

Martin Jastroch

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

5,345
citations

109321

35
h-index

88630

70
g-index

86
all docs

86
docs citations

86
times ranked

9664
citing authors

#	ARTICLE	IF	CITATIONS
1	Mitochondrial proton and electron leaks. <i>Essays in Biochemistry</i> , 2010, 47, 53-67.	4.7	601
2	Astrocytic Insulin Signaling Couples Brain Glucose Uptake with Nutrient Availability. <i>Cell</i> , 2016, 166, 867-880.	28.9	382
3	Analysis and Interpretation of Microplate-Based Oxygen Consumption and pH Data. <i>Methods in Enzymology</i> , 2014, 547, 309-354.	1.0	351
4	Mitochondria are physiologically maintained at close to 50 °C. <i>PLoS Biology</i> , 2018, 16, e2003992.	5.6	295
5	Alternatively activated macrophages do not synthesize catecholamines or contribute to adipose tissue adaptive thermogenesis. <i>Nature Medicine</i> , 2017, 23, 623-630.	30.7	282
6	Identification of proliferative and mature β -cells in the islets of Langerhans. <i>Nature</i> , 2016, 535, 430-434.	27.8	279
7	Atlas of Circadian Metabolism Reveals System-wide Coordination and Communication between Clocks. <i>Cell</i> , 2018, 174, 1571-1585.e11.	28.9	258
8	Quantitative measurement of mitochondrial membrane potential in cultured cells: calcium-induced deactivation and hyperpolarization of neuronal mitochondria. <i>Journal of Physiology</i> , 2012, 590, 2845-2871.	2.9	172
9	Mitochondrial uncoupling and lifespan. <i>Mechanisms of Ageing and Development</i> , 2010, 131, 463-472.	4.6	136
10	Adaptive thermogenesis and thermal conductance in wild-type and UCP1-KO mice. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2010, 299, R1396-R1406.	1.8	129
11	Uncoupling protein 1 in fish uncovers an ancient evolutionary history of mammalian nonshivering thermogenesis. <i>Physiological Genomics</i> , 2005, 22, 150-156.	2.3	111
12	p62 Links β -adrenergic input to mitochondrial function and thermogenesis. <i>Journal of Clinical Investigation</i> , 2013, 123, 469-478.	8.2	107
13	Long-Term Cold Adaptation Does Not Require FGF21 or UCP1. <i>Cell Metabolism</i> , 2017, 26, 437-446.e5.	16.2	100
14	Brite/beige fat and UCP1 – is it thermogenesis?. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 1075-1082.	1.0	99
15	T cells armed with C-X-C chemokine receptor type 6 enhance adoptive cell therapy for pancreatic tumours. <i>Nature Biomedical Engineering</i> , 2021, 5, 1246-1260.	22.5	80
16	Uncoupling Protein 1 Decreases Superoxide Production in Brown Adipose Tissue Mitochondria. <i>Journal of Biological Chemistry</i> , 2010, 285, 21961-21968.	3.4	79
17	Genetic disruption of uncoupling protein 1 in mice renders brown adipose tissue a significant source of FGF21 secretion. <i>Molecular Metabolism</i> , 2015, 4, 537-542.	6.5	78
18	Inactivation of thermogenic UCP1 as a historical contingency in multiple placental mammal clades. <i>Science Advances</i> , 2017, 3, e1602878.	10.3	78

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19	Uncoupling protein-2 attenuates glucose-stimulated insulin secretion in INS-1E insulinoma cells by lowering mitochondrial reactive oxygen species. <i>Free Radical Biology and Medicine</i> , 2011, 50, 609-616.	2.9	76
20	Functional characterisation of UCP1 in the common carp: uncoupling activity in liver mitochondria and cold-induced expression in the brain. <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , 2007, 177, 743-752.	1.5	73
21	Dissociation Between Brown Adipose Tissue ¹⁸ F-FDG Uptake and Thermogenesis in Uncoupling Protein 1-Deficient Mice. <i>Journal of Nuclear Medicine</i> , 2017, 58, 1100-1103.	5.0	73
22	Calcineurin Links Mitochondrial Elongation with Energy Metabolism. <i>Cell Metabolism</i> , 2015, 22, 838-850.	16.2	71
23	A Stat6/Pten Axis Links Regulatory T Cells with Adipose Tissue Function. <i>Cell Metabolism</i> , 2017, 26, 475-492.e7.	16.2	71
24	Brown fat in a protoendothermic mammal fuels eutherian evolution. <i>Nature Communications</i> , 2013, 4, 2140.	12.8	70
25	Molecular evolution of UCP1 and the evolutionary history of mammalian non-shivering thermogenesis. <i>BMC Evolutionary Biology</i> , 2009, 9, 4.	3.2	67
26	Spare mitochondrial respiratory capacity permits human adipocytes to maintain ATP homeostasis under hypoglycemic conditions. <i>FASEB Journal</i> , 2014, 28, 761-770.	0.5	67
27	Endogenous FGF21-signaling controls paradoxical obesity resistance of UCP1-deficient mice. <i>Nature Communications</i> , 2020, 11, 624.	12.8	60
28	Muscle mitochondrial stress adaptation operates independently of endogenous FGF21 action. <i>Molecular Metabolism</i> , 2016, 5, 79-90.	6.5	58
29	Prediction of Adipose Browning Capacity by Systematic Integration of Transcriptional Profiles. <i>Cell Reports</i> , 2018, 23, 3112-3125.	6.4	57
30	Mitochondrial adaptation in steatotic mice. <i>Mitochondrion</i> , 2018, 40, 1-12.	3.4	54
31	miR-184 Regulates Pancreatic β -Cell Function According to Glucose Metabolism. <i>Journal of Biological Chemistry</i> , 2015, 290, 20284-20294.	3.4	53
32	Functional characterization of UCP1 in mammalian HEK293 cells excludes mitochondrial uncoupling artefacts and reveals no contribution to basal proton leak. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 1660-1670.	1.0	46
33	Uncoupling protein 1 controls reactive oxygen species in brown adipose tissue. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 7744-7746.	7.1	41
34	Insights into brown adipose tissue evolution and function from non-model organisms. <i>Journal of Experimental Biology</i> , 2018, 221, .	1.7	41
35	α -Melanocyte stimulating hormone promotes muscle glucose uptake via melanocortin 5 receptors. <i>Molecular Metabolism</i> , 2016, 5, 807-822.	6.5	39
36	Celastrol-Induced Weight Loss Is Driven by Hypophagia and Independent From UCP1. <i>Diabetes</i> , 2018, 67, 2456-2465.	0.6	39

