Michael R Duchen

List of Publications by Year
in descending order

220 papers	33,050 citations	2669 95 h-index	3997 176 g-index
236 all docs	236 docs citations	236 times ranked	44413 citing authors

#	Article	IF	Citations
1	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	4.3	4,701
2	Ischaemic accumulation of succinate controls reperfusion injury through mitochondrial ROS. Nature, 2014, 515, 431-435.	13.7	1,989
3	Mitochondria and calcium: from cell signalling to cell death. Journal of Physiology, 2000, 529, 57-68.	1.3	1,031
4	Mitochondria in health and disease: perspectives on a new mitochondrial biology. Molecular Aspects of Medicine, 2004, 25, 365-451.	2.7	617
5	PINK1-Associated Parkinson's Disease Is Caused by Neuronal Vulnerability to Calcium-Induced Cell Death. Molecular Cell, 2009, 33, 627-638.	4.5	584
6	Three Distinct Mechanisms Generate Oxygen Free Radicals in Neurons and Contribute to Cell Death during Anoxia and Reoxygenation. Journal of Neuroscience, 2007, 27, 1129-1138.	1.7	563
7	Contributions of mitochondria to animal physiology: from homeostatic sensor to calcium signalling and cell death. Journal of Physiology, 1999, 516, 1-17.	1.3	553
8	Cellular and molecular mechanisms of mitochondrial function. Best Practice and Research in Clinical Endocrinology and Metabolism, 2012, 26, 711-723.	2.2	542
9	Â-Amyloid Peptides Induce Mitochondrial Dysfunction and Oxidative Stress in Astrocytes and Death of Neurons through Activation of NADPH Oxidase. Journal of Neuroscience, 2004, 24, 565-575.	1.7	525
10	Unexpected lowâ€dose toxicity of the universal solvent DMSO. FASEB Journal, 2014, 28, 1317-1330.	0.2	515
11	The Role of Mitochondrial Function in the Oocyte and Embryo. Current Topics in Developmental Biology, 2007, 77, 21-49.	1.0	433
12	Separating NADH and NADPH fluorescence in live cells and tissues using FLIM. Nature Communications, 2014, 5, 3936.	5.8	428
13	Maternal Diet-Induced Obesity Alters Mitochondrial Activity and Redox Status in Mouse Oocytes and Zygotes. PLoS ONE, 2010, 5, e10074.	1.1	401
14	Roles of Mitochondria in Health and Disease. Diabetes, 2004, 53, S96-S102.	0.3	371
15	Promoting the clearance of neurotoxic proteins in neurodegenerative disorders of ageing. Nature Reviews Drug Discovery, 2018, 17, 660-688.	21.5	370
16	The effect of nitric oxide on cell respiration: A key to understanding its role in cell survival or death. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 14602-14607.	3.3	354
17	Inhibiting mitochondrial permeability transition pore opening at reperfusion protects against ischaemiaâ€“reperfusion injury. Cardiovascular Research, 2003, 60, 617-625.	1.8	350
18	Mitochondria: The Hub of Cellular Ca²⁺Signaling. Physiology, 2008, 23, 84-94.	1.6	342

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19	Endothelial Mitochondria. Circulation Research, 2007, 100, 1128-1141.	2.0	331
20	Transient Mitochondrial Permeability Transition Pore Opening Mediates Preconditioning-Induced Protection. Circulation, 2004, 109, 1714-1717.	1.6	319
21	Loss-of-function mutations in MICU1 cause a brain and muscle disorder linked to primary alterations in mitochondrial calcium signaling. Nature Genetics, 2014, 46, 188-193.	9.4	311
22	Reversal of Mitochondrial Transhydrogenase Causes Oxidative Stress in Heart Failure. Cell Metabolism, 2015, 22, 472-484.	7.2	307
23	Changes in Intracellular Calcium and Glutathione in Astrocytes as the Primary Mechanism of Amyloid Neurotoxicity. Journal of Neuroscience, 2003, 23, 5088-5095.	1.7	303
24	Mitochondria and Ca2+in cell physiology and pathophysiology. Cell Calcium, 2000, 28, 339-348.	1.1	289
25	Mitochondria Exert a Negative Feedback on the Propagation of Intracellular Ca2+ Waves in Rat Cortical Astrocytes. Journal of Cell Biology, 1999, 145, 795-808.	2.3	278
26	Mitochondria and Quality Control Defects in a Mouse Model of Gaucher Diseaseâ€"Links to Parkinsonâ€™s Disease. Cell Metabolism, 2013, 17, 941-953.	7.2	277
27	PINK1 Is Necessary for Long Term Survival and Mitochondrial Function in Human Dopaminergic Neurons. PLoS ONE, 2008, 3, e2455.	1.1	273
28	On the involvement of a cyclosporin A sensitive mitochondrial pore in myocardial reperfusion injury. Cardiovascular Research, 1993, 27, 1790-1794.	1.8	268
29	Investigating mitochondrial redox state using NADH and NADPH autofluorescence. Free Radical Biology and Medicine, 2016, 100, 53-65.	1.3	266
30	Regulation of Mitochondrial Structure and Function by the F1Fo-ATPase Inhibitor Protein, IF1. Cell Metabolism, 2008, 8, 13-25.	7.2	246
31	Three-Dimensional Human iPSC-Derived Artificial Skeletal Muscles Model Muscular Dystrophies and Enable Multilineage Tissue Engineering. Cell Reports, 2018, 23, 899-908.	2.9	245
32	Transient Mitochondrial Depolarizations Reflect Focal Sarcoplasmic Reticular Calcium Release in Single Rat Cardiomyocytes. Journal of Cell Biology, 1998, 142, 975-988.	2.3	237
33	Mitochondrial oxidative stress and cell death in astrocytes â€"requirement for stored Ca2+ and sustained opening of the permeability transition pore. Journal of Cell Science, 2002, 115, 1175-1188.	1.2	236
34	Relative mitochondrial membrane potential and [Ca2+]i in type I cells isolated from the rabbit carotid body.. Journal of Physiology, 1992, 450, 33-61.	1.3	231
35	Flirting in Little Space: The ER/Mitochondria Ca ²⁺ Liaison. Science Signaling, 2004, 2004, re1.	1.6	231
36	Diabetes causes marked inhibition of mitochondrial metabolism in pancreatic Î²-cells. Nature Communications, 2019, 10, 2474.	5.8	223

