Carlos T Moraes

List of Publications by Year
in descending order

101	12,319	28274	37204
papers	citations	55 h-index	96 g-index

105	105	105	12439
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Glycolytic oligodendrocytes maintain myelin and long-term axonal integrity. Nature, 2012, 485, 517-521.	27.8	1,120
2	Mitochondrial DNA Deletions in Progressive External Ophthalmoplegia and Kearns-Sayre Syndrome. New England Journal of Medicine, 1989, 320, 1293-1299.	27.0	1,012
3	Increased muscle PGC-1Î± expression protects from sarcopenia and metabolic disease during aging. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20405-20410.	7.1	554
4	The Qo site of the mitochondrial complex III is required for the transduction of hypoxic signaling via reactive oxygen species production. Journal of Cell Biology, 2007, 177, 1029-1036.	5.2	510
5	Respiratory Complex III Is Required to Maintain Complex I in Mammalian Mitochondria. Molecular Cell, 2004, 13, 805-815.	9.7	402
6	Generation of histocompatible tissues using nuclear transplantation. Nature Biotechnology, 2002, 20, 689-696.	17.5	367
7	Specific elimination of mutant mitochondrial genomes in patient-derived cells by mitoTALENs. Nature Medicine, 2013, 19, 1111-1113.	30.7	350
8	Recombination via flanking direct repeats is a major cause of large-scale deletions of human mitochondrial DNA. Nucleic Acids Research, 1990, 18, 561-567.	14.5	345
9	Titrating the Effects of Mitochondrial Complex I Impairment in the Cell Physiology. Journal of Biological Chemistry, 1999, 274, 16188-16197.	3.4	342
10	Cloning of an Endangered Species (Bos gaurus) Using Interspecies Nuclear Transfer. Cloning, 2000, 2, 79-90.	2.1	333
11	Reactive oxygen species and mitochondrial diseases. Seminars in Cell and Developmental Biology, 2001, 12, 449-457.	5.0	308
12	Mitochondrial myopathy induces a starvation-like response. Human Molecular Genetics, 2010, 19, 3948-3958.	2.9	249
13	Selective Elimination of Mitochondrial Mutations in the Germline by Genome Editing. Cell, 2015, 161, 459-469.	28.9	245
14	Mitochondrial Genome Engineering: The Revolution May Not Be CRISPR-Ized. Trends in Genetics, 2018, 34, 101-110.	6.7	230
15	Atypical clinical presentations associated with the MELAS mutation at position 3243 of human mitochondrial DNA. Neuromuscular Disorders, 1993, 3, 43-50.	0.6	219
16	The CoQH2/CoQ Ratio Serves as a Sensor of Respiratory Chain Efficiency. Cell Reports, 2016, 15, 197-209.	6.4	215
17	Cytochrome c Oxidase Is Required for the Assembly/Stability of Respiratory Complex I in Mouse Fibroblasts. Molecular and Cellular Biology, 2006, 26, 4872-4881.	2.3	213
18	MitoTALEN reduces mutant mtDNA load and restores tRNAAla levels in a mouse model of heteroplasmic mtDNA mutation. Nature Medicine, 2018, 24, 1696-1700.	30.7	187

#	Article	IF	Citations
19	Lack of Oxidative Phosphorylation and Low Mitochondrial Membrane Potential Decrease Susceptibility to Apoptosis and Do Not Modulate the Protective Effect of Bcl-xL in Osteosarcoma Cells. Journal of Biological Chemistry, 2000, 275, 7087-7094.	3.4	185
20	Human Xenomitochondrial Cybrids. Journal of Biological Chemistry, 1998, 273, 14210-14217.	3.4	174
21	Cytochrome c oxidase deficiency in neurons decreases both oxidative stress and amyloid formation in a mouse model of Alzheimer's disease. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14163-14168.	7.1	160
22	Molecular analysis of the muscle pathology associated with mitochondrial DNA deletions. Nature Genetics, 1992, 1, 359-367.	21.4	156
23	MitoTALEN: A General Approach to Reduce Mutant mtDNA Loads and Restore Oxidative Phosphorylation Function in Mitochondrial Diseases. Molecular Therapy, 2015, 23, 1592-1599.	8.2	149
24	Double-strand breaks of mouse muscle mtDNA promote large deletions similar to multiple mtDNA deletions in humans. Human Molecular Genetics, 2005, 14, 893-902.	2.9	147
25	A mitochondrial tRNA anticodon swap associated with a muscle disease. Nature Genetics, 1993, 4, 284-288.	21.4	146
26	Mice lacking COX10 in skeletal muscle recapitulate the phenotype of progressive mitochondrial myopathies associated with cytochrome c oxidase deficiency. Human Molecular Genetics, 2005, 14, 2737-2748.	2.9	145
27	Rapid directional shift of mitochondrial DNA heteroplasmy in animal tissues by a mitochondrially targeted restriction endonuclease. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14392-14397.	7.1	143
28	Human mitochondrial DNA with large deletions repopulates organelles faster than full-length genomes under relaxed copy number control. Nucleic Acids Research, 2002, 30, 4626-4633.	14.5	139
29	An out-of-frame cytochromeb gene deletion from a patient with parkinsonism is associated with impaired complex III assembly and an increase in free radical production. Annals of Neurology, 2000, 48, 774-781.	5.3	126
30	Fatal infantile liver failure associated with mitochondrial DNA depletion. Journal of Pediatrics, 1992, 121, 896-901.	1.8	123
31	Cells Lacking Rieske Iron-Sulfur Protein Have a Reactive Oxygen Species-Associated Decrease in Respiratory Complexes I and IV. Molecular and Cellular Biology, 2012, 32, 415-429.	2.3	107
32	Intra- and inter-molecular recombination of mitochondrial DNA after in vivo induction of multiple double-strand breaks. Nucleic Acids Research, 2009, 37, 4218-4226.	14.5	106
33	Respiratory supercomplexes act as a platform for complex <scp>III</scp> â€mediated maturation of human mitochondrial complexes I and <scp>IV</scp>. EMBO Journal, 2020, 39, e102817.	7.8	102
34	Striatal Dysfunctions Associated with Mitochondrial DNA Damage in Dopaminergic Neurons in a Mouse Model of Parkinson's Disease. Journal of Neuroscience, 2011, 31, 17649-17658.	3.6	100
35	PGC-1Î±/Î² induced expression partially compensates for respiratory chain defects in cells from patients with mitochondrial disorders. Human Molecular Genetics, 2009, 18, 1805-1812.	2.9	99
36	The role of PGCâ€1 coactivators in aging skeletal muscle and heart. IUBMB Life, 2012, 64, 231-241.	3.4	99

#	Article	IF	Citations
37	Respiration-Deficient Astrocytes Survive As Glycolytic CellsIn Vivo. Journal of Neuroscience, 2017, 37, 4231-4242.	3.6	97
38	Deletion of mitochondrial DNA in patients with combined features of kearns-sayre and MELAS syndromes. Annals of Neurology, 1991, 29, 680-683.	5.3	91
39	The mitochondrial DNA polymerase gamma degrades linear DNA fragments precluding the formation of deletions. Nature Communications, 2018, 9, 2491.	12.8	91
40	Increased mitochondrial biogenesis in muscle improves aging phenotypes in the mtDNA mutator mouse. Human Molecular Genetics, 2012, 21, 2288-2297.	2.9	83
41	A defect in the mitochondrial complex III, but not complex IV, triggers early ROS-dependent damage in defined brain regions. Human Molecular Genetics, 2012, 21, 5066-5077.	2.9	81
42	Endurance exercise is protective for mice with mitochondrial myopathy. Journal of Applied Physiology, 2009, 106, 1712-1719.	2.5	76
43	Mechanisms of Human Mitochondrial DNA Maintenance: The Determining Role of Primary Sequence and Length over Function. Molecular Biology of the Cell, 1999, 10, 3345-3356.	2.1	75
44	Oxidative phosphorylation dysfunction modulates expression of extracellular matrixâ€"remodeling genes and invasion. Carcinogenesis, 2006, 27, 409-418.	2.8	68
45	New Morphological Approaches to the Study of Mitochondrial Encephalomyopathies. Brain Pathology, 1992, 2, 113-119.	4.1	67
46	Increases in mitochondrial biogenesis impair carcinogenesis at multiple levels. Molecular Oncology, 2011, 5, 399-409.	4.6	64
47	Mitochondrial genome changes and neurodegenerative diseases. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 1198-1207.	3.8	64
48	mitoTevâ€TALE: a monomeric DNA editing enzyme toÂreduce mutant mitochondrial DNA levels. EMBO Molecular Medicine, 2018, 10, .	6.9	62
49	Mechanisms of Mitochondrial DNA Deletion Formation. Trends in Genetics, 2019, 35, 235-244.	6.7	62
50	Lack of Cytochrome c in Mouse Fibroblasts Disrupts Assembly/Stability of Respiratory Complexes I and IV. Journal of Biological Chemistry, 2009, 284, 4383-4391.	3.4	58
51	Pioglitazone ameliorates the phenotype of a novel Parkinsonâ€™s disease mouse model by reducing neuroinflammation. Molecular Neurodegeneration, 2016, 11, 25.	10.8	57
52	Long-Term Bezafibrate Treatment Improves Skin and Spleen Phenotypes of the mtDNA Mutator Mouse. PLoS ONE, 2012, 7, e44335.	2.5	57
53	Functional and Molecular Mitochondrial Abnormalities Associated with a C â†' T Transition at Position 3256 of the Human Mitochondrial Genome. Journal of Biological Chemistry, 1996, 271, 2347-2352.	3.4	56
54	Mitochondrial <scp>DNA</scp> heteroplasmy in disease and targeted nucleaseâ€based therapeutic approaches. EMBO Reports, 2020, 21, e49612.	4.5	54

