Marc Liesa Roig

List of Publications by Year
in descending order

83 papers	10,890 citations	66234 42 h-index	64668 79 g-index
94 all docs	94 docs citations	94 times ranked	17827 citing authors

#	Article	IF	Citations
1	Pancreatic cancers require autophagy for tumor growth. Genes and Development, 2011, 25, 717-729.	2.7	1,224
2	Telomere dysfunction induces metabolic and mitochondrial compromise. Nature, 2011, 470, 359-365.	13.7	1,093
3	Mitochondrial Dynamics in the Regulation of Nutrient Utilization and Energy Expenditure. Cell Metabolism, 2013, 17, 491-506.	7.2	1,043
4	Mitochondrial Dynamics in Mammalian Health and Disease. Physiological Reviews, 2009, 89, 799-845.	13.1	794
5	Mitofusin 2 (Mfn2) links mitochondrial and endoplasmic reticulum function with insulin signaling and is essential for normal glucose homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5523-5528.	3.3	544
6	The Charcotâ€“Marieâ€“Tooth type 2A gene product, Mfn2, up-regulates fuel oxidation through expression of OXPHOS system. Human Molecular Genetics, 2005, 14, 1405-1415.	1.4	397
7	Bactericidal Antibiotics Induce Mitochondrial Dysfunction and Oxidative Damage in Mammalian Cells. Science Translational Medicine, 2013, 5, 192ra85.	5.8	391
8	Mitochondria Bound to Lipid Droplets Have Unique Bioenergetics, Composition, and Dynamics that Support Lipid Droplet Expansion. Cell Metabolism, 2018, 27, 869-885.e6.	7.2	359
9	Evidence for a Mitochondrial Regulatory Pathway Defined by Peroxisome Proliferator-Activated Receptor-Â Coactivator-1Â, Estrogen-Related Receptor-Â, and Mitofusin 2. Diabetes, 2006, 55, 1783-1791.	0.3	320
10	LKB1 loss links serine metabolism to DNA methylation and tumorigenesis. Nature, 2016, 539, 390-395.	13.7	248
11	Etomoxir Inhibits Macrophage Polarization by Disrupting CoA Homeostasis. Cell Metabolism, 2018, 28, 490-503.e7.	7.2	242
12	Antitelomerase Therapy Provokes ALT and Mitochondrial Adaptive Mechanisms in Cancer. Cell, 2012, 148, 651-663.	13.5	240
13	Individual cristae within the same mitochondrion display different membrane potentials and are functionally independent. EMBO Journal, 2019, 38, e101056.	3.5	204
14	Hormone-induced mitochondrial fission is utilized by brown adipocytes as an amplification pathway for energy expenditure. EMBO Journal, 2014, 33, n/a-n/a.	3.5	185
15	Role of mitochondrial dynamics proteins in the pathophysiology of obesity and type 2 diabetes. International Journal of Biochemistry and Cell Biology, 2009, 41, 1846-1854.	1.2	179
16	Mitochondria Bound to Lipid Droplets: Where Mitochondrial Dynamics Regulate Lipid Storage and Utilization. Cell Metabolism, 2019, 29, 827-835.	7.2	179
17	Subjects With Early-Onset Type 2 Diabetes Show Defective Activation of the Skeletal Muscle PGC-1Î±/Mitofusin-2 Regulatory Pathway in Response to Physical Activity. Diabetes Care, 2010, 33, 645-651.	4.3	168
18	Mitochondrial fusion proteins: Dual regulators of morphology and metabolism. Seminars in Cell and Developmental Biology, 2010, 21, 566-574.	2.3	165

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19	Mitochondrial Fusion Is Increased by the Nuclear Coactivator PGC-1Î². PLoS ONE, 2008, 3, e3613.	1.1	159
20	A REDD1/TXNIP pro-oxidant complex regulates ATG4B activity to control stress-induced autophagy and sustain exercise capacity. Nature Communications, 2015, 6, 7014.	5.8	157
21	Mitochondrial DNA and TLR9 drive muscle inflammation upon Opa1 deficiency. EMBO Journal, 2018, 37, .	3.5	139
22	A novel approach to measure mitochondrial respiration in frozen biological samples. EMBO Journal, 2020, 39, e104073.	3.5	110
23	Lysosomal dysfunction and impaired autophagy underlie the pathogenesis of amyloidogenic light chainâ€mediated cardiotoxicity. EMBO Molecular Medicine, 2014, 6, 1493-1507.	3.3	106
24	Cristae undergo continuous cycles of membrane remodelling in a <scp>MICOS</scp> â€dependent manner. EMBO Reports, 2020, 21, e49776.	2.0	106
25	Mitochondrial dynamics as a bridge between mitochondrial dysfunction and insulin resistance. Archives of Physiology and Biochemistry, 2009, 115, 1-12.	1.0	100
26	Mitochondrial Retrograde Signaling in Mammals Is Mediated by the Transcriptional Cofactor GPS2 via Direct Mitochondria-to-Nucleus Translocation. Molecular Cell, 2018, 69, 757-772.e7.	4.5	95
27	Mfn2 deletion in brown adipose tissue protects from insulin resistance and impairs thermogenesis. EMBO Reports, 2017, 18, 1123-1138.	2.0	89
28	Mitochondrial Reactive Oxygen Species Mediate Cardiac Structural, Functional, and Mitochondrial Consequences of Dietâ€Induced Metabolic Heart Disease. Journal of the American Heart Association, 2016, 5, .	1.6	85
29	Defective Mitochondrial Morphology and Bioenergetic Function in Mice Lacking the Transcription Factor Yin Yang 1 in Skeletal Muscle. Molecular and Cellular Biology, 2012, 32, 3333-3346.	1.1	77
30	Emergence of a Stage-Dependent Human Liver Disease Signature with Directed Differentiation of Alpha-1 Antitrypsin-Deficient iPS Cells. Stem Cell Reports, 2015, 4, 873-885.	2.3	77
31	Biophysical properties of mitochondrial fusion events in pancreatic Î²-cells and cardiac cells unravel potential control mechanisms of its selectivity. American Journal of Physiology - Cell Physiology, 2010, 299, C477-C487.	2.1	75
32	Estrogen receptor Î± protects pancreatic Î²-cells from apoptosis by preserving mitochondrial function and suppressing endoplasmic reticulum stress. Journal of Biological Chemistry, 2018, 293, 4735-4751.	1.6	70
33	Mitochondrial ABC transporters function: The role of ABCB10 (ABC-me) as a novel player in cellular handling of reactive oxygen species. Biochimica Et Biophysica Acta - Molecular Cell Research, 2012, 1823, 1945-1957.	1.9	68
34	High fat, high sucrose diet causes cardiac mitochondrial dysfunction due in part to oxidative post-translational modification of mitochondrial complex II. Journal of Molecular and Cellular Cardiology, 2015, 78, 165-173.	0.9	68
35	Mitochondrial Transporter ATP Binding Cassette Mitochondrial Erythroid Is a Novel Gene Required for Cardiac Recovery After Ischemia/Reperfusion. Circulation, 2011, 124, 806-813.	1.6	61
36	Hypothalamic oestrogen receptor alpha establishes a sexually dimorphic regulatory node of energy expenditure. Nature Metabolism, 2020, 2, 351-363.	5.1	61