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37	Mitochondrial function and redox state in mammalian embryos. Seminars in Cell and Developmental Biology, 2009, 20, 346-353.	2.3	214
38	Expression and Modulation of an NADPH Oxidase in Mammalian Astrocytes. Journal of Neuroscience, 2005, 25, 9176-9184.	1.7	213
39	Sperm-triggered [Ca2+] oscillations and Ca2+homeostasis in the mouse egg have an absolute requirement for mitochondrial ATP production. Development (Cambridge), 2004, 131, 3057-3067.	1.2	209
40	[17] Imaging mitochondrial function in intact cells. Methods in Enzymology, 2003, 361, 353-389.	0.4	205
41	Preconditioning protects by inhibiting the mitochondrial permeability transition. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H841-H849.	1.5	205
42	Mitochondrial uncoupling, with low concentration FCCP, induces ROS-dependent cardioprotection independent of KATP channel activation. Cardiovascular Research, 2006, 72, 313-321.	1.8	205
43	Regulation of redox metabolism in the mouse oocyte and embryo. Development (Cambridge), 2007, 134, 455-465.	1.2	201
44	Targeted polyphosphatase expression alters mitochondrial metabolism and inhibits calcium-dependent cell death. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18091-18096.	3.3	196
45	Mitochondrial oxidative stress and cell death in astrocytes--requirement for stored Ca2+ and sustained opening of the permeability transition pore. Journal of Cell Science, 2002, 115, 1175-88.	1.2	196
46	The mitochondrial calcium uniporter regulates breast cancer progression via <scp>HIF</scp> â€•1Î±. EMBO Molecular Medicine, 2016, 8, 569-585.	3.3	195
47	Î²-Amyloid Fragment 25â€“35 Causes Mitochondrial Dysfunction in Primary Cortical Neurons. Neurobiology of Disease, 2002, 10, 258-267.	2.1	193
48	Calcium signals induced by amyloid Î² peptide and their consequences in neurons and astrocytes in culture. Biochimica Et Biophysica Acta - Molecular Cell Research, 2004, 1742, 81-87.	1.9	192
49	Glutamate-induced mitochondrial depolarisation and perturbation of calcium homeostasis in cultured rat hippocampal neurones. Journal of Physiology, 1999, 519, 451-466.	1.3	191
50	Toxicity of Amyloid Î² Peptide: Tales of Calcium, Mitochondria, and Oxidative Stress. Neurochemical Research, 2004, 29, 637-650.	1.6	189
51	Mitochondrial function in type I cells isolated from rabbit arterial chemoreceptors.. Journal of Physiology, 1992, 450, 13-31.	1.3	186
52	Sulforaphane preconditioning of the Nrf2/HO-1 defense pathway protects the cerebral vasculature against bloodâ€“brain barrier disruption and neurological deficits in stroke. Free Radical Biology and Medicine, 2013, 65, 1012-1022.	1.3	186
53	The large-conductance Ca2+-activated K+ channel is essential for innate immunity. Nature, 2004, 427, 853-858.	13.7	185
54	PPARÎ³ as a therapeutic target to rescue mitochondrial function in neurological disease. Free Radical Biology and Medicine, 2016, 100, 153-163.	1.3	176

