Carlos T Moraes

List of Publications by Year
in descending order

108 papers	11,442 citations	31976 53 h-index	29157 104 g-index
111 all docs	111 docs citations	111 times ranked	10600 citing authors

#	Article	IF	Citations
1	Nuclear-Mitochondrial Interactions. Biomolecules, 2022, 12, 427.	4.0	30
2	Mitochondrial genome engineering coming-of-age. Trends in Genetics, 2022, 38, 869-880.	6.7	20
3	L-Arginine Reduces Nitro-Oxidative Stress in Cultured Cells with Mitochondrial Deficiency. Nutrients, 2021, 13, 534.	4.1	6
4	Biallelic loss-of-function variations in PRDX3 cause cerebellar ataxia. Brain, 2021, 144, 1467-1481.	7.6	18
5	Mitochondrial targeted meganuclease as a platform to eliminate mutant mtDNA in vivo. Nature Communications, 2021, 12, 3210.	12.8	42
6	Treatment with ROS detoxifying gold quantum clusters alleviates the functional decline in a mouse model of Friedreich ataxia. Science Translational Medicine, 2021, 13, .	12.4	7
7	Enhanced glycolysis and GSK3 inactivation promote brain metabolic adaptations following neuronal mitochondrial stress. Human Molecular Genetics, 2021, , .	2.9	0
8	ATAD3A has a scaffolding role regulating mitochondria inner membrane structure and protein assembly. Cell Reports, 2021, 37, 110139.	6.4	34
9	Cybrid technology. Methods in Cell Biology, 2020, 155, 415-439.	1.1	5
10	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
11	Mitochondrial respiration controls neoangiogenesis during wound healing and tumour growth. Nature Communications, 2020, 11, 3653.	12.8	46
12	MitoTALENs for mtDNA editing. , 2020, , 481-498.		0
13	Mitochondrial DNA Base Editing: Good Editing Things Still Come in Small Packages. Molecular Cell, 2020, 79, 708-709.	9.7	6
14	DNAâ€editing enzymes as potential treatments for heteroplasmic mtDNA diseases. Journal of Internal Medicine, 2020, 287, 685-697.	6.0	16
15	Impaired mitophagy links mitochondrial disease to epithelial stress in methylmalonyl-CoA mutase deficiency. Nature Communications, 2020, 11, 970.	12.8	65
16	Mitochondrial <scp>DNA</scp> heteroplasmy in disease and targeted nucleaseâ€based therapeutic approaches. EMBO Reports, 2020, 21, e49612.	4.5	54
17	Manipulation of mitochondrial genes and mtDNA heteroplasmy. Methods in Cell Biology, 2020, 155, 441-487.	1.1	15
18	Myopathy reversion in mice after restauration of mitochondrial complex I. EMBO Molecular Medicine, 2020, 12, e10674.	6.9	29

#	ARTICLE	IF	CITATIONS
19	Metformin delays neurological symptom onset in a mouse model of neuronal complex I deficiency. JCI Insight, 2020, 5, .	5.0	8
20	Genetics: Segregation of Mitochondrial Genomes inÂthe Germline. Current Biology, 2019, 29, R746-R748.	3.9	3
21	Regulation of Respiration and Apoptosis by Cytochrome c Threonine 58 Phosphorylation. Scientific Reports, 2019, 9, 15815.	3.3	39
22	Mechanisms of Mitochondrial DNA Deletion Formation. Trends in Genetics, 2019, 35, 235-244.	6.7	62
23	Photobiomodulation enhancement of cell proliferation at 660â€¯nm does not require cytochrome c oxidase. Journal of Photochemistry and Photobiology B: Biology, 2019, 194, 71-75.	3.8	51
24	Sorting mtDNA Speciesâ€”the Role of nDNA-mtDNA Co-evolution. Cell Metabolism, 2019, 30, 1002-1004.	16.2	1
25	Ablation of Cytochrome c in Adult Forebrain Neurons Impairs Oxidative Phosphorylation Without Detectable Apoptosis. Molecular Neurobiology, 2019, 56, 3722-3735.	4.0	9
26	Overexpression of <scp>PGC</scp>â€1Î± in aging muscle enhances a subset of youngâ€like molecular patterns. Aging Cell, 2018, 17, e12707.	6.7	57
27	SCO2 mutations cause early-onset axonal Charcot-Marie-Tooth disease associated with cellular copper deficiency. Brain, 2018, 141, 662-672.	7.6	46
28	Mitochondrial <scp>DNA</scp> damage and reactive oxygen species in neurodegenerative disease. FEBS Letters, 2018, 592, 728-742.	2.8	289
29	Lack of Parkin Anticipates the Phenotype and Affects Mitochondrial Morphology and mtDNA Levels in a Mouse Model of Parkinson's Disease. Journal of Neuroscience, 2018, 38, 1042-1053.	3.6	58
30	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
31	The mitochondrial DNA polymerase gamma degrades linear DNA fragments precluding the formation of deletions. Nature Communications, 2018, 9, 2491.	12.8	91
32	mitoTevâ€TALE: a monomeric DNA editing enzyme toÂreduce mutant mitochondrial DNA levels. EMBO Molecular Medicine, 2018, 10, .	6.9	62
33	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
34	ATAD3 controls mitochondrial cristae structure, influencing mtDNA replication and cholesterol levels in muscle. Journal of Cell Science, 2018, 131, .	2.0	68
35	Mitochondrial Genome Engineering: The Revolution May Not Be CRISPR-Ized. Trends in Genetics, 2018, 34, 101-110.	6.7	230
36	Image-Based Analysis of Mitochondrial Area and Counting from Adult Mouse Dopaminergic Neurites. Bio-protocol, 2018, 8, e2471.	0.4	3