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37	UCP1 ectopically expressed in murine muscle displays native function and mitigates mitochondrial superoxide production. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2010, 1797, 324-330.	1.0	35
38	Antioxidant properties of UCP1 are evolutionarily conserved in mammals and buffer mitochondrial reactive oxygen species. <i>Free Radical Biology and Medicine</i> , 2014, 77, 210-216.	2.9	31
39	Bispecific Antibodies Enable Synthetic Agonistic Receptor-Transduced T Cells for Tumor Immunotherapy. <i>Clinical Cancer Research</i> , 2019, 25, 5890-5900.	7.0	31
40	Uncoupling protein 2 and 3 in marsupials: identification, phylogeny, and gene expression in response to cold and fasting in <i>Antechinus flavipes</i> . <i>Physiological Genomics</i> , 2004, 17, 130-139.	2.3	29
41	The molecular and biochemical basis of nonshivering thermogenesis in an African endemic mammal, <i>Elephantulus myurus</i> . <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2007, 293, R2120-R2127.	1.8	28
42	Direct Substrate Delivery Into Mitochondrial Fission-Deficient Pancreatic Islets Rescues Insulin Secretion. <i>Diabetes</i> , 2017, 66, 1247-1257.	0.6	28
43	Extracellular calcium modulates brown adipocyte differentiation and identity. <i>Scientific Reports</i> , 2017, 7, 8888.	3.3	27
44	4-Methylumbelliferone improves the thermogenic capacity of brown adipose tissue. <i>Nature Metabolism</i> , 2019, 1, 546-559.	11.9	26
45	When pigs fly, UCP1 makes heat. <i>Molecular Metabolism</i> , 2015, 4, 359-362.	6.5	25
46	Activated macrophages control human adipocyte mitochondrial bioenergetics via secreted factors. <i>Molecular Metabolism</i> , 2017, 6, 1226-1239.	6.5	25
47	Uncoupling proteins as a therapeutic target to protect the diabetic heart. <i>Pharmacological Research</i> , 2018, 137, 11-24.	7.1	24
48	Measurement of the Absolute Magnitude and Time Courses of Mitochondrial Membrane Potential in Primary and Clonal Pancreatic Beta-Cells. <i>PLoS ONE</i> , 2016, 11, e0159199.	2.5	24
49	Activation of Peroxisome Proliferator-Activated Receptor- γ as Novel Therapeutic Strategy to Prevent In-Stent Restenosis and Stent Thrombosis. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2016, 36, 1534-1548.	2.4	22
50	Glycemic Variability Promotes Both Local Invasion and Metastatic Colonization by Pancreatic Ductal Adenocarcinoma. <i>Cellular and Molecular Gastroenterology and Hepatology</i> , 2018, 6, 429-449.	4.5	22
51	Comparison of Mitochondrial Reactive Oxygen Species Production of Ectothermic and Endothermic Fish Muscle. <i>Frontiers in Physiology</i> , 2017, 8, 704.	2.8	21
52	Depression of mitochondrial respiration during daily torpor of the Djungarian hamster, <i>Phodopus sungorus</i> , is specific for liver and correlates with body temperature. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2013, 164, 584-589.	1.8	19
53	The good and the BAT of metabolic sex differences in thermogenic human adipose tissue. <i>Molecular and Cellular Endocrinology</i> , 2021, 533, 111337.	3.2	19
54	Molecular evolution of uncoupling proteins and implications for brain function. <i>Neuroscience Letters</i> , 2019, 696, 140-145.	2.1	17

