

Michael R Duchen

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212
papers

26,495
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90
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161
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236
ext. papers

30,041
ext. citations

7.8
avg, IF

7.24
L-index

#	Paper	IF	Citations
212	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). <i>Autophagy</i> , 2016 , 12, 1-222	10.2	3838
211	Ischaemic accumulation of succinate controls reperfusion injury through mitochondrial ROS. <i>Nature</i> , 2014 , 515, 431-435	50.4	1360
210	Mitochondria and calcium: from cell signalling to cell death. <i>Journal of Physiology</i> , 2000 , 529 Pt 1, 57-68	3.9	839
209	Mitochondria in health and disease: perspectives on a new mitochondrial biology. <i>Molecular Aspects of Medicine</i> , 2004 , 25, 365-451	16.7	536
208	PINK1-associated Parkinson disease is caused by neuronal vulnerability to calcium-induced cell death. <i>Molecular Cell</i> , 2009 , 33, 627-38	17.6	507
207	Contributions of mitochondria to animal physiology: from homeostatic sensor to calcium signalling and cell death. <i>Journal of Physiology</i> , 1999 , 516 (Pt 1), 1-17	3.9	482
206	Three distinct mechanisms generate oxygen free radicals in neurons and contribute to cell death during anoxia and reoxygenation. <i>Journal of Neuroscience</i> , 2007 , 27, 1129-38	6.6	477
205	Beta-amyloid peptides induce mitochondrial dysfunction and oxidative stress in astrocytes and death of neurons through activation of NADPH oxidase. <i>Journal of Neuroscience</i> , 2004 , 24, 565-75	6.6	459
204	Unexpected low-dose toxicity of the universal solvent DMSO. <i>FASEB Journal</i> , 2014 , 28, 1317-30	0.9	349
203	Cellular and molecular mechanisms of mitochondrial function. <i>Best Practice and Research in Clinical Endocrinology and Metabolism</i> , 2012 , 26, 711-23	6.5	334
202	The role of mitochondrial function in the oocyte and embryo. <i>Current Topics in Developmental Biology</i> , 2007 , 77, 21-49	5.3	332
201	The effect of nitric oxide on cell respiration: A key to understanding its role in cell survival or death. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000 , 97, 14602-7	11.5	319
200	Roles of mitochondria in health and disease. <i>Diabetes</i> , 2004 , 53 Suppl 1, S96-102	0.9	318
199	Maternal diet-induced obesity alters mitochondrial activity and redox status in mouse oocytes and zygotes. <i>PLoS ONE</i> , 2010 , 5, e10074	3.7	316
198	Separating NADH and NADPH fluorescence in live cells and tissues using FLIM. <i>Nature Communications</i> , 2014 , 5, 3936	17.4	304
197	Inhibiting mitochondrial permeability transition pore opening at reperfusion protects against ischaemia-reperfusion injury. <i>Cardiovascular Research</i> , 2003 , 60, 617-25	9.9	297
196	Mitochondria: the hub of cellular Ca ²⁺ signaling. <i>Physiology</i> , 2008 , 23, 84-94	9.8	296

