.9	73
12	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. Antioxidants and Redox Signaling, 2019, 31, 1272-1288.	2.5	19
13	Sex-dependent Differences in the Bioenergetics of Liver and Muscle Mitochondria from Mice Containing a Deletion for glutaredoxin-2. Antioxidants, 2019, 8, 245.	2.2	18
14	Estimation of the hydrogen peroxide producing capacities of liver and cardiac mitochondria isolated from C57BL/6N and C57BL/6J mice. Free Radical Biology and Medicine, 2019, 135, 15-27.	1.3	40
15	Protein S-glutathionylation: The linchpin for the transmission of regulatory information on redox buffering capacity in mitochondria. Chemico-Biological Interactions, 2019, 299, 151-162.	1.7	33
16	Cysteine Switches and the Regulation of Mitochondrial Bioenergetics and ROS Production. Advances in Experimental Medicine and Biology, 2019, 1158, 197-216.	0.8	8
17	Partial loss of complex I due to NDUFS4 deficiency augments myocardial reperfusion damage by increasing mitochondrial superoxide/hydrogen peroxide production. Biochemical and Biophysical Research Communications, 2018, 498, 214-220.	1.0	15
18	Characterization of the impact of glutaredoxin-2 (GRX2) deficiency on superoxide/hydrogen peroxide release from cardiac and liver mitochondria. Redox Biology, 2018, 15, 216-227.	3.9	46

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19	Simultaneous Measurement of Superoxide/Hydrogen Peroxide and NADH Production by Flavin-containing Mitochondrial Dehydrogenases. Journal of Visualized Experiments, 2018, , .	0.2	4
20	Mitochondrial Antioxidants and the Maintenance of Cellular Hydrogen Peroxide Levels. Oxidative Medicine and Cellular Longevity, 2018, 2018, 1-10.	1.9	141
21	Protein S-glutathionylation lowers superoxide/hydrogen peroxide release from skeletal muscle mitochondria through modification of complex I and inhibition of pyruvate uptake. PLoS ONE, 2018, 13, e0192801.	1.1	29
22	Protein S-glutathionylation alters superoxide/hydrogen peroxide emission from pyruvate dehydrogenase complex. Free Radical Biology and Medicine, 2017, 106, 302-314.	1.3	70
23	Examination of the superoxide/hydrogen peroxide forming and quenching potential of mouse liver mitochondria. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 1960-1969.	1.1	44
24	Physiological levels of formate activate mitochondrial superoxide/hydrogen peroxide release from mouse liver mitochondria. FEBS Letters, 2017, 591, 2426-2438.	1.3	17
25	Progress in understanding the molecular oxygen paradox â€“ function of mitochondrial reactive oxygen species in cell signaling. Biological Chemistry, 2017, 398, 1209-1227.	1.2	58
26	Protein S-glutathionlyation links energy metabolism to redox signaling in mitochondria. Redox Biology, 2016, 8, 110-118.	3.9	107
27	Induction of mitochondrial reactive oxygen species production by GSH mediated S-glutathionylation of 2-oxoglutarate dehydrogenase. Redox Biology, 2016, 8, 285-297.	3.9	74
28	2-Oxoglutarate dehydrogenase is a more significant source of O2Â·â˜'/H2O2 than pyruvate dehydrogenase in cardiac and liver tissue. Free Radical Biology and Medicine, 2016, 97, 501-512.	1.3	67
29	Choline and dimethylglycine produce superoxide/hydrogen peroxide from the electron transport chain in liver mitochondria. FEBS Letters, 2016, 590, 4318-4328.	1.3	23
30	Bisphenol A exposure alters release of immune and developmental modulators and expression of estrogen receptors in human fetal lung fibroblasts. Journal of Environmental Sciences, 2016, 48, 11-23.	3.2	8
31	Methylmercury alters glutathione homeostasis by inhibiting glutaredoxin 1 and enhancing glutathione biosynthesis in cultured human astrocytoma cells. Toxicology Letters, 2016, 256, 1-10.	0.4	22
32	Application of Mitochondria-Targeted Pharmaceuticals for the Treatment of Heart Disease. Current Pharmaceutical Design, 2016, 22, 4763-4779.	0.9	35
33	Teaching the fundamentals of electron transfer reactions in mitochondria and the production and detection of reactive oxygen species. Redox Biology, 2015, 4, 381-398.	3.9	203