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55	Mechanisms underlying the loss of mitochondrial membrane potential in glutamate excitotoxicity. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 953-964.	0.5	173
56	Cell competition with normal epithelial cells promotes apical extrusion of transformed cells through metabolicÂchanges. Nature Cell Biology, 2017, 19, 530-541.	4.6	172
57	Signalling via the reperfusion injury signalling kinase (RISK) pathway links closure of the mitochondrial permeability transition pore to cardioprotection. International Journal of Biochemistry and Cell Biology, 2006, 38, 414-419.	1.2	167
58	Glucocerebrosidase inhibition causes mitochondrial dysfunction and free radical damage. Neurochemistry International, 2013, 62, 1-7.	1.9	166
59	Mitochondrial quality control and communications with the nucleus are important in maintaining mitochondrial function and cell health. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 1254-1265.	1.1	164
60	Mitochondrial dysfunction and Purkinje cell loss in autosomal recessive spastic ataxia of Charlevoix-Saguenay (ARSACS). Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1661-1666.	3.3	160
61	Mitochondria, calcium-dependent neuronal death and neurodegenerative disease. Pflugers Archiv European Journal of Physiology, 2012, 464, 111-121.	1.3	158
62	Interrelationships between astrocyte function, oxidative stress and antioxidant status within the central nervous system. Progress in Neurobiology, 1997, 52, 261-281.	2.8	156
63	Î²-amyloid activates PARP causing astrocytic metabolic failure and neuronal death. Brain, 2011, 134, 1658-1672.	3.7	148
64	G2019S leucine-rich repeat kinase 2 causes uncoupling protein-mediated mitochondrial depolarization. Human Molecular Genetics, 2012, 21, 4201-4213.	1.4	147
65	Roles of mitochondria in human disease. Essays in Biochemistry, 2010, 47, 115-137.	2.1	147
66	The role of an astrocytic NADPH oxidase in the neurotoxicity of amyloid beta peptides. Philosophical Transactions of the Royal Society B: Biological Sciences, 2005, 360, 2309-2314.	1.8	138
67	Mitochondrial permeability transition pore as a target for cardioprotection in the human heart. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H237-H242.	1.5	135
68	Mitochondrial Permeability Transition: A Molecular Lesion with Multiple Drug Targets. Trends in Pharmacological Sciences, 2019, 40, 50-70.	4.0	135
69	PPARÎ³ and PGC-1Î± as Therapeutic Targets in Parkinsonâ€™s. Neurochemical Research, 2015, 40, 308-316.	1.6	134
70	Calcium signals and mitochondria at fertilisation. Seminars in Cell and Developmental Biology, 2006, 17, 314-323.	2.3	133
71	CLIC1 Function Is Required for Î²-Amyloid-Induced Generation of Reactive Oxygen Species by Microglia. Journal of Neuroscience, 2008, 28, 11488-11499.	1.7	133
72	Multiphoton Imaging Reveals Differences in Mitochondrial Function between Nephron Segments. Journal of the American Society of Nephrology: JASN, 2009, 20, 1293-1302.	3.0	132

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73	NRF2 Orchestrates the Metabolic Shift during Induced Pluripotent Stem Cell Reprogramming. Cell Reports, 2016, 14, 1883-1891.	2.9	132
74	Responses of type I cells dissociated from the rabbit carotid body to hypoxia.. Journal of Physiology, 1990, 428, 39-59.	1.3	130
75	The regulation of neuronal mitochondrial metabolism by calcium. Journal of Physiology, 2015, 593, 3447-3462.	1.3	130
76	Biophysical studies of the cellular elements of the rabbit carotid body. Neuroscience, 1988, 26, 291-311.	1.1	128
77	Exploration of the role of reactive oxygen species in glutamate neurotoxicity in rat hippocampal neurones in culture. Journal of Physiology, 2001, 531, 147-163.	1.3	128
78	Mitochondria as Targets for Nitric Oxideâ€"Induced Protection During Simulated Ischemia and Reoxygenation in Isolated Neonatal Cardiomyocytes. Circulation, 2001, 103, 2617-2623.	1.6	128
79	Mitochondria and calcium in health and disease. Cell Calcium, 2008, 44, 1-5.	1.1	128
80	Mitochondria, Ca2+ and neurodegenerative disease. European Journal of Pharmacology, 2002, 447, 177-188.	1.7	126
81	Quantitative imaging of glutathione in hippocampal neurons and glia in culture using monochlorobimane. Journal of Neuroscience Research, 2001, 66, 873-884.	1.3	120
82	IF1: setting the pace of the F1Fo-ATP synthase. Trends in Biochemical Sciences, 2009, 34, 343-350.	3.7	120
83	Guidelines on experimental methods to assess mitochondrial dysfunction in cellular models of neurodegenerative diseases. Cell Death and Differentiation, 2018, 25, 542-572.	5.0	120
84	IL-6 induces PI 3-kinase and nitric oxide-dependent protection and preserves mitochondrial function in cardiomyocytes. Cardiovascular Research, 2006, 69, 164-177.	1.8	118
85	Hypoxia-induced catecholamine secretion in isolated newborn rat adrenal chromaffin cells is mimicked by inhibition of mitochondrial respiration. Journal of Physiology, 1997, 504, 175-189.	1.3	115
86	Lack of Oxygen Deactivates Mitochondrial Complex I. Journal of Biological Chemistry, 2009, 284, 36055-36061.	1.6	114
87	Mitochondrial Dysfunction and Neurodegeneration in Lysosomal Storage Disorders. Trends in Molecular Medicine, 2017, 23, 116-134.	3.5	114
88	Effects of metabolic inhibition on the membrane properties of isolated mouse primary sensory neurones.. Journal of Physiology, 1990, 424, 387-409.	1.3	113
89	Effects of metabolic blockade on the regulation of intracellular calcium in dissociated mouse sensory neurones.. Journal of Physiology, 1990, 424, 411-426.	1.3	112
90	Interplay between mitochondria and cellular calcium signalling. Molecular and Cellular Biochemistry, 2004, 256, 209-218.	1.4	109