195	Transient mitochondrial permeability transition pore opening mediates preconditioning-induced protection. <i>Circulation</i> , 2004 , 109, 1714-7	16.7	296
194	Endothelial mitochondria: contributing to vascular function and disease. <i>Circulation Research</i> , 2007 , 100, 1128-41	15.7	293
193	Mitochondria and Ca(2+)in cell physiology and pathophysiology. <i>Cell Calcium</i> , 2000 , 28, 339-48	4	264
192	Mitochondria exert a negative feedback on the propagation of intracellular Ca ²⁺ waves in rat cortical astrocytes. <i>Journal of Cell Biology</i> , 1999 , 145, 795-808	7.3	262
191	Changes in intracellular calcium and glutathione in astrocytes as the primary mechanism of amyloid neurotoxicity. <i>Journal of Neuroscience</i> , 2003 , 23, 5088-95	6.6	258
190	PINK1 is necessary for long term survival and mitochondrial function in human dopaminergic neurons. <i>PLoS ONE</i> , 2008 , 3, e2455	3.7	252
189	Loss-of-function mutations in MICU1 cause a brain and muscle disorder linked to primary alterations in mitochondrial calcium signaling. <i>Nature Genetics</i> , 2014 , 46, 188-93	36.3	242
188	Promoting the clearance of neurotoxic proteins in neurodegenerative disorders of ageing. <i>Nature Reviews Drug Discovery</i> , 2018 , 17, 660-688	64.1	232
187	Mitochondria and quality control defects in a mouse model of Gaucher disease--links to Parkinson@ disease. <i>Cell Metabolism</i> , 2013 , 17, 941-953	24.6	228
186	On the involvement of a cyclosporin A sensitive mitochondrial pore in myocardial reperfusion injury. <i>Cardiovascular Research</i> , 1993 , 27, 1790-4	9.9	228
185	Transient mitochondrial depolarizations reflect focal sarcoplasmic reticular calcium release in single rat cardiomyocytes. <i>Journal of Cell Biology</i> , 1998 , 142, 975-88	7.3	220
184	Relative mitochondrial membrane potential and [Ca ²⁺] _i in type I cells isolated from the rabbit carotid body. <i>Journal of Physiology</i> , 1992 , 450, 33-61	3.9	212
183	Reversal of Mitochondrial Transhydrogenase Causes Oxidative Stress in Heart Failure. <i>Cell Metabolism</i> , 2015 , 22, 472-84	24.6	206
182	Regulation of mitochondrial structure and function by the F1Fo-ATPase inhibitor protein, IF1. <i>Cell Metabolism</i> , 2008 , 8, 13-25	24.6	206
181	Mitochondrial oxidative stress and cell death in astrocytes Requirement for stored Ca ²⁺ and sustained opening of the permeability transition pore. <i>Journal of Cell Science</i> , 2002 , 115, 1175-1188	5.3	203
180	Expression and modulation of an NADPH oxidase in mammalian astrocytes. <i>Journal of Neuroscience</i> , 2005 , 25, 9176-84	6.6	198
179	Flirting in little space: the ER/mitochondria Ca ²⁺ liaison. <i>Science Signaling</i> , 2004 , 2004, re1	8.8	193
178	Mitochondrial oxidative stress and cell death in astrocytes--requirement for stored Ca ²⁺ and sustained opening of the permeability transition pore. <i>Journal of Cell Science</i> , 2002 , 115, 1175-88	5.3	183

177	Preconditioning protects by inhibiting the mitochondrial permeability transition. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2004 , 287, H841-9	5.2	182
176	Investigating mitochondrial redox state using NADH and NADPH autofluorescence. <i>Free Radical Biology and Medicine</i> , 2016 , 100, 53-65	7.8	179
175	Imaging mitochondrial function in intact cells. <i>Methods in Enzymology</i> , 2003 , 361, 353-89	1.7	178
174	Beta-amyloid fragment 25-35 causes mitochondrial dysfunction in primary cortical neurons. <i>Neurobiology of Disease</i> , 2002 , 10, 258-67	7.5	175
173	Sperm-triggered [Ca ²⁺] oscillations and Ca ²⁺ homeostasis in the mouse egg have an absolute requirement for mitochondrial ATP production. <i>Development (Cambridge)</i> , 2004 , 131, 3057-67	6.6	174
172	Mitochondrial function in type I cells isolated from rabbit arterial chemoreceptors. <i>Journal of Physiology</i> , 1992 , 450, 13-31	3.9	174
171	Toxicity of amyloid beta peptide: tales of calcium, mitochondria, and oxidative stress. <i>Neurochemical Research</i> , 2004 , 29, 637-50	4.6	169
170	Mitochondrial function and redox state in mammalian embryos. <i>Seminars in Cell and Developmental Biology</i> , 2009 , 20, 346-53	7.5	168
169	Mitochondrial uncoupling, with low concentration FCCP, induces ROS-dependent cardioprotection independent of KATP channel activation. <i>Cardiovascular Research</i> , 2006 , 72, 313-21	9.9	165
168	Targeted polyphosphatase expression alters mitochondrial metabolism and inhibits calcium-dependent cell death. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18091-6	11.5	165
167	Glutamate-induced mitochondrial depolarisation and perturbation of calcium homeostasis in cultured rat hippocampal neurones. <i>Journal of Physiology</i> , 1999 , 519 Pt 2, 451-66	3.9	164
166	Regulation of redox metabolism in the mouse oocyte and embryo. <i>Development (Cambridge)</i> , 2007 , 134, 455-65	6.6	161
165	The large-conductance Ca ²⁺ -activated K ⁺ channel is essential for innate immunity. <i>Nature</i> , 2004 , 427, 853-8	50.4	161
164	Calcium signals induced by amyloid beta peptide and their consequences in neurons and astrocytes in culture. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2004 , 1742, 81-7	4.9	159
163	The mitochondrial calcium uniporter regulates breast cancer progression via HIF-1. <i>EMBO Molecular Medicine</i> , 2016 , 8, 569-85	12	155
162	Sulforaphane preconditioning of the Nrf2/HO-1 defense pathway protects the cerebral vasculature against blood-brain barrier disruption and neurological deficits in stroke. <i>Free Radical Biology and Medicine</i> , 2013 , 65, 1012-1022	7.8	154
161	Signalling via the reperfusion injury signalling kinase (RISK) pathway links closure of the mitochondrial permeability transition pore to cardioprotection. <i>International Journal of Biochemistry and Cell Biology</i> , 2006 , 38, 414-9	5.6	152
160	Glucocerebrosidase inhibition causes mitochondrial dysfunction and free radical damage. <i>Neurochemistry International</i> , 2013 , 62, 1-7	4.4	142