#	Article	IF	Citations
55	Techniques and Pitfalls in the Detection of Pathogenic Mitochondrial DNA Mutations. Journal of Molecular Diagnostics, 2003, 5, 197-208.	2.8	52
56	Mitochondrial Encephalomyopathies. Neurologic Clinics, 1990, 8, 483-506.	1.8	51
57	A Novel Mitochondrial G8313A Mutation Associated with Prominent Initial Gastrointestinal Symptoms and Progressive Encephaloneuropathy. Pediatric Research, 1997, 42, 448-454.	2.3	48
58	Transient systemic mtDNA damage leads to muscle wasting by reducing the satellite cell pool. Human Molecular Genetics, 2013, 22, 3976-3986.	2.9	46
59	Cytochrome c Oxidase Assembly in Primates is Sensitive to Small Evolutionary Variations in Amino Acid Sequence. Molecular Biology and Evolution, 2000, 17, 1508-1519.	8.9	44
60	Mitochondrial targeted meganuclease as a platform to eliminate mutant mtDNA in vivo. Nature Communications, 2021, 12, 3210.	12.8	42
61	BCL-2 Improves Oxidative Phosphorylation and Modulates Adenine Nucleotide Translocation in Mitochondria of Cells Harboring Mutant mtDNA. Journal of Biological Chemistry, 2003, 278, 5639-5645.	3.4	40
62	A chemical enucleation method for the transfer of mitochondrial DNA to ÂÂ cells. Nucleic Acids Research, 2003, 31, 98e-98.	14.5	38
63	Increase in Muscle Mitochondrial Biogenesis Does Not Prevent Muscle Loss but Increased Tumor Size in a Mouse Model of Acute Cancer-Induced Cachexia. PLoS ONE, 2012, 7, e33426.	2.5	38
64	Emerging therapeutic approaches to mitochondrial diseases. Developmental Disabilities Research Reviews, 2010, 16, 219-229.	2.9	37
65	The Use of Mitochondria-Targeted Endonucleases to Manipulate mtDNA. Methods in Enzymology, 2014, 547, 373-397.	1.0	37
66	ï0 tumor cells: a model for studying whether mitochondria are targets for rhodamine 123, doxorubicin, and other drugs. Biochemical Pharmacology, 2000, 60, 1897-1905.	4.4	35
67	Dysfunctional mitochondrial respiration in the wobbler mouse brain. Neuroscience Letters, 2001, 300, 141-144.	2.1	35
68	Mitochondrial DNA Double-Strand Breaks in Oligodendrocytes Cause Demyelination, Axonal Injury, and CNS Inflammation. Journal of Neuroscience, 2017, 37, 10185-10199.	3.6	34
69	Transmitochondrial Technology in Animal Cells. Methods in Cell Biology, 2007, 80, 503-524.	1.1	32
70	The mitochondrial tRNALeu(UUR) mutation in MELAS: a model for pathogenesis. Biochimica Et Biophysica Acta - Bioenergetics, 1992, 1101, 206-209.	1.0	27
71	A metabolic shift induced by a PPAR panagonist markedly reduces the effects of pathogenic mitochondrial tRNA mutations. Journal of Cellular and Molecular Medicine, 2011, 15, 2317-2325.	3.6	27
72	Erythromycin as a potential precipitating agent in the onset of Leber's hereditary optic neuropathy. Mitochondrion, 2004, 4, 31-36.	3.4	26