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91	The â€˜mitoflashâ€™ probe cpYFP does not respond to superoxide. Nature, 2014, 514, E12-E14.	13.7	109
92	Mechanism of neurodegeneration of neurons with mitochondrial DNA mutations. Brain, 2010, 133, 797-807.	3.7	108
93	The role of mitochondria in sepsis-induced cardiomyopathy. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2019, 1865, 759-773.	1.8	108
94	Deletion of the von Hippelâ€"Lindau gene in pancreatic Î² cells impairs glucose homeostasis in mice. Journal of Clinical Investigation, 2009, 119, 125-35.	3.9	108
95	Chloride intracellular channel 1 (CLIC1): Sensor and effector during oxidative stress. FEBS Letters, 2010, 584, 2076-2084.	1.3	102
96	Mitochondrial permeability transition pore: sensitivity to opening and mechanistic dependence on substrate availability. Scientific Reports, 2017, 7, 10492.	1.6	99
97	SCaMC-1 promotes cancer cell survival by desensitizing mitochondrial permeability transition via ATP/ADP-mediated matrix Ca2+ buffering. Cell Death and Differentiation, 2012, 19, 650-660.	5.0	96
98	Intracellular distribution of the fluorescent dye nonyl acridine orange responds to the mitochondrial membrane potential: implications for assays of cardiolipin and mitochondrial mass. Journal of Neurochemistry, 2002, 82, 224-233.	2.1	95
99	Excitotoxic mitochondrial depolarisation requires both calcium and nitric oxide in rat hippocampal neurons. Journal of Physiology, 1999, 520, 797-813.	1.3	94
100	Mitochondrial dynamics and quality control in Huntington's disease. Neurobiology of Disease, 2016, 90, 51-57.	2.1	90
101	Mitochondrial dysfunction is an important cause of neurological deficits in an inflammatory model of multiple sclerosis. Scientific Reports, 2016, 6, 33249.	1.6	89
102	Calcium signaling as a mediator of cell energy demand and a trigger to cell death. Annals of the New York Academy of Sciences, 2015, 1350, 107-116.	1.8	88
103	Alkalinity of Neutrophil Phagocytic Vacuoles Is Modulated by HVCN1 and Has Consequences for Myeloperoxidase Activity. PLoS ONE, 2015, 10, e0125906.	1.1	87
104	Expression of mutant SOD1^{G93A} in astrocytes induces functional deficits in motoneuron mitochondria. Journal of Neurochemistry, 2008, 107, 1271-1283.	2.1	86
105	Actions of ionomycin, 4-BrA23187 and a novel electrogenic Ca2+ ionophore on mitochondria in intact cells. Cell Calcium, 2003, 33, 101-112.	1.1	84
106	Calcium microdomains and oxidative stress. Cell Calcium, 2006, 40, 561-574.	1.1	84
107	IF1 limits the apoptotic-signalling cascade by preventing mitochondrial remodelling. Cell Death and Differentiation, 2013, 20, 686-697.	5.0	83
108	Membrane cholesterol content plays a key role in the neurotoxicity of Î²â€amyloid: implications for Alzheimerâ€™s disease. Aging Cell, 2011, 10, 595-603.	3.0	81

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109	Changes in [Ca2+]iand membrane currents during impaired mitochondrial metabolism in dissociated rat hippocampal neurons. Journal of Physiology, 1998, 507, 131-145.	1.3	78
110	FCCP is cardioprotective at concentrations that cause mitochondrial oxidation without detectable depolarisation. Cardiovascular Research, 2006, 72, 322-330.	1.8	78
111	Signal transducer and activator of transcription 2 deficiency is a novel disorder of mitochondrial fission. Brain, 2015, 138, 2834-2846.	3.7	78
112	Differential expression of membrane currents in dissociated mouse primary sensory neurons. Neuroscience, 1994, 63, 1041-1056.	1.1	75
113	A fluorimetric and amperometric study of calcium and secretion in isolated mouse pancreatic ?-cells. Pflugers Archiv European Journal of Physiology, 1995, 430, 808-818.	1.3	75
114	Crosstalk between Lysosomes and Mitochondria in Parkinson's Disease. Frontiers in Cell and Developmental Biology, 2017, 5, 110.	1.8	75
115	Effects of NO on mitochondrial function in cardiomyocytes: Pathophysiological relevance. Cardiovascular Research, 2006, 71, 10-21.	1.8	74
116	Impaired mitochondrial bioenergetics determines glutamate-induced delayed calcium deregulation in neurons. Biochimica Et Biophysica Acta - General Subjects, 2010, 1800, 297-304.	1.1	74
117	Mitochondrial â€˜flashesâ€™: a radical concept repHined. Trends in Cell Biology, 2012, 22, 503-508.	3.6	74
118	Impulse Conduction Increases Mitochondrial Transport in Adult Mammalian Peripheral Nerves In Vivo. PLoS Biology, 2013, 11, e1001754.	2.6	72
119	HDAC6 inhibition induces mitochondrial fusion, autophagic flux and reduces diffuse mutant huntingtin in striatal neurons. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2015, 1852, 2484-2493.	1.8	72
120	Defective quality control mechanisms and accumulation of damaged mitochondria link Gaucher and Parkinson diseases. Autophagy, 2013, 9, 1633-1635.	4.3	71
121	Endoplasmic reticulum and lysosomal Ca2+ stores are remodelled in GBA1-linked Parkinson disease patient fibroblasts. Cell Calcium, 2016, 59, 12-20.	1.1	71
122	Vascular Endothelial Growth Factor (VEGF)-D and VEGF-A Differentially Regulate KDR-mediated Signaling and Biological Function in Vascular Endothelial Cells. Journal of Biological Chemistry, 2004, 279, 36148-36157.	1.6	70
123	Dopamine Induced Neurodegeneration in a PINK1 Model of Parkinson's Disease. PLoS ONE, 2012, 7, e37564.	1.1	66
124	Activation of PARP by Oxidative Stress Induced by Î²-Amyloid: Implications for Alzheimerâ€™s Disease. Neurochemical Research, 2012, 37, 2589-2596.	1.6	66
125	Selective Inhibition of the Mitochondrial Permeability Transition Pore Protects against Neurodegeneration in Experimental Multiple Sclerosis. Journal of Biological Chemistry, 2016, 291, 4356-4373.	1.6	66
126	Protein CoAlation: a redox-regulated protein modification by coenzyme A in mammalian cells. Biochemical Journal, 2017, 474, 2489-2508.	1.7	65

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127	AMPK activation protects against diet-induced obesity through Ucp1-independent thermogenesis in subcutaneous white adipose tissue. Nature Metabolism, 2019, 1, 340-349.	5.1	65
128	Slow calcium waves and redox changes precede mitochondrial permeability transition pore opening in the intact heart during hypoxia and reoxygenation. Cardiovascular Research, 2012, 93, 445-453.	1.8	64
129	Targeting the proteostasis network in Huntingtonâ€™s disease. Ageing Research Reviews, 2019, 49, 92-103.	5.0	60
130	Mitochondrial ND5 Gene Variation Associated with Encephalomyopathy and Mitochondrial ATP Consumption. Journal of Biological Chemistry, 2007, 282, 36845-36852.	1.6	59
131	IF1, the endogenous regulator of the F1Fo-ATPsynthase, defines mitochondrial volume fraction in HeLa cells by regulating autophagy. Biochimica Et Biophysica Acta - Bioenergetics, 2009, 1787, 393-401.	0.5	58
132	Induction of mitochondrial oxidative stress in astrocytes by nitric oxide precedes disruption of energy metabolism. Journal of Neurochemistry, 2005, 95, 388-395.	2.1	57
133	PPARÎ³ activation rescues mitochondrial function from inhibition of complex I and loss of PINK1. Experimental Neurology, 2014, 253, 16-27.	2.0	56
134	Activated barrier crossing dynamics in the non-radiative decay of NADH and NADPH. Chemical Physics, 2013, 422, 184-194.	0.9	54
135	Regulation of Mitochondrial Morphogenesis by Annexin A6. PLoS ONE, 2013, 8, e53774.	1.1	53
136	Altered mechanical properties and intracellular calcium signaling in cardiomyocytes from annexin 6 nullâ€mutant mice. FASEB Journal, 2002, 16, 622-624.	0.2	52
137	Mechanisms of intracellular calcium regulation in adult astrocytes. Neuroscience, 1996, 71, 871-883.	1.1	49
138	Mitochondria mediated cell death in diabetes. Apoptosis: an International Journal on Programmed Cell Death, 2009, 14, 1405-1423.	2.2	49
139	Extracellular growth factors and mitogens cooperate to drive mitochondrial biogenesis. Journal of Cell Science, 2009, 122, 4516-4525.	1.2	48
140	Pathological consequences of MICU1 mutations on mitochondrial calcium signalling and bioenergetics. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 1009-1017.	1.9	47
141	Inhibition of NAADP signalling on reperfusion protects the heart by preventing lethal calcium oscillations via two-pore channel 1 and opening of the mitochondrial permeability transition pore. Cardiovascular Research, 2015, 108, 357-366.	1.8	44
142	Diazepam-induced loss of inhibitory synapses mediated by PLCÎ´/ Ca2+/calcineurin signalling downstream of GABAA receptors. Molecular Psychiatry, 2018, 23, 1851-1867.	4.1	44
143	MitoSegNet: Easy-to-use Deep Learning Segmentation for Analyzing Mitochondrial Morphology. IScience, 2020, 23, 101601.	1.9	44
144	Multiphoton Imaging of the Functioning Kidney. Journal of the American Society of Nephrology: JASN, 2011, 22, 1297-1304.	3.0	42

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145	RyR1 Deficiency in Congenital Myopathies Disrupts Excitation-Contraction Coupling. Human Mutation, 2013, 34, 986-996.	1.1	40
146	Assessing Mitochondrial Potential, Calcium, and Redox State in Isolated Mammalian Cells Using Confocal Microscopy. Methods in Molecular Biology, 2007, 372, 421-430.	0.4	39
147	Excitation of mouse motoneurones by GABA-mediated primary afferent depolarization. Brain Research, 1986, 379, 182-187.	1.1	37
148	Mitochondria: An Integrative Hub Coordinating Circadian Rhythms, Metabolism, the Microbiome, and Immunity. Frontiers in Cell and Developmental Biology, 2020, 8, 51.	1.8	37
149	Energy metabolism of adult astrocytes in vitro. Neuroscience, 1996, 71, 855-870.	1.1	36
150	Impaired mitochondrial homeostasis and neurodegeneration: towards new therapeutic targets?. Journal of Bioenergetics and Biomembranes, 2015, 47, 89-99.	1.0	36
151	Renal Tubular Cell Mitochondrial Dysfunction Occurs Despite Preserved Renal Oxygen Delivery in Experimental Septic Acute Kidney Injury. Critical Care Medicine, 2018, 46, e318-e325.	0.4	36
152	Monitoring exocytosis from single mast cells by fast voltammetry. Pflugers Archiv European Journal of Physiology, 1991, 419, 409-414.	1.3	34
153	The <scp>PERKs</scp> of mitochondria protection during stress: insights for <scp>PERK</scp> modulation in neurodegenerative and metabolic diseases. Biological Reviews, 2022, 97, 1737-1748.	4.7	33
154	Effects of Beauvericin on the Metabolic State and Ionic Homeostasis of Ventricular Myocytes of the Guinea Pig. Chemical Research in Toxicology, 2005, 18, 1661-1668.	1.7	30
155	The compound <scp>BTB</scp>06584 is an <scp>IF</scp>₁â€dependent selective inhibitor of the mitochondrial <scp>F</scp>₁<scp>F</scp>oâ€<scp>ATP</scp>ase. British Journal of Pharmacology, 2014, 171, 4193-4206.	2.7	30
156	Impaired Cellular Bioenergetics Causes Mitochondrial Calcium Handling Defects in MT-ND5 Mutant Cybrids. PLoS ONE, 2016, 11, e0154371.	1.1	28
157	Mitochondria modulate the spatio-temporal properties of intra- and intercellular Ca2+ signals in cochlear supporting cells. Cell Calcium, 2009, 46, 136-146.	1.1	27
158	Excitotoxicity Revisited: Mitochondria on the Verge of a Nervous Breakdown. Trends in Neurosciences, 2021, 44, 342-351.	4.2	27
159	Renal function and mitochondrial cytopathy (MC): more questions than answers?. QJM - Monthly Journal of the Association of Physicians, 2008, 101, 755-766.	0.2	25
160	Impaired cellular bioenergetics caused by GBA1 depletion sensitizes neurons to calcium overload. Cell Death and Differentiation, 2020, 27, 1588-1603.	5.0	24
161	The Legs at odd angles (Loa) Mutation in Cytoplasmic Dynein Ameliorates Mitochondrial Function in SOD1G93A Mouse Model for Motor Neuron Disease. Journal of Biological Chemistry, 2010, 285, 18627-18639.	1.6	23
162	Skeletal muscle dysfunction is associated with derangements in mitochondrial bioenergetics (but not) Tj ETQq0 0 0 rgBT /Overlock 10 T 2015, 308, E713-E725.	1.8	23