34	Superoxide anion radical (<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML") Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 157 T mercury in human astrocytoma cell line (CCF-STTG1). Chemico-Biological Interactions, 2015, 239, 46-55.	1.7	15
35	Impact of methylmercury exposure on mitochondrial energetics in AC16 and H9C2 cardiomyocytes. Toxicology in Vitro, 2015, 29, 953-961.	1.1	19
36	Superoxide produced in the matrix of mitochondria enhances methylmercury toxicity in human neuroblastoma cells. Toxicology and Applied Pharmacology, 2015, 289, 371-380.	1.3	17

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37	A Northern contaminant mixture impairs pancreas function in obese and lean JCR rats and inhibits insulin secretion in MIN6 cells. Toxicology, 2015, 334, 81-93.	2.0	15
38	S-glutathionylation reactions in mitochondrial function and disease. Frontiers in Cell and Developmental Biology, 2014, 2, 68.	1.8	105
39	Glutaredoxin-2 Is Required to Control Oxidative Phosphorylation in Cardiac Muscle by Mediating Deglutathionylation Reactions. Journal of Biological Chemistry, 2014, 289, 14812-14828.	1.6	81
40	Exposure to a Northern Contaminant Mixture (NCM) Alters Hepatic Energy and Lipid Metabolism Exacerbating Hepatic Steatosis in Obese JCR Rats. PLoS ONE, 2014, 9, e106832.	1.1	24
41	Mitochondrial lactate metabolism is involved in antioxidative defense in human astrocytoma cells. Journal of Neuroscience Research, 2014, 92, 464-475.	1.3	24
42	Redox regulation of mitochondrial function with emphasis on cysteine oxidation reactions. Redox Biology, 2014, 2, 123-139.	3.9	247
43	OPA1â€dependent cristae modulation is essential for cellular adaptation to metabolic demand. EMBO Journal, 2014, 33, 2676-2691.	3.5	312
44	SPG7 Variant Escapes Phosphorylation-Regulated Processing by AFG3L2, Elevates Mitochondrial ROS, and Is Associated with Multiple Clinical Phenotypes. Cell Reports, 2014, 7, 834-847.	2.9	39
45	Unearthing the secrets of mitochondrial ROS and glutathione in bioenergetics. Trends in Biochemical Sciences, 2013, 38, 592-602.	3.7	241
46	Glutathionylation of UCP2 sensitizes drug resistant leukemia cells to chemotherapeutics. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 80-89.	1.9	35
47	Glutaredoxin-2 Is Required to Control Proton Leak through Uncoupling Protein-3. Journal of Biological Chemistry, 2013, 288, 8365-8379.	1.6	61
48	Mitochondrial uncoupling in skeletal muscle by UCP1 augments energy expenditure and glutathione content while mitigating ROS production. American Journal of Physiology - Endocrinology and Metabolism, 2013, 305, E405-E415.	1.8	38
49	Glutathionylation State of Uncoupling Protein-2 and the Control of Glucose-stimulated Insulin Secretion. Journal of Biological Chemistry, 2012, 287, 39673-39685.	1.6	57
50	Crucial yet divergent roles of mitochondrial redox state in skeletal muscle <i>vs</i> . brown adipose tissue energetics. FASEB Journal, 2012, 26, 363-375.	0.2	56
51	Mitochondrial proticity and ROS signaling: lessons from the uncoupling proteins. Trends in Endocrinology and Metabolism, 2012, 23, 451-458.	3.1	108
52	The disruption of l-carnitine metabolism by aluminum toxicity and oxidative stress promotes dyslipidemia in human astrocytic and hepatic cells. Toxicology Letters, 2011, 203, 219-226.	0.4	38
53	Hexokinase II acts through UCP3 to suppress mitochondrial reactive oxygen species production and maintain aerobic respiration. Biochemical Journal, 2011, 437, 301-311.	1.7	32
54	Hepatic response to aluminum toxicity: Dyslipidemia and liver diseases. Experimental Cell Research, 2011, 317, 2231-2238.	1.2	107

#	ARTICLE	IF	CITATIONS
55	Uncoupling proteins and the control of mitochondrial reactive oxygen species production. Free Radical Biology and Medicine, 2011, 51, 1106-1115.	1.3	460
56	Metabolic networks to combat oxidative stress in Pseudomonas fluorescens. Antonie Van Leeuwenhoek, 2011, 99, 433-442.	0.7	80
57	Glutathionylation Acts as a Control Switch for Uncoupling Proteins UCP2 and UCP3. Journal of Biological Chemistry, 2011, 286, 21865-21875.	1.6	156
58	Galactose Enhances Oxidative Metabolism and Reveals Mitochondrial Dysfunction in Human Primary Muscle Cells. PLoS ONE, 2011, 6, e28536.	1.1	198
59	<i>Pseudomonas fluorescens</i> orchestrates a fine metabolicâ€balancing act to counter aluminium toxicity. Environmental Microbiology, 2010, 12, 1384-1390.	1.8	71
60	Glucose regulates enzymatic sources of mitochondrial NADPH in skeletal muscle cells; a novel role for glucoseâ€6â€phosphate dehydrogenase. FASEB Journal, 2010, 24, 2495-2506.	0.2	60
61	Genipin-Induced Inhibition of Uncoupling Protein-2 Sensitizes Drug-Resistant Cancer Cells to Cytotoxic Agents. PLoS ONE, 2010, 5, e13289.	1.1	86
62	Î±-Ketoglutarate Dehydrogenase and Glutamate Dehydrogenase Work in Tandem To Modulate the Antioxidant Î±-Ketoglutarate during Oxidative Stress in <i>Pseudomonas fluorescens</i>. Journal of Bacteriology, 2009, 191, 3804-3810.	1.0	80
63	Î±-Ketoglutarate abrogates the nuclear localization of HIF-1Î± in aluminum-exposed hepatocytes. Biochimie, 2009, 91, 408-415.	1.3	45
64	An ATP and Oxalate Generating Variant Tricarboxylic Acid Cycle Counters Aluminum Toxicity in Pseudomonas fluorescens. PLoS ONE, 2009, 4, e7344.	1.1	60
65	A novel metabolic network leads to enhanced citrate biogenesis in Pseudomonas fluorescens exposed to aluminum toxicity. Extremophiles, 2008, 12, 451-459.	0.9	33
66	Metabolic adaptation and oxaloacetate homeostasis in <i>P. fluorescens </i> exposed to aluminum toxicity. Journal of Basic Microbiology, 2008, 48, 252-259.	1.8	20
67	Zinc toxicity alters mitochondrial metabolism and leads to decreased ATP production in hepatocytes. Journal of Applied Toxicology, 2008, 28, 175-182.	1.4	108
68	The monitoring of nucleotide diphosphate kinase activity by blue native polyacrylamide gel electrophoresis. Electrophoresis, 2008, 29, 1484-1489.	1.3	14
69	Involvement of Fumarase C and NADH Oxidase in Metabolic Adaptation of<i>Pseudomonas fluorescens</i>Cells Evoked by Aluminum and Gallium Toxicity. Applied and Environmental Microbiology, 2008, 74, 3977-3984.	1.4	49
70	Mitochondrial Lactate Dehydrogenase Is Involved in Oxidative-Energy Metabolism in Human Astrocytoma Cells (CCF-STTG1). PLoS ONE, 2008, 3, e1550.	1.1	75
71	A Novel Strategy Involved Anti-Oxidative Defense: The Conversion of NADH into NADPH by a Metabolic Network. PLoS ONE, 2008, 3, e2682.	1.1	101
72	Oxidative Stress Evokes a Metabolic Adaptation That Favors Increased NADPH Synthesis and Decreased NADH Production in Pseudomonas fluorescens. Journal of Bacteriology, 2007, 189, 6665-6675.	1.0	176

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73	Aluminum-Induced Mitochondrial Dysfunction Leads to Lipid Accumulation in Human Hepatocytes: A Link to Obesity. Cellular Physiology and Biochemistry, 2007, 20, 627-638.	1.1	74
74	Aluminum toxicity triggers the nuclear translocation of HIF-1Î± and promotes anaerobiosis in hepatocytes. Toxicology in Vitro, 2007, 21, 16-24.	1.1	45
75	The overexpression of NADPH-producing enzymes counters the oxidative stress evoked by gallium, an iron mimetic. BioMetals, 2007, 20, 165-176.	1.8	54
76	The Tricarboxylic Acid Cycle, an Ancient Metabolic Network with a Novel Twist. PLoS ONE, 2007, 2, e690.	1.1	281
77	In-gel activity staining of oxidized nicotinamide adenine dinucleotide kinase by blue native polyacrylamide gel electrophoresis. Analytical Biochemistry, 2006, 359, 210-215.	1.1	18
78	Aluminum toxicity elicits a dysfunctional TCA cycle and succinate accumulation in hepatocytes. Journal of Biochemical and Molecular Toxicology, 2006, 20, 198-208.	1.4	75
79	Simultaneous Monitoring of Activities of Numerous Tricarboxylic Acid Cycle Enzymes by Blue Native Polyacrylamide Gel Electrophoresis. Asian Journal of Biochemistry, 2006, 1, 297-306.	0.5	0
80	Detection and purification of glucose 6-phosphate dehydrogenase, malic enzyme, and NADP-dependent isocitrate dehydrogenase by blue native polyacrylamide gel electrophoresis. Electrophoresis, 2005, 26, 2892-2897.	1.3	27