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37	Testosterone Plus Low-Intensity Physical Training in Late Life Improves Functional Performance, Skeletal Muscle Mitochondrial Biogenesis, and Mitochondrial Quality Control in Male Mice. PLoS ONE, 2012, 7, e51180.	1.1	55
38	Mitochondrial oxidative function in NAFLD: Friend or foe?. Molecular Metabolism, 2021, 50, 101134.	3.0	53
39	Role of Mitofusin 2 in the Renal Stress Response. PLoS ONE, 2012, 7, e31074.	1.1	53
40	Mitochondrial remodeling in mice with cardiomyocyte-specific lipid overload. Journal of Molecular and Cellular Cardiology, 2015, 79, 275-283.	0.9	52
41	ATP-Binding Cassette B10 Regulates Early Steps of Heme Synthesis. Circulation Research, 2013, 113, 279-287.	2.0	50
42	Estrogen-sensitive medial preoptic area neurons coordinate torpor in mice. Nature Communications, 2020, 11, 6378.	5.8	49
43	Patient-specific iPSCs carrying an SFTPC mutation reveal the intrinsic alveolar epithelial dysfunction at the inception of interstitial lung disease. Cell Reports, 2021, 36, 109636.	2.9	48
44	The mitochondrial transporter ABC-me (ABCB10), a downstream target of GATA-1, is essential for erythropoiesis in vivo. Cell Death and Differentiation, 2012, 19, 1117-1126.	5.0	46
45	Conditional Knockout of Proximal Tubule Mitofusin 2 Accelerates Recovery and Improves Survival after Renal Ischemia. Journal of the American Society of Nephrology: JASN, 2015, 26, 1092-1102.	3.0	43
46	Sex-specific metabolic functions of adipose Lipocalin-2. Molecular Metabolism, 2019, 30, 30-47.	3.0	41
47	The Role of Mitochondrial Fat Oxidation in Cancer Cell Proliferation and Survival. Cells, 2020, 9, 2600.	1.8	38
48	The biology of lipid droplet-bound mitochondria. Seminars in Cell and Developmental Biology, 2020, 108, 55-64.	2.3	38
49	Role of Myotonic Dystrophy Protein Kinase (DMPK) in Glucose Homeostasis and Muscle Insulin Action. PLoS ONE, 2007, 2, e1134.	1.1	36
50	Glucocorticoid Modulation of Mitochondrial Function in Hepatoma Cells Requires the Mitochondrial Fission Protein Drp1. Antioxidants and Redox Signaling, 2013, 19, 366-378.	2.5	34
51	The Extracellular Redox State Modulates Mitochondrial Function, Gluconeogenesis, and Glycogen Synthesis in Murine Hepatocytes. PLoS ONE, 2015, 10, e0122818.	1.1	33
52	ATP-consuming futile cycles as energy dissipating mechanisms to counteract obesity. Reviews in Endocrine and Metabolic Disorders, 2022, 23, 121-131.	2.6	33
53	Individual islet respirometry reveals functional diversity within the islet population of mice and human donors. Molecular Metabolism, 2018, 16, 150-159.	3.0	32
54	Sex-specific genetic regulation of adipose mitochondria and metabolic syndrome by Ndufv2. Nature Metabolism, 2021, 3, 1552-1568.	5.1	32