#	Article	IF	Citations
37	NO control of mitochondrial function in normal and transformed cells. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 573-581.	1.0	63
38	Transient mitochondrial DNA double strand breaks in mice cause accelerated aging phenotypes in a ROS-dependent but p53/p21-independent manner. Cell Death and Differentiation, 2017, 24, 288-299.	11.2	43
39	Respiration-Deficient Astrocytes Survive As Glycolytic CellsIn Vivo. Journal of Neuroscience, 2017, 37, 4231-4242.	3.6	97
40	Mitochondrial DNA Double-Strand Breaks in Oligodendrocytes Cause Demyelination, Axonal Injury, and CNS Inflammation. Journal of Neuroscience, 2017, 37, 10185-10199.	3.6	34
41	Phosphorylation of Cytochrome c Threonine 28 Regulates Electron Transport Chain Activity in Kidney. Journal of Biological Chemistry, 2017, 292, 64-79.	3.4	55
42	Current strategies towards therapeutic manipulation of mtDNA heteroplasmy. Frontiers in Bioscience - Landmark, 2017, 22, 991-1010.	3.0	22
43	The CoQH2/CoQ Ratio Serves as a Sensor of Respiratory Chain Efficiency. Cell Reports, 2016, 15, 197-209.	6.4	215
44	Pioglitazone ameliorates the phenotype of a novel Parkinsonâ€™s disease mouse model by reducing neuroinflammation. Molecular Neurodegeneration, 2016, 11, 25.	10.8	57
45	Enhanced Transcriptional Activity and Mitochondrial Localization of STAT3 Co-induce Axon Regrowth in the Adult Central Nervous System. Cell Reports, 2016, 15, 398-410.	6.4	91
46	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
47	Cre recombinase activity is inhibited in vivo but not ex vivo by a mutation in the asymmetric spacer region of the distal lox<scp>P</scp> site. Genesis, 2015, 53, 695-700.	1.6	1
48	The Mitochondrial Metallochaperone SCO1 Is Required to Sustain Expression of the High-Affinity Copper Transporter CTR1 and Preserve Copper Homeostasis. Cell Reports, 2015, 10, 933-943.	6.4	37
49	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
50	Selective Elimination of Mitochondrial Mutations in the Germline by Genome Editing. Cell, 2015, 161, 459-469.	28.9	245
51	Mechanisms linking mtDNA damage and aging. Free Radical Biology and Medicine, 2015, 85, 250-258.	2.9	152
52	A magic bullet to specifically eliminate mutated mitochondrial genomes from patients' cells. EMBO Molecular Medicine, 2014, 6, 434-435.	6.9	22
53	The Use of Mitochondria-Targeted Endonucleases to Manipulate mtDNA. Methods in Enzymology, 2014, 547, 373-397.	1.0	37
54	Manipulating mitochondrial genomes in the clinic: playing by different rules. Trends in Cell Biology, 2014, 24, 209-211.	7.9	12