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163	Hypothermia protects brain mitochondrial function from hypoxemia in a murine model of sepsis. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 1955-1964.	2.4	23
164	Imaging Mitochondrial Calcium Signalling with Fluorescent Probes and Single or Two Photon Confocal Microscopy. Methods in Molecular Biology, 2012, 810, 219-234.	0.4	22
165	A key metabolic integrator, coenzyme A, modulates the activity of peroxiredoxin 5 via covalent modification. Molecular and Cellular Biochemistry, 2019, 461, 91-102.	1.4	22
166	Paradoxical neuronal hyperexcitability in a mouse model of mitochondrial pyruvate import deficiency. ELife, 2022, 11, .	2.8	21
167	The Intracellular Localization and Function of the ATP-Sensitive K+ Channel Subunit Kir6.1. Journal of Membrane Biology, 2010, 234, 137-147.	1.0	20
168	â€˜What nourishes me, destroys meâ€™: towards a new mitochondrial biology. Cell Death and Differentiation, 2001, 8, 963-966.	5.0	19
169	Identification of ER-000444793, a Cyclophilin D-independent inhibitor of mitochondrial permeability transition, using a high-throughput screen in cryopreserved mitochondria. Scientific Reports, 2016, 6, 37798.	1.6	19
170	Improved Survival in a Long-Term Rat Model of Sepsis Is Associated With Reduced Mitochondrial Calcium Uptake Despite Increased Energetic Demand. Critical Care Medicine, 2017, 45, e840-e848.	0.4	19
171	Constitutive activation of the PI3K-Akt-mTORC1 pathway sustains the m.3243â€‰Aâ€‰>â€‰G mtDNA mutation. Nature Communications, 2021, 12, 6409.	5.8	19
172	Polarized Two-Photon Absorption and Heterogeneous Fluorescence Dynamics in NAD(P)H. Journal of Physical Chemistry B, 2019, 123, 4705-4717.	1.2	18
173	The spectrum of neurodevelopmental, neuromuscular and neurodegenerative disorders due to defective autophagy. Autophagy, 2022, 18, 496-517.	4.3	18
174	Cellular glutathione content in the organ of Corti and its role during ototoxicity. Frontiers in Cellular Neuroscience, 2015, 9, 143.	1.8	17
175	A genetic modifier suggests that endurance exercise exacerbates Huntington's disease. Human Molecular Genetics, 2018, 27, 1723-1731.	1.4	17
176	Simultaneous Measurement of Mitochondrial Calcium and Mitochondrial Membrane Potential in Live Cells by Fluorescent Microscopy. Journal of Visualized Experiments, 2017, , .	0.2	16
177	Investigating the Mitochondrial Permeability Transition Pore in Disease Phenotypes and Drug Screening. Current Protocols in Pharmacology, 2019, 85, e59.	4.0	16
178	Mitochondrial IF₁preserves cristae structure to limit apoptotic cell death signaling. Cell Cycle, 2013, 12, 2530-2532.	1.3	15
179	Decellularized Cartilage Directs Chondrogenic Differentiation: Creation of a Fracture Callus Mimetic. Tissue Engineering - Part A, 2018, 24, 1364-1376.	1.6	15
180	Knockdown of aquaporin-8 induces mitochondrial dysfunction in 3T3-L1 cells. Biochemistry and Biophysics Reports, 2015, 4, 187-195.	0.7	14

#	Article	IF	Citations
181	Inositol trisphosphate receptor-mediated Ca2+ signalling stimulates mitochondrial function and gene expression in core myopathy patients. Human Molecular Genetics, 2018, 27, 2367-2382.	1.4	14
182	Measurements of Threshold of Mitochondrial Permeability Transition Pore Opening in Intact and Permeabilized Cells by Flash Photolysis of Caged Calcium. Methods in Molecular Biology, 2011, 793, 299-309.	0.4	13
183	Mitochondrial damage and â€œpluggingâ€•of transport selectively in myelinated, small-diameter axons are major early events in peripheral neuroinflammation. Journal of Neuroinflammation, 2018, 15, 61.	3.1	13
184	Modelling mitochondrial dysfunction in Alzheimer's disease using human induced pluripotent stem cells. World Journal of Stem Cells, 2019, 11, 236-253.	1.3	13
185	In Vivo Imaging of Flavoprotein Fluorescence During Hypoxia Reveals the Importance of Direct Arterial Oxygen Supply to Cerebral Cortex Tissue. Advances in Experimental Medicine and Biology, 2016, 876, 233-239.	0.8	13
186	Rewiring cell signalling pathways in pathogenic mtDNA mutations. Trends in Cell Biology, 2022, 32, 391-405.	3.6	13
187	Mild stress of caffeine increased mtDNA content in skeletal muscle cells: the interplay between Ca2+ transients and nitric oxide. Journal of Muscle Research and Cell Motility, 2012, 33, 327-337.	0.9	11
188	Assessment of Cellular Redox State Using NAD(P)H Fluorescence Intensity and Lifetime. Bio-protocol, 2017, 7, .	0.2	11
189	Modulation of the glutathione redox state in adult astrocytes. Biochemical Society Transactions, 1996, 24, 449S-449S.	1.6	10
190	Prostaglandin F2Î± potentiates the calcium dependent activation of mitochondrial metabolism in luteal cells. Cell Calcium, 2005, 37, 35-44.	1.1	10
191	Mitochondrial Signature in Human Monocytes and Resistance to Infection in C. elegans During Fumarate-Induced Innate Immune Training. Frontiers in Immunology, 2020, 11, 1715.	2.2	10
192	Introduction to Special Issue on Mitochondrial Redox Signaling in Health and Disease. Free Radical Biology and Medicine, 2016, 100, 1-4.	1.3	9
193	Investigating State Restriction in Fluorescent Protein FRET Using Time-Resolved Fluorescence and Anisotropy. Journal of Physical Chemistry C, 2017, 121, 1507-1514.	1.5	9
194	Imaging the Neutrophil Phagosome and Cytoplasm Using a Ratiometric pH Indicator. Journal of Visualized Experiments, 2017, , .	0.2	9
195	Multiphoton NAD(P)H FLIM reveals metabolic changes in individual cell types of the intact cochlea upon sensorineural hearing loss. Scientific Reports, 2019, 9, 18907.	1.6	9
196	Selective mitochondrial antioxidant MitoTEMPO reduces renal dysfunction and systemic inflammation in experimental sepsis in rats. British Journal of Anaesthesia, 2021, 127, 577-586.	1.5	9
197	Adaptation to heat of cardiomyoblasts in culture protects them against heat shock: role of nitric oxide and heat shock proteins. Biochemistry (Moscow), 2003, 68, 816-821.	0.7	8
198	Metabolic Profiling of Live Cancer Tissues Using NAD(P)H Fluorescence Lifetime Imaging. Methods in Molecular Biology, 2019, 1928, 365-387.	0.4	8