159	Mechanisms underlying the loss of mitochondrial membrane potential in glutamate excitotoxicity. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2008 , 1777, 953-64	4.6	142
158	Three-Dimensional Human iPSC-Derived Artificial Skeletal Muscles Model Muscular Dystrophies and Enable Multilineage Tissue Engineering. <i>Cell Reports</i> , 2018 , 23, 899-908	10.6	141
157	Interrelationships between astrocyte function, oxidative stress and antioxidant status within the central nervous system. <i>Progress in Neurobiology</i> , 1997 , 52, 261-81	10.9	140
156	Beta-amyloid activates PARP causing astrocytic metabolic failure and neuronal death. <i>Brain</i> , 2011 , 134, 1658-72	11.2	132
155	G2019S leucine-rich repeat kinase 2 causes uncoupling protein-mediated mitochondrial depolarization. <i>Human Molecular Genetics</i> , 2012 , 21, 4201-13	5.6	128
154	Mitochondria, calcium-dependent neuronal death and neurodegenerative disease. <i>Pflugers Archiv European Journal of Physiology</i> , 2012 , 464, 111-21	4.6	127
153	Mitochondria as targets for nitric oxide-induced protection during simulated ischemia and reoxygenation in isolated neonatal cardiomyocytes. <i>Circulation</i> , 2001 , 103, 2617-23	16.7	123
152	Biophysical studies of the cellular elements of the rabbit carotid body. <i>Neuroscience</i> , 1988 , 26, 291-311	3.9	122
151	Mitochondrial quality control and communications with the nucleus are important in maintaining mitochondrial function and cell health. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014 , 1840, 1254-65	4.6	121
150	Mitochondrial dysfunction and Purkinje cell loss in autosomal recessive spastic ataxia of Charlevoix-Saguenay (ARSACS). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 1661-6	11.5	120
149	Roles of mitochondria in human disease. <i>Essays in Biochemistry</i> , 2010 , 47, 115-37	7.6	119
148	The role of an astrocytic NADPH oxidase in the neurotoxicity of amyloid beta peptides. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2005 , 360, 2309-14	5.8	117
147	Responses of type I cells dissociated from the rabbit carotid body to hypoxia. <i>Journal of Physiology</i> , 1990 , 428, 39-59	3.9	117
146	Mitochondria and calcium in health and disease. <i>Cell Calcium</i> , 2008 , 44, 1-5	4	116
145	Exploration of the role of reactive oxygen species in glutamate neurotoxicity in rat hippocampal neurones in culture. <i>Journal of Physiology</i> , 2001 , 531, 147-63	3.9	116
144	Quantitative imaging of glutathione in hippocampal neurons and glia in culture using monochlorobimane. <i>Journal of Neuroscience Research</i> , 2001 , 66, 873-84	4.4	113
143	Cell competition with normal epithelial cells promotes apical extrusion of transformed cells through metabolic changes. <i>Nature Cell Biology</i> , 2017 , 19, 530-541	23.4	112
142	Mitochondrial permeability transition pore as a target for cardioprotection in the human heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005 , 289, H237-42	5.2	112