#	Article	IF	Citations
73	Superoxide released into the mitochondrial matrix. Free Radical Biology and Medicine, 2006, 41, 950-959.	2.9	26
74	Mitochondrial DNA deletion in a girl with manifestations of Kearns-Sayre and Lowe syndromes: An example of phenotypic mimicry?. American Journal of Medical Genetics Part A, 1991, 41, 301-305.	2.4	23
75	Sustained AMPK activation improves muscle function in a mitochondrial myopathy mouse model by promoting muscle fiber regeneration. Human Molecular Genetics, 2016, 25, 3178-3191.	2.9	23
76	A magic bullet to specifically eliminate mutated mitochondrial genomes from patients' cells. EMBO Molecular Medicine, 2014, 6, 434-435.	6.9	22
77	Current strategies towards therapeutic manipulation of mtDNA heteroplasmy. Frontiers in Bioscience - Landmark, 2017, 22, 991-1010.	3.0	22
78	Mitochondrial genome engineering coming-of-age. Trends in Genetics, 2022, 38, 869-880.	6.7	20
79	Structural and functional mitochondrial abnormalities associated with high levels of partially deleted mitochondrial DNAs in somatic cell hybrids. Somatic Cell and Molecular Genetics, 1992, 18, 431-442.	0.7	19
80	Transmitochondrial technology in animal cells. Methods in Cell Biology, 2001, 65, 397-412.	1.1	17
81	Cytochrome oxidase deficiency: progress and problems. , 1994, , 91-115.		16
82	Functional and Structural Features of a Tandem Duplication of the Human mtDNA Promoter Region. American Journal of Human Genetics, 1997, 60, 1363-1372.	6.2	16
83	Mitochondrial methionyl N-formylation affects steady-state levels of oxidative phosphorylation complexes and their organization into supercomplexes. Journal of Biological Chemistry, 2018, 293, 15021-15032.	3.4	15
84	Manipulation of mitochondrial genes and mtDNA heteroplasmy. Methods in Cell Biology, 2020, 155, 441-487.	1.1	15
85	Duplication and triplication with staggered breakpoints in human mitochondrial DNA. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 1998, 1406, 73-80.	3.8	14
86	A helicase is born. Nature Genetics, 2001, 28, 200-201.	21.4	14
87	A novel myopathy-associated mitochondrial DNA mutation altering the conserved size of the tRNAGln anticodon loop. Neuromuscular Disorders, 2000, 10, 488-492.	0.6	12
88	Manipulating mitochondrial genomes in the clinic: playing by different rules. Trends in Cell Biology, 2014, 24, 209-211.	7.9	12
89	A 3â€² UTR Modification of the Mitochondrial Rieske Iron Sulfur Protein in Mice Produces a Specific Skin Pigmentation Phenotype. Journal of Investigative Dermatology, 2008, 128, 2343-2345.	0.7	8
90	Replication of a heteroplasmic population of normal and partially-deleted human mitochondrial genomes. Progress in Cell Research, 1995, 5, 209-215.	0.3	8

#	Article	IF	Citations
91	Mitochondrial DNA Base Editing: Good Editing Things Still Come in Small Packages. Molecular Cell, 2020, 79, 708-709.	9.7	6
92	Cybrid technology. Methods in Cell Biology, 2020, 155, 415-439.	1.1	5
93	Making the most of what you've got: Optimizing residual OXPHOS function in mitochondrial diseases. EMBO Molecular Medicine, 2009, 1, 357-359.	6.9	3
94	Adrenoleukodystrophy and the mitochondrial connection: clues for supplementing Lorenzoâ€™s oil. Brain, 2013, 136, 2339-2341.	7.6	3
95	Targeted Mitochondrial Genome Elimination. , 2018, , 535-563.		2
96	Characteristics of Mitochondrial DNA Diseases. , 1998, , 167-184.		2
97	MitoTALEN reduces mutant mtDNA load and restores tRNAAla levels in a mouse model of heteroplasmic mtDNA mutation. , 0, .		1
98	Mitochondrial Disorders. , 2008, , 1785-1798.		1
99	35 Increased mitochondrial biogenesis as therapy for mitochondrial myopathies. Mitochondrion, 2010, 10, 209.	3.4	0
100	Elimination of Mutant Mitochondrial DNA in Mitochondrial Myopathies Using Gene-Editing Enzymes. , 2019, , 597-620.		0
101	MitoTALENs for mtDNA editing. , 2020, , 481-498.		0