#	Article	IF	Citations
199	Imaging Mitochondrial Calcium Fluxes with Fluorescent Probes and Single- or Two-Photon Confocal Microscopy. Methods in Molecular Biology, 2018, 1782, 171-186.	0.4	6
200	Direct and cross-protective effects of heat adaptation in cultured cells. Bulletin of Experimental Biology and Medicine, 2003, 135, 127-129.	0.3	5
201	Albumin Uptake in OK Cells Exposed to Rotenone: A Model for Studying the Effects of Mitochondrial Dysfunction on Endocytosis in the Proximal Tubule?. Nephron Physiology, 2010, 115, p9-p19.	1.5	5
202	Allosteric activation of Hsp70 reduces mutant huntingtin levels, the clustering of N-terminal fragments, and their nuclear accumulation. Life Sciences, 2021, 285, 120009.	2.0	5
203	The <scp>APP</scp>swe/<scp>PS</scp>1A246E mutations in an astrocytic cell line leads to increased vulnerability to oxygen and glucose deprivation, Ca²⁺ dysregulation, and mitochondrial abnormalities. Journal of Neurochemistry, 2018, 145, 170-182.	2.1	4
204	Activation of the Integrated Stress Response and ER Stress Protect from Fluorizoline-Induced Apoptosis in HEK293T and U2OS Cell Lines. International Journal of Molecular Sciences, 2021, 22, 6117.	1.8	4
205	A Plate Reader-Based Measurement of the Cellular ROS Production Using Dihydroethidium and MitoSOX. Methods in Molecular Biology, 2022, , 333-337.	0.4	4
206	Separation of NADPH and NADH Fluorescence Emission in Live Cells using Flim. Biophysical Journal, 2012, 102, 196a.	0.2	3
207	Characterizing Metabolic States Using Fluorescence Lifetime Imaging Microscopy (FLIM) of NAD(P)H. Neuromethods, 2017, , 133-150.	0.2	3
208	Functional Imaging of Mitochondria Within Cells. , 2001, , 88-111.		3
209	Mitochondrial Bioenergetics Assessed by Functional Fluorescence Dyes. Neuromethods, 2014, , 161-176.	0.2	2
210	Assessing the Redox Status of Mitochondria Through the NADH/FAD2+ Ratio in Intact Cells. Methods in Molecular Biology, 2022, , 313-318.	0.4	2
211	Fantastic beasts and how to find themâ€"Molecular identification of the mitochondrial ATP-sensitive potassium channel. Cell Calcium, 2019, 84, 102100.	1.1	1
212	Chair's Introduction. Novartis Foundation Symposium, 0, , 1-1.	1.2	1
213	The anti-ischemic effect of low-dose FCCP involves mitochondrial oxidation without detectable depolarisation. Journal of Molecular and Cellular Cardiology, 2002, 34, A13.	0.9	0
214	Antiapoptotic effect of heat adaptation in cultured cells. Bulletin of Experimental Biology and Medicine, 2003, 135, 123-126.	0.3	0
215	Using multiphoton microscopy to examine the response of the heart to ischaemia and reperfusion injury. Journal of Molecular and Cellular Cardiology, 2008, 44, 778.	0.9	0
216	Extracellular growth factors and mitogens cooperate to drive mitochondrial biogenesis. Journal of Cell Science, 2009, 122, 4584-4584.	1.2	0

#	Article	IF	Citations
217	Mitochondria as organizers of the cellular Ca2+ Signaling Network. , 2010, , 963-972.		0
218	Mitochondria and Calcium Signaling, Point and Counterpoint. , 2003, , 73-77.		0
219	Mitochondrial Channels as Potential Targets for Pharmacological Strategies in Brain Ischemia. , 2009, , 27-45.		0
220	A39â€…Triad of neuronal vulnerability in huntingtonâ€™s disease: huntingtin proteostasis, inclusion body formation and mitochondrial function. , 2018, , .		0