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55	NCLX prevents cell death during adrenergic activation of the brown adipose tissue. Nature Communications, 2020, 11, 3347.	5.8	31
56	Blocking mitochondrial pyruvate import in brown adipocytes induces energy wasting via lipid cycling. EMBO Reports, 2020, 21, e49634.	2.0	31
57	Nanoparticleâ€mediated lysosomal reacidification restores mitochondrial turnover and function in Î² cells under lipotoxicity. FASEB Journal, 2019, 33, 4154-4165.	0.2	29
58	Quantification of cristae architecture reveals time-dependent characteristics of individual mitochondria. Life Science Alliance, 2020, 3, e201900620.	1.3	29
59	ABCB10 exports mitochondrial biliverdin, driving metabolic maladaptation in obesity. Science Translational Medicine, 2021, 13, .	5.8	27
60	Salen Mn Complexes are Superoxide Dismutase/Catalase Mimetics that Protect the Mitochondria. Current Inorganic Chemistry, 2012, 2, 325-334.	0.2	27
61	Mitochondrial Proton Leak Regulated by Cyclophilin D Elevates Insulin Secretion in Islets at Nonstimulatory Glucose Levels. Diabetes, 2020, 69, 131-145.	0.3	26
62	Measuring Mitochondrial Respiration in Previously Frozen Biological Samples. Current Protocols in Cell Biology, 2020, 89, e116.	2.3	26
63	Genes involved in mitochondrial biogenesis/function are induced in response to bilio-pancreatic diversion in morbidly obese individuals with normal glucose tolerance but not in type 2 diabetic patients. Diabetologia, 2009, 52, 1618-1627.	2.9	25
64	Diluted serum from calorieâ€restricted animals promotes mitochondrial Î²â€cell adaptations and protect against glucolipotoxicity. FEBS Journal, 2016, 283, 822-833.	2.2	25
65	Mitochondrial Networking in T Cell Memory. Cell, 2016, 166, 9-10.	13.5	21
66	Glucose metabolism and pyruvate carboxylase enhance glutathione synthesis and restrict oxidative stress in pancreatic islets. Cell Reports, 2021, 37, 110037.	2.9	21
67	Recruitment and remodeling of peridroplet mitochondria in human adipose tissue. Redox Biology, 2021, 46, 102087.	3.9	17
68	Elamipretide Promotes Mitophagosome Formation and Prevents Its Reduction Induced by Nutrient Excess in INS1 Î²-cells. Journal of Molecular Biology, 2018, 430, 4823-4833.	2.0	14
69	ATP Binding and Hydrolysis Properties of ABCB10 and Their Regulation by Glutathione. PLoS ONE, 2015, 10, e0129772.	1.1	13
70	To Fis or not to Fuse? This is the question!. EMBO Journal, 2019, 38, .	3.5	12
71	Isolation and functional analysis of peridroplet mitochondria from murine brown adipose tissue. STAR Protocols, 2021, 2, 100243.	0.5	11
72	Method for live-cell super-resolution imaging of mitochondrial cristae and quantification of submitochondrial membrane potentials. Methods in Cell Biology, 2020, 155, 545-555.	0.5	7

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73	CRISPR interference interrogation of COPD GWAS genes reveals the functional significance of desmoplakin in iPSC-derived alveolar epithelial cells. Science Advances, 2022, 8, .	4.7	6
74	Why does a mitochondrion need its individual cristae to be functionally autonomous?. Molecular and Cellular Oncology, 2020, 7, 1705119.	0.3	4
75	High-Throughput Image Analysis of Lipid-Droplet-Bound Mitochondria. Methods in Molecular Biology, 2021, 2276, 285-303.	0.4	2
76	The goodies of chelated fat: ironâ€regulated lipid droplet biogenesis precedes and preserves mitophagy. EMBO Journal, 2022, 41, e111238.	3.5	2
77	Determining Basal Energy Expenditure and the Capacity of Thermogenic Adipocytes to Expend Energy in Obese Mice. Journal of Visualized Experiments, 2021, , .	0.2	1
78	ABCB10 Loss Reduces CD4⁺ T Cell Activation and Memory Formation. Journal of Immunology, 2022, 208, 328-337.	0.4	1
79	Mechanisms of Mitochondria Assembly, Dynamics and Turnover in Health and Disease. Journal of Molecular Biology, 2018, 430, 4821-4822.	2.0	0
80	ABCB10 deletion in cardiomyocytes leads to mitochondrial dysfunction and early death. Free Radical Biology and Medicine, 2018, 128, S22.	1.3	0
81	Mitochondrial adaptation in obesity is a ClpPicated business. EMBO Reports, 2018, 19, .	2.0	0
82	Mitochondrial dynamics regulate brown adiopcyte energy expenditure. FASEB Journal, 2013, 27, 582.4.	0.2	0
83	Deletion of ABCB10 in beta-cells protects from high-fat diet induced insulin resistance. Molecular Metabolism, 2022, 55, 101403.	3.0	0