141	PPAR α is a therapeutic target to rescue mitochondrial function in neurological disease. <i>Free Radical Biology and Medicine</i> , 2016 , 100, 153-163	7.8	111
140	Calcium signals and mitochondria at fertilisation. <i>Seminars in Cell and Developmental Biology</i> , 2006 , 17, 314-23	7.5	107
139	Multiphoton imaging reveals differences in mitochondrial function between nephron segments. <i>Journal of the American Society of Nephrology: JASN</i> , 2009 , 20, 1293-302	12.7	106
138	Effects of metabolic inhibition on the membrane properties of isolated mouse primary sensory neurones. <i>Journal of Physiology</i> , 1990 , 424, 387-409	3.9	104
137	The mitochondria probe cpYFP does not respond to superoxide. <i>Nature</i> , 2014 , 514, E12-4	50.4	103
136	Hypoxia-induced catecholamine secretion in isolated newborn rat adrenal chromaffin cells is mimicked by inhibition of mitochondrial respiration. <i>Journal of Physiology</i> , 1997 , 504 (Pt 1), 175-89	3.9	103
135	Diabetes causes marked inhibition of mitochondrial metabolism in pancreatic β -cells. <i>Nature Communications</i> , 2019 , 10, 2474	17.4	102
134	IF(1): setting the pace of the F(1)F(o)-ATP synthase. <i>Trends in Biochemical Sciences</i> , 2009 , 34, 343-50	10.3	102
133	Mitochondria, Ca $^{2+}$ and neurodegenerative disease. <i>European Journal of Pharmacology</i> , 2002 , 447, 177-83	8.3	102
132	Lack of oxygen deactivates mitochondrial complex I: implications for ischemic injury?. <i>Journal of Biological Chemistry</i> , 2009 , 284, 36055-36061	5.4	101
131	The regulation of neuronal mitochondrial metabolism by calcium. <i>Journal of Physiology</i> , 2015 , 593, 3447-53	6.3	97
130	NRF2 Orchestrates the Metabolic Shift during Induced Pluripotent Stem Cell Reprogramming. <i>Cell Reports</i> , 2016 , 14, 1883-91	10.6	97
129	Effects of metabolic blockade on the regulation of intracellular calcium in dissociated mouse sensory neurones. <i>Journal of Physiology</i> , 1990 , 424, 411-26	3.9	96
128	Deletion of the von Hippel-Lindau gene in pancreatic beta cells impairs glucose homeostasis in mice. <i>Journal of Clinical Investigation</i> , 2009 , 119, 125-35	15.9	93
127	Mitochondrial Permeability Transition: A Molecular Lesion with Multiple Drug Targets. <i>Trends in Pharmacological Sciences</i> , 2019 , 40, 50-70	13.2	93
126	CLIC1 function is required for beta-amyloid-induced generation of reactive oxygen species by microglia. <i>Journal of Neuroscience</i> , 2008 , 28, 11488-99	6.6	92
125	PPAR α and PGC-1 α as therapeutic targets in Parkinson's disease. <i>Neurochemical Research</i> , 2015 , 40, 308-16	4.6	91
124	Mechanism of neurodegeneration of neurons with mitochondrial DNA mutations. <i>Brain</i> , 2010 , 133, 797-807	7.2	91

123	IL-6 induces PI 3-kinase and nitric oxide-dependent protection and preserves mitochondrial function in cardiomyocytes. <i>Cardiovascular Research</i> , 2006 , 69, 164-77	9.9	91
122	Interplay between mitochondria and cellular calcium signalling. <i>Molecular and Cellular Biochemistry</i> , 2004 , 256-257, 209-18	4.2	90
121	Intracellular distribution of the fluorescent dye nonyl acridine orange responds to the mitochondrial membrane potential: implications for assays of cardiolipin and mitochondrial mass. <i>Journal of Neurochemistry</i> , 2002 , 82, 224-33	6	85
120	Expression of mutant SOD1 in astrocytes induces functional deficits in motoneuron mitochondria. <i>Journal of Neurochemistry</i> , 2008 , 107, 1271-83	6	81
119	SCaMC-1 promotes cancer cell survival by desensitizing mitochondrial permeability transition via ATP/ADP-mediated matrix Ca(2+) buffering. <i>Cell Death and Differentiation</i> , 2012 , 19, 650-60	12.7	79
118	Chloride intracellular channel 1 (CLIC1): Sensor and effector during oxidative stress. <i>FEBS Letters</i> , 2010 , 584, 2076-84	3.8	79
117	Excitotoxic mitochondrial depolarisation requires both calcium and nitric oxide in rat hippocampal neurons. <i>Journal of Physiology</i> , 1999 , 520 Pt 3, 797-813	3.9	79
116	Mitochondrial permeability transition pore: sensitivity to opening and mechanistic dependence on substrate availability. <i>Scientific Reports</i> , 2017 , 7, 10492	4.9	78
115	Mitochondrial dynamics and quality control in HuntingtonQ disease. <i>Neurobiology of Disease</i> , 2016 , 90, 51-7	7.5	76
114	Calcium microdomains and oxidative stress. <i>Cell Calcium</i> , 2006 , 40, 561-74	4	75
113	Mitochondrial Dysfunction and Neurodegeneration in Lysosomal Storage Disorders. <i>Trends in Molecular Medicine</i> , 2017 , 23, 116-134	11.5	74
112	Actions of ionomycin, 4-BrA23187 and a novel electrogenic Ca2+ ionophore on mitochondria in intact cells. <i>Cell Calcium</i> , 2003 , 33, 101-12	4	74
111	Calcium signaling as a mediator of cell energy demand and a trigger to cell death. <i>Annals of the New York Academy of Sciences</i> , 2015 , 1350, 107-16	6.5	72
110	Mitochondrial flashesQa radical concept repHined. <i>Trends in Cell Biology</i> , 2012 , 22, 503-8	18.3	70
109	Changes in [Ca2+]i and membrane currents during impaired mitochondrial metabolism in dissociated rat hippocampal neurons. <i>Journal of Physiology</i> , 1998 , 507 (Pt 1), 131-45	3.9	70
108	Membrane cholesterol content plays a key role in the neurotoxicity of Aamyloid: implications for AlzheimerQ disease. <i>Aging Cell</i> , 2011 , 10, 595-603	9.9	67
107	Differential expression of membrane currents in dissociated mouse primary sensory neurons. <i>Neuroscience</i> , 1994 , 63, 1041-56	3.9	67
106	IF1 limits the apoptotic-signalling cascade by preventing mitochondrial remodelling. <i>Cell Death and Differentiation</i> , 2013 , 20, 686-97	12.7	65

105	FCCP is cardioprotective at concentrations that cause mitochondrial oxidation without detectable depolarisation. <i>Cardiovascular Research</i> , 2006 , 72, 322-30	9.9	65
104	Guidelines on experimental methods to assess mitochondrial dysfunction in cellular models of neurodegenerative diseases. <i>Cell Death and Differentiation</i> , 2018 , 25, 542-572	12.7	64
103	Defective quality control mechanisms and accumulation of damaged mitochondria link Gaucher and Parkinson diseases. <i>Autophagy</i> , 2013 , 9, 1633-5	10.2	63
102	Vascular endothelial growth factor (VEGF)-D and VEGF-A differentially regulate KDR-mediated signaling and biological function in vascular endothelial cells. <i>Journal of Biological Chemistry</i> , 2004 , 279, 36148-57	5.4	63
101	Mitochondrial dysfunction is an important cause of neurological deficits in an inflammatory model of multiple sclerosis. <i>Scientific Reports</i> , 2016 , 6, 33249	4.9	62
100	Impaired mitochondrial bioenergetics determines glutamate-induced delayed calcium deregulation in neurons. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2010 , 1800, 297-304	4	62
99	A fluorimetric and amperometric study of calcium and secretion in isolated mouse pancreatic beta-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1995 , 430, 808-18	4.6	62
98	Impulse conduction increases mitochondrial transport in adult mammalian peripheral nerves in vivo. <i>PLoS Biology</i> , 2013 , 11, e1001754	9.7	61
97	Effects of NO on mitochondrial function in cardiomyocytes: Pathophysiological relevance. <i>Cardiovascular Research</i> , 2006 , 71, 10-21	9.9	61
96	Alkalinity of neutrophil phagocytic vacuoles is modulated by HVCN1 and has consequences for myeloperoxidase activity. <i>PLoS ONE</i> , 2015 , 10, e0125906	3.7	60
95	Signal transducer and activator of transcription 2 deficiency is a novel disorder of mitochondrial fission. <i>Brain</i> , 2015 , 138, 2834-46	11.2	59
94	HDAC6 inhibition induces mitochondrial fusion, autophagic flux and reduces diffuse mutant huntingtin in striatal neurons. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2015 , 1852, 2484-93	6.9	59
93	Slow calcium waves and redox changes precede mitochondrial permeability transition pore opening in the intact heart during hypoxia and reoxygenation. <i>Cardiovascular Research</i> , 2012 , 93, 445-53	9.9	59
92	Dopamine induced neurodegeneration in a PINK1 model of Parkinson's disease. <i>PLoS ONE</i> , 2012 , 7, e37564	5.7	58
91	The role of mitochondria in sepsis-induced cardiomyopathy. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2019 , 1865, 759-773	6.9	58
90	Activation of PARP by oxidative stress induced by β -amyloid: implications for Alzheimer's disease. <i>Neurochemical Research</i> , 2012 , 37, 2589-96	4.6	55
89	Protein CoAlation: a redox-regulated protein modification by coenzyme A in mammalian cells. <i>Biochemical Journal</i> , 2017 , 474, 2489-2508	3.8	53
88	Mitochondrial ND5 gene variation associated with encephalomyopathy and mitochondrial ATP consumption. <i>Journal of Biological Chemistry</i> , 2007 , 282, 36845-52	5.4	53

87	IF1, the endogenous regulator of the F(1)F(o)-ATPsynthase, defines mitochondrial volume fraction in HeLa cells by regulating autophagy. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2009 , 1787, 393-401	4.6	52
86	Induction of mitochondrial oxidative stress in astrocytes by nitric oxide precedes disruption of energy metabolism. <i>Journal of Neurochemistry</i> , 2005 , 95, 388-95	6	51
85	Endoplasmic reticulum and lysosomal Ca ²⁺ stores are remodelled in GBA1-linked Parkinson disease patient fibroblasts. <i>Cell Calcium</i> , 2016 , 59, 12-20	4	50
84	Crosstalk between Lysosomes and Mitochondria in Parkinson's Disease. <i>Frontiers in Cell and Developmental Biology</i> , 2017 , 5, 110	5.7	50
83	Selective Inhibition of the Mitochondrial Permeability Transition Pore Protects against Neurodegeneration in Experimental Multiple Sclerosis. <i>Journal of Biological Chemistry</i> , 2016 , 291, 4356-73	5.4	48
82	Mechanisms of intracellular calcium regulation in adult astrocytes. <i>Neuroscience</i> , 1996 , 71, 871-83	3.9	47
81	Altered mechanical properties and intracellular calcium signaling in cardiomyocytes from annexin 6 null-mutant mice. <i>FASEB Journal</i> , 2002 , 16, 622-4	0.9	46
80	Mitochondria mediated cell death in diabetes. <i>Apoptosis: an International Journal on Programmed Cell Death</i> , 2009 , 14, 1405-23	5.4	45
79	PPAR α activation rescues mitochondrial function from inhibition of complex I and loss of PINK1. <i>Experimental Neurology</i> , 2014 , 253, 16-27	5.7	44
78	Extracellular growth factors and mitogens cooperate to drive mitochondrial biogenesis. <i>Journal of Cell Science</i> , 2009 , 122, 4516-25	5.3	42
77	Regulation of mitochondrial morphogenesis by annexin A6. <i>PLoS ONE</i> , 2013 , 8, e53774	3.7	40
76	Multiphoton imaging of the functioning kidney. <i>Journal of the American Society of Nephrology: JASN</i> , 2011 , 22, 1297-304	12.7	39
75	Activated barrier crossing dynamics in the non-radiative decay of NADH and NADPH. <i>Chemical Physics</i> , 2013 , 422, 184-194	2.3	38
74	AMPK activation protects against diet induced obesity through Ucp1-independent thermogenesis in subcutaneous white adipose tissue. <i>Nature Metabolism</i> , 2019 , 1, 340-349	14.6	35
73	Assessing mitochondrial potential, calcium, and redox state in isolated mammalian cells using confocal microscopy. <i>Methods in Molecular Biology</i> , 2007 , 372, 421-30	1.4	35
72	Energy metabolism of adult astrocytes in vitro. <i>Neuroscience</i> , 1996 , 71, 855-70	3.9	35
71	Excitation of mouse motoneurons by GABA-mediated primary afferent depolarization. <i>Brain Research</i> , 1986 , 379, 182-7	3.7	34
70	Targeting the proteostasis network in Huntington's disease. <i>Ageing Research Reviews</i> , 2019 , 49, 92-103	12	34

69	RyR1 deficiency in congenital myopathies disrupts excitation-contraction coupling. <i>Human Mutation</i> , 2013 , 34, 986-96	4.7	33
68	Pathological consequences of MICU1 mutations on mitochondrial calcium signalling and bioenergetics. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2017 , 1864, 1009-1017	4.9	32
67	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. <i>Cardiovascular Research</i> , 2015 , 108, 357-66	9.9	29
66	Diazepam-induced loss of inhibitory synapses mediated by PLC β Ca/calceineurin signalling downstream of GABAA receptors. <i>Molecular Psychiatry</i> , 2018 , 23, 1851-1867	15.1	29
65	Impaired mitochondrial homeostasis and neurodegeneration: towards new therapeutic targets?. <i>Journal of Bioenergetics and Biomembranes</i> , 2015 , 47, 89-99	3.7	28
64	Renal Tubular Cell Mitochondrial Dysfunction Occurs Despite Preserved Renal Oxygen Delivery in Experimental Septic Acute Kidney Injury. <i>Critical Care Medicine</i> , 2018 , 46, e318-e325	1.4	27
63	Monitoring exocytosis from single mast cells by fast voltammetry. <i>Pflugers Archiv European Journal of Physiology</i> , 1991 , 419, 409-14	4.6	27
62	Effects of beauvericin on the metabolic state and ionic homeostasis of ventricular myocytes of the guinea pig. <i>Chemical Research in Toxicology</i> , 2005 , 18, 1661-8	4	25
61	Renal function and mitochondrial cytopathy (MC): more questions than answers?. <i>QJM - Monthly Journal of the Association of Physicians</i> , 2008 , 101, 755-66	2.7	24
60	Mitochondria modulate the spatio-temporal properties of intra- and intercellular Ca ²⁺ signals in cochlear supporting cells. <i>Cell Calcium</i> , 2009 , 46, 136-46	4	23
59	Skeletal muscle dysfunction is associated with derangements in mitochondrial bioenergetics (but not UCP3) in a rodent model of sepsis. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2015 , 308, E713-25	6	20
58	The legs at odd angles (Loa) mutation in cytoplasmic dynein ameliorates mitochondrial function in SOD1G93A mouse model for motor neuron disease. <i>Journal of Biological Chemistry</i> , 2010 , 285, 18627-39 ^{5.4}	5.4	20
57	Mitochondria: An Integrative Hub Coordinating Circadian Rhythms, Metabolism, the Microbiome, and Immunity. <i>Frontiers in Cell and Developmental Biology</i> , 2020 , 8, 51	5.7	19
56	Imaging mitochondrial calcium signalling with fluorescent probes and single or two photon confocal microscopy. <i>Methods in Molecular Biology</i> , 2012 , 810, 219-34	1.4	19
55	The intracellular localization and function of the ATP-sensitive K ⁺ channel subunit Kir6.1. <i>Journal of Membrane Biology</i> , 2010 , 234, 137-47	2.3	19
54	The compound BTB06584 is an IF1 -dependent selective inhibitor of the mitochondrial F1 Fo-ATPase. <i>British Journal of Pharmacology</i> , 2014 , 171, 4193-206	8.6	18
53	Hypothermia protects brain mitochondrial function from hypoxemia in a murine model of sepsis. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2016 , 36, 1955-1964	7.3	17
52	Impaired Cellular Bioenergetics Causes Mitochondrial Calcium Handling Defects in MT-ND5 Mutant Cybrids. <i>PLoS ONE</i> , 2016 , 11, e0154371	3.7	17

51	Impaired cellular bioenergetics caused by GBA1 depletion sensitizes neurons to calcium overload. <i>Cell Death and Differentiation</i> , 2020 , 27, 1588-1603	12.7	15
50	Identification of ER-000444793, a Cyclophilin D-independent inhibitor of mitochondrial permeability transition, using a high-throughput screen in cryopreserved mitochondria. <i>Scientific Reports</i> , 2016 , 6, 37798	4.9	14
49	A key metabolic integrator, coenzyme A, modulates the activity of peroxiredoxin 5 via covalent modification. <i>Molecular and Cellular Biochemistry</i> , 2019 , 461, 91-102	4.2	14
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