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55	Evolution of UCP1. Handbook of Experimental Pharmacology, 2018, 251, 127-141.	1.8	14
56	Preadipocytes of obese humans display gender-specific bioenergetic responses to glucose and insulin. Molecular Metabolism, 2019, 20, 28-37.	6.5	14
57	Importance of adipocyte browning in the evolution of endothermy. Philosophical Transactions of the Royal Society B: Biological Sciences, 2020, 375, 20190134.	4.0	14
58	Minor Role of Mitochondrial Respiration for Fatty-Acid Induced Insulin Secretion. International Journal of Molecular Sciences, 2013, 14, 18989-18998.	4.1	13
59	Metabolic depression during warm torpor in the Golden spiny mouse (<i>Acomys russatus</i>) does not affect mitochondrial respiration and hydrogen peroxide release. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2014, 167, 7-14.	1.8	12
60	Respiromics – An integrative analysis linking mitochondrial bioenergetics to molecular signatures. Molecular Metabolism, 2018, 9, 4-14.	6.5	12
61	Comparing Electron Leak in Vertebrate Muscle Mitochondria. Integrative and Comparative Biology, 2018, 58, 495-505.	2.0	11
62	Disruption of thermogenic UCP1 predated the divergence of pigs and peccaries. Journal of Experimental Biology, 2020, 223, .	1.7	10
63	Mitochondrial Proton Conductance in Skeletal Muscle of a Cold-Exposed Marsupial, <i>Antechinus flavipes</i> , Is Unlikely to Be Involved in Adaptive Nonshivering Thermogenesis but Displays Increased Sensitivity toward Carbon-Centered Radicals. Physiological and Biochemical Zoology, 2009, 82, 447-454.	1.5	9
64	Diversification and coevolution of the ghrelin/growth hormone secretagogue receptor system in vertebrates. Ecology and Evolution, 2016, 6, 2516-2535.	1.9	9
65	Data on chow, liver tissue and mitochondrial fatty acid compositions as well as mitochondrial proteome changes after feeding mice a western diet for 24 weeks. Data in Brief, 2017, 15, 163-169.	1.0	9
66	Editorial: The Evolution of Endothermy – From Patterns to Mechanisms. Frontiers in Physiology, 2018, 9, 891.	2.8	9
67	Gut Microbes Controlling Blood Sugar: No Fire Required!. Cell Metabolism, 2020, 31, 443-444.	16.2	9
68	Torpor at high ambient temperature in a neotropical didelphid, the grey short-tailed opossum (<i>Monodelphis domestica</i>). Die Naturwissenschaften, 2014, 101, 1003-1006.	1.6	8
69	Loss of the psychiatric risk factor SLC6A15 is associated with increased metabolic functions in primary hippocampal neurons. European Journal of Neuroscience, 2021, 53, 390-401.	2.6	8
70	Leptin action in the brain: How (and when) it makes fat burn. Molecular Metabolism, 2013, 2, 63-64.	6.5	7
71	CD4+ T cell activation, function, and metabolism are inhibited by low concentrations of DMSO. Journal of Immunological Methods, 2018, 463, 54-60.	1.4	7
72	Pros and cons for the evidence of adaptive non-shivering thermogenesis in marsupials. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2021, 191, 1085-1095.	1.5	7

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73	Fat controls U. Science, 2017, 355, 1124-1125.	12.6	6
74	Expression of Uncoupling Proteins in a Mammalian Cell Culture System (HEK293) and Assessment of Their Protein Function. Methods in Molecular Biology, 2012, 810, 153-164.	0.9	6
75	Activating ligands of Uncoupling protein 1 identified by rapid membrane protein thermostability shift analysis. Molecular Metabolism, 2022, 62, 101526.	6.5	6
76	Molecular evolution of thermogenic uncoupling protein 1 and implications for medical intervention of human disease. Molecular Aspects of Medicine, 2019, 68, 6-17.	6.4	4
77	Respiratory Parameters for the Classification of Dysfunctional Insulin Secretion by Pancreatic Islets. Metabolites, 2021, 11, 405.	2.9	4
78	Comparative functional analyses of UCP1 to unravel evolution, ecophysiology and mechanisms of mammalian thermogenesis. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2021, 255, 110613.	1.6	2
79	Obligatory homeothermy of mesic habitat-adapted African striped mice, <i>Rhabdomys pumilio</i> , is governed by seasonal basal metabolism and year-round "thermogenic readiness"™ of brown adipose tissue. Journal of Experimental Biology, 2022, 225, .	1.7	2
80	Physiological Significance of Mitochondrial Uncoupling Protein 1 in the Prevention of Reactive Oxygen Species and Control of Substrate Oxidation. FASEB Journal, 2010, 24, 1b585.	0.5	1
81	The evolution of uncoupling protein 1-mediated nonshivering thermogenesis in vertebrates. FASEB Journal, 2008, 22, 102-102.	0.5	0
82	Evolution of pinniped UCP1 is not linked to aquatic life but to neonatal thermogenesis and body size. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2118431119.	7.1	0