#	Article	IF	Citations
55	Mitochondrial genome changes and neurodegenerative diseases. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 1198-1207.	3.8	64
56	Mutations of cytochrome c identified in patients with thrombocytopenia THC4 affect both apoptosis and cellular bioenergetics. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 269-274.	3.8	65
57	Partial complex I deficiency due to the CNS conditional ablation of Ndufa5 results in a mild chronic encephalopathy but no increase in oxidative damage. Human Molecular Genetics, 2014, 23, 1399-1412.	2.9	33
58	Specific elimination of mutant mitochondrial genomes in patient-derived cells by mitoTALENs. Nature Medicine, 2013, 19, 1111-1113.	30.7	350
59	Translational research in primary mitochondrial diseases: Challenges and opportunities. Mitochondrion, 2013, 13, 945-952.	3.4	3
60	Mitochondrial DNA damage in a mouse model of Alzheimer's disease decreases amyloid beta plaque formation. Neurobiology of Aging, 2013, 34, 2399-2407.	3.1	38
61	Adrenoleukodystrophy and the mitochondrial connection: clues for supplementing Lorenzoâ€™s oil. Brain, 2013, 136, 2339-2341.	7.6	3
62	Nitric Oxide Synthesis Is Increased in Cybrid Cells with m.3243A>G Mutation. International Journal of Molecular Sciences, 2013, 14, 394-410.	4.1	14
63	Somatic mtDNA Mutation Spectra in the Aging Human Putamen. PLoS Genetics, 2013, 9, e1003990.	3.5	69
64	Manipulation of mtDNA heteroplasmy in all striated muscles of newborn mice by AAV9-mediated delivery of a mitochondria-targeted restriction endonuclease. Gene Therapy, 2012, 19, 1101-1106.	4.5	71
65	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
66	Glycolytic oligodendrocytes maintain myelin and long-term axonal integrity. Nature, 2012, 485, 517-521.	27.8	1,120
67	The role of PGCâ€1 coactivators in aging skeletal muscle and heart. IUBMB Life, 2012, 64, spcone.	3.4	0
68	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
69	The Striatum Is Highly Susceptible to Mitochondrial Oxidative Phosphorylation Dysfunctions. Journal of Neuroscience, 2011, 31, 9895-9904.	3.6	99
70	Organ-specific shifts in mtDNA heteroplasmy following systemic delivery of a mitochondria-targeted restriction endonuclease. Gene Therapy, 2010, 17, 713-720.	4.5	93
71	The mtDNA Mutation Spectrum of the Progeroid Polg Mutator Mouse Includes Abundant Control Region Multimers. Cell Metabolism, 2010, 12, 675-682.	16.2	86
72	Inhibition of Akt Increases the Sensitivity of Acute Lymphoblastic Leukemia (ALL) to the Glycolytic Inhibitor 2-Deoxy-D-Glucose (2-DG). Blood, 2010, 116, 3254-3254.	1.4	0

#	Article	IF	Citations
73	In vivo methylation of mtDNA reveals the dynamics of proteinâ€“mtDNA interactions. Nucleic Acids Research, 2009, 37, 6701-6715.	14.5	100
74	Mechanisms of formation and accumulation of mitochondrial DNA deletions in aging neurons. Human Molecular Genetics, 2009, 18, 1028-1036.	2.9	162
75	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
76	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
77	Pathophysiology and fate of hepatocytes in a mouse model of mitochondrial hepatopathies. Gut, 2008, 57, 232-242.	12.1	42
78	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
79	Modulating mtDNA heteroplasmy by mitochondria-targeted restriction endonucleases in a â€˜differential multiple cleavage-siteâ€™ model. Gene Therapy, 2007, 14, 1309-1318.	4.5	84
80	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
81	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
82	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
83	Defects in the biosynthesis of mitochondrial heme c and heme a in yeast and mammals. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1659, 153-159.	1.0	47
84	Respiratory Complex III Is Required to Maintain Complex I in Mammalian Mitochondria. Molecular Cell, 2004, 13, 805-815.	9.7	402
85	Techniques and Pitfalls in the Detection of Pathogenic Mitochondrial DNA Mutations. Journal of Molecular Diagnostics, 2003, 5, 197-208.	2.8	52
86	Limitations of Allotopic Expression of Mitochