Andrew J Murray

List of Publications by Year
in descending order

104 papers	5,308 citations	57719 44 h-index	91828 69 g-index
110 all docs	110 docs citations	110 times ranked	7253 citing authors

#	Article	IF	Citations
1	Nutritional Ketosis Alters Fuel Preference and Thereby Endurance Performance in Athletes. Cell Metabolism, 2016, 24, 256-268.	7.2	377
2	Uncoupling proteins in human heart. Lancet, The, 2004, 364, 1786-1788.	6.3	257
3	Metabolic basis to Sherpa altitude adaptation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6382-6387.	3.3	162
4	A high fat diet increases mitochondrial fatty acid oxidation and uncoupling to decrease efficiency in rat heart. Basic Research in Cardiology, 2011, 106, 447-457.	2.5	154
5	Metabolic differentiation in the embryonic retina. Nature Cell Biology, 2012, 14, 859-864.	4.6	153
6	A high-fat diet impairs cardiac high-energy phosphate metabolism and cognitive function in healthy human subjects. American Journal of Clinical Nutrition, 2011, 93, 748-755.	2.2	139
7	Acclimatization of skeletal muscle mitochondria to highâ€altitude hypoxia during an ascent of Everest. FASEB Journal, 2012, 26, 1431-1441.	0.2	138
8	Lipid zonation and phospholipid remodeling in nonalcoholic fatty liver disease. Hepatology, 2017, 65, 1165-1180.	3.6	138
9	Novel ketone diet enhances physical and cognitive performance. FASEB Journal, 2016, 30, 4021-4032.	0.2	132
10	Plasma Free Fatty Acids and Peroxisome Proliferator-Activated Receptor Â in the Control of Myocardial Uncoupling Protein Levels. Diabetes, 2005, 54, 3496-3502.	0.3	127
11	Inorganic Nitrate Promotes the Browning of White Adipose Tissue Through the Nitrate-Nitrite-Nitric Oxide Pathway. Diabetes, 2015, 64, 471-484.	0.3	121
12	Skeletal muscle alterations in patients with acute Covidâ€19 and postâ€acute sequelae of Covidâ€19. Journal of Cachexia, Sarcopenia and Muscle, 2022, 13, 11-22.	2.9	119
13	Fatty acid transporter levels and palmitate oxidation rate correlate with ejection fraction in the infarcted rat heart. Cardiovascular Research, 2006, 72, 430-437.	1.8	116
14	Deterioration of physical performance and cognitive function in rats with shortâ€term highâ€fat feeding. FASEB Journal, 2009, 23, 4353-4360.	0.2	116
15	Increased mitochondrial uncoupling proteins, respiratory uncoupling and decreased efficiency in the chronically infarcted rat heart. Journal of Molecular and Cellular Cardiology, 2008, 44, 694-700.	0.9	112
16	Suppression of Mitochondrial Electron Transport Chain Function in the Hypoxic Human Placenta: A Role for miRNA-210 and Protein Synthesis Inhibition. PLoS ONE, 2013, 8, e55194.	1.1	112
17	Mitochondrial â€" Endoplasmic reticulum interactions in the trophoblast: Stress and senescence. Placenta, 2017, 52, 146-155.	0.7	111
18	Shortâ€term consumption of a highâ€fat diet impairs wholeâ€body efficiency and cognitive function in sedentary men. FASEB Journal, 2011, 25, 1088-1096.	0.2	103

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19	Metabolic adaptation of skeletal muscle to high altitude hypoxia: how new technologies could resolve the controversies. Genome Medicine, 2009, 1, 117.	3.6	98
20	Oxygen delivery and fetal-placental growth: Beyond a question of supply and demand?. Placenta, 2012, 33, e16-e22.	0.7	95
21	Human placental metabolic adaptation to chronic hypoxia, high altitude: hypoxic preconditioning. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 298, R166-R172.	0.9	88
22	The contrasting roles of PPARÎ´ and PPARÎ³ in regulating the metabolic switch between oxidation and storage of fats in white adipose tissue. Genome Biology, 2011, 12, R75.	13.9	85
23	Cardiac response to hypobaric hypoxia: persistent changes in cardiac mass, function, and energy metabolism after a trek to Mt. Everest Base Camp. FASEB Journal, 2011, 25, 792-796.	0.2	85
24	Hepatic steatosis risk is partly driven by increased de novo lipogenesis following carbohydrate consumption. Genome Biology, 2018, 19, 79.	3.8	83
25	Brown and beige adipose tissue regulate systemic metabolism through a metabolite interorgan signaling axis. Nature Communications, 2021, 12, 1905.	5.8	82
26	A Ketone Ester Diet Increases Brain Malonyl-CoA and Uncoupling Proteins 4 and 5 while Decreasing Food Intake in the Normal Wistar Rat. Journal of Biological Chemistry, 2010, 285, 25950-25956.	1.6	78
27	Skeletal muscle energy metabolism in environmental hypoxia: climbing towards consensus. Extreme Physiology and Medicine, 2014, 3, 19.	2.5	78
28	Oral 28-day and developmental toxicity studies of (R)-3-hydroxybutyl (R)-3-hydroxybutyrate. Regulatory Toxicology and Pharmacology, 2012, 63, 196-208.	1.3	76
29	Cerebral venous system and anatomical predisposition to highâ€altitude headache. Annals of Neurology, 2013, 73, 381-389.	2.8	76
30	Placental mitochondria adapt developmentally and in response to hypoxia to support fetal growth. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1621-1626.	3.3	75
31	Imprinted Gene Dosage Is Critical for the Transition to Independent Life. Cell Metabolism, 2012, 15, 209-221.	7.2	72
32	Energy metabolism and the highâ€altitude environment. Experimental Physiology, 2016, 101, 23-27.	0.9	72
33	Noncanonical mitochondrial unfolded protein response impairs placental oxidative phosphorylation in early-onset preeclampsia. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18109-18118.	3.3	67
34	Mitochondria and heart failure. Current Opinion in Clinical Nutrition and Metabolic Care, 2007, 10, 704-711.	1.3	63
35	Mitochondrial function at extreme high altitude. Journal of Physiology, 2016, 594, 1137-1149.	1.3	61
36	Metabolic adjustment to high-altitude hypoxia: from genetic signals to physiological implications. Biochemical Society Transactions, 2018, 46, 599-607.	1.6	61

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37	Altered mitochondrial metabolism in the insulinâ€resistant heart. Acta Physiologica, 2020, 228, e13430.	1.8	56
38	Oxygen and placental development; parallels and differences with tumour biology. Placenta, 2017, 56, 14-18.	0.7	55
39	On the pivotal role of PPARa in adaptation of the heart to hypoxia and why fat in the diet increases hypoxic injury. FASEB Journal, 2016, 30, 2684-2697.	0.2	54
40	A study of metabolic compartmentation in the rat heart and cardiac mitochondria using high-resolution magic angle spinning 1 H NMR spectroscopy. FEBS Letters, 2003, 553, 73-78.	1.3	50
41	The Effect of High-Altitude on Human Skeletal Muscle Energetics: 31P-MRS Results from the Caudwell Xtreme Everest Expedition. PLoS ONE, 2010, 5, e10681.	1.1	50
42	Insulin resistance, abnormal energy metabolism and increased ischemic damage in the chronically infarcted rat heart. Cardiovascular Research, 2006, 71, 149-157.	1.8	49
43	Rosiglitazone treatment improves cardiac efficiency in hearts from diabetic mice. Archives of Physiology and Biochemistry, 2007, 113, 211-220.	1.0	48
44	Dietary nitrate increases arginine availability and protects mitochondrial complex I and energetics in the hypoxic rat heart. Journal of Physiology, 2014, 592, 4715-4731.	1.3	47
45	Translatable mitochondria-targeted protection against programmed cardiovascular dysfunction. Science Advances, 2020, 6, eabb1929.	4.7	41
46	Changes in muscle proteomics in the course of the Caudwell Research Expedition to Mt. Everest. Proteomics, 2015, 15, 160-171.	1.3	38
47	Nitrate enhances skeletal muscle fatty acid oxidation via a nitric oxide-cGMP-PPAR-mediated mechanism. BMC Biology, 2015, 13, 110.	1.7	37
48	Comprehensive Metabolic Profiling of Age-Related Mitochondrial Dysfunction in the High-Fat-Fed <i>ob</i>/<i>ob</i> Mouse Heart. Journal of Proteome Research, 2015, 14, 2849-2862.	1.8	35
49	Inorganic Nitrate Mimics Exercise-Stimulated Muscular Fiber-Type Switching and Myokine and Î³-Aminobutyric Acid Release. Diabetes, 2017, 66, 674-688.	0.3	35
50	The Effect of Bacterial Signal Indole on the Electrical Properties of Lipid Membranes. ChemPhysChem, 2013, 14, 417-423.	1.0	34
51	Metabolomic and lipidomic plasma profile changes in human participants ascending to Everest Base Camp. Scientific Reports, 2019, 9, 2297.	1.6	31
52	Diabetic microcirculatory disturbances and pathologic erythropoiesis are provoked by deposition of amyloid-forming amylin in red blood cells and capillaries. Kidney International, 2020, 97, 143-155.	2.6	31
53	Tissue-specific changes in fatty acid oxidation in hypoxic heart and skeletal muscle. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2013, 305, R534-R541.	0.9	29
54	How wasting is saving: Weight loss at altitude might result from an evolutionary adaptation. BioEssays, 2014, 36, 721-729.	1.2	29

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55	Metabolic Profiling of the Diabetic Heart: Toward a Richer Picture. Frontiers in Physiology, 2019, 10, 639.	1.3	27
56	Development and thyroid hormone dependence of skeletal muscle mitochondrial function towards birth. Journal of Physiology, 2020, 598, 2453-2468.	1.3	25
57	Effects of Germline VHL Deficiency on Growth, Metabolism, and Mitochondria. New England Journal of Medicine, 2020, 382, 835-844.	13.9	23
58	The association of circulating amylin with Î²â€amyloid in familial Alzheimer's disease. Alzheimer's and Dementia: Translational Research and Clinical Interventions, 2021, 7, e12130.	1.8	21
59	Metabolic adaptation to high altitude. Current Opinion in Endocrine and Metabolic Research, 2020, 11, 33-41.	0.6	20
60	Inorganic nitrate, hypoxia, and the regulation of cardiac mitochondrial respirationâ€"probing the role of PPARÎ±. FASEB Journal, 2019, 33, 7563-7577.	0.2	18
61	Influence of speed of sample processing on placental energetics and signalling pathways: Implications for tissue collection. Placenta, 2014, 35, 103-108.	0.7	17
62	Suppression of erythropoiesis by dietary nitrate. FASEB Journal, 2015, 29, 1102-1112.	0.2	16
63	Divergent trajectories of cellular bioenergetics, intermediary metabolism and systemic redox status in survivors and non-survivors of critical illness. Redox Biology, 2021, 41, 101907.	3.9	16
64	Design and conduct of Xtreme Everest 2: An observational cohort study of Sherpa and lowlander responses to graduated hypobaric hypoxia. F1000Research, 2015, 4, 90.	0.8	16
65	Altered Oxygen Utilisation in Rat Left Ventricle and Soleus after 14 Days, but Not 2 Days, of Environmental Hypoxia. PLoS ONE, 2015, 10, e0138564.	1.1	15
66	Human adaptation to hypoxia in critical illness. Journal of Applied Physiology, 2020, 129, 656-663.	1.2	15
67	Lipidomic Approaches to Study HDL Metabolism in Patients with Central Obesity Diagnosed with Metabolic Syndrome. International Journal of Molecular Sciences, 2022, 23, 6786.	1.8	15
68	Dietary long-chain, but not medium-chain, triglycerides impair exercise performance and uncouple cardiac mitochondria in rats. Nutrition and Metabolism, 2011, 8, 55.	1.3	14
69	Mitochondrial responses to extreme environments: insights from metabolomics. Extreme Physiology and Medicine, 2015, 4, 7.	2.5	14
70	Rapid kinetics of changes in oxygen consumption rate in thrombin-stimulated platelets measured by high-resolution respirometry. Biochemical and Biophysical Research Communications, 2018, 503, 2721-2727.	1.0	14
71	Cryopreservation of placental biopsies for mitochondrial respiratory analysis. Placenta, 2012, 33, 122-123.	0.7	13
72	PPARÎ±-independent effects of nitrate supplementation on skeletal muscle metabolism in hypoxia. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2019, 1865, 844-853.	1.8	13

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73	No evidence for a local renin-angiotensin system in liver mitochondria. Scientific Reports, 2013, 3, 2467.	1.6	12
74	Consequences of Lipid Remodeling of Adipocyte Membranes Being Functionally Distinct from Lipid Storage in Obesity. Journal of Proteome Research, 2020, 19, 3919-3935.	1.8	12
75	Î²-hydroxybutyrate accumulates in the rat heart during low-flow ischaemia with implications for functional recovery. ELife, 2021, 10, .	2.8	12
76	Hypoxia-Inducible Factors as Key Players in the Pathogenesis of Non-alcoholic Fatty Liver Disease and Non-alcoholic Steatohepatitis. Frontiers in Medicine, 2021, 8, 753268.	1.2	11
77	Thyroid Deficiency Before Birth Alters the Adipose Transcriptome to Promote Overgrowth of White Adipose Tissue and Impair Thermogenic Capacity. Thyroid, 2020, 30, 794-805.	2.4	10
78	Mtrr hypomorphic mutation alters liver morphology, metabolism and fuel storage in mice. Molecular Genetics and Metabolism Reports, 2020, 23, 100580.	0.4	9
79	Metabolic Consequences of Glucocorticoid Exposure before Birth. Nutrients, 2022, 14, 2304.	1.7	9
80	Inorganic Nitrate Promotes Glucose Uptake and Oxidative Catabolism in White Adipose Tissue Through the XOR-Catalyzed Nitric Oxide Pathway. Diabetes, 2020, 69, 893-901.	0.3	8
81	Development of cerebral mitochondrial respiratory function is impaired by thyroid hormone deficiency before birth in a regionâ€specific manner. FASEB Journal, 2021, 35, e21591.	0.2	8
82	Glucocorticoid maturation of mitochondrial respiratory capacity in skeletal muscle before birth. Journal of Endocrinology, 2021, 251, 53-68.	1.2	8
83	Notch Signaling and Cross-Talk in Hypoxia: A Candidate Pathway for High-Altitude Adaptation. Life, 2022, 12, 437.	1.1	8
84	A model for determining cardiac mitochondrial substrate utilisation using stable 13C-labelled metabolites. Metabolomics, 2019, 15, 154.	1.4	7
85	Oral Coenzyme Q10 Supplementation Does Not Prevent Cardiac Alterations During a High Altitude Trek to Everest Base Camp. High Altitude Medicine and Biology, 2014, 15, 459-467.	0.5	6
86	Taking a HIT for the heart: why training intensity matters. Journal of Applied Physiology, 2011, 111, 1229-1230.	1.2	5
87	Endurance exercise training blunts the deleterious effect of high-fat feeding on whole body efficiency. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 301, R320-R326.	0.9	5
88	Commentaries on Viewpoint: Human skeletal muscle wasting in hypoxia: a matter of hypoxic dose?. Journal of Applied Physiology, 2017, 122, 409-411.	1.2	5
89	Reconsidering critical illness as an uncharacterised acquired mitochondrial disorder. Journal of the Intensive Care Society, 2020, 21, 102-104.	1.1	5
90	The Smell of Hypoxia: using an electronic nose at altitude and proof of concept of its role in the prediction and diagnosis of acute mountain sickness. Physiological Reports, 2018, 6, e13854.	0.7	4

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91	Enhanced hepatic respiratory capacity and altered lipid metabolism support metabolic homeostasis during short-term hypoxic stress. BMC Biology, 2021, 19, 265.	1.7	4
92	Placental sex-dependent spermine synthesis regulates trophoblast gene expression through acetyl-coA metabolism and histone acetylation. Communications Biology, 2022, 5, .	2.0	4
93	Of mice and men (and muscle mitochondria). Experimental Physiology, 2013, 98, 879-880.	0.9	3
94	Rat pancreatectomy combined with isoprenaline or uninephrectomy as models of diabetic cardiomyopathy or nephropathy. Scientific Reports, 2020, 10, 16130.	1.6	3
95	Mitochondria at the extremes: pioneers, protectorates, protagonists. Extreme Physiology and Medicine, 2014, 3, 10.	2.5	2
96	An In Situ Study on the Effects of Extracts of T araxacum Officinale, â€… P aulliniia Pinnata and â€… T honningia Sanguinea on Mitochondrial Function. Journal of Food Biochemistry, 2015, 39, 682-688.	1.2	1
97	Novel "Dual Hit" Rat Model of Diabetic Cardiomyopathy. Diabetes, 2018, 67, .	0.3	1
98	Cortisol Regulates Cerebral Mitochondrial Oxidative Phosphorylation and Morphology of the Brain in a Region-Specific Manner in the Ovine Fetus. Biomolecules, 2022, 12, 768.	1.8	1
99	High-fat diet alters physical and mental performance via changes in mitochondrial UCPS. Journal of Molecular and Cellular Cardiology, 2008, 44, 818.	0.9	0
100	Mt Everest trek causes impaired cardiac high energy phosphate metabolism and diastolic impairment. Journal of Cardiovascular Magnetic Resonance, 2009, 11, .	1.6	0
101	004 Peroxisome proliferator-activated receptor alpha is essential for cardiac adaptation to chronic hypoxia. Heart, 2010, 96, e1-e2.	1.2	0
102	Response to Comment on Lee et al. Diabetes 2015;64:2836â€"2846. Comment on Roberts et al. Diabetes 2015;64:471â€"484. Diabetes, 2016, 65, e16-e16.	0.3	0
103	Editorial: Translational Approaches for Targeting Cardiovascular Complications of Diabetes. Frontiers in Pharmacology, 2021, 12, 799020.	1.6	0
104	Developmental programming of mitochondrial substrate metabolism in skeletal muscle of adult sheep by cortisol exposure before birth. Journal of Developmental Origins of Health and Disease, 0, , 1-11.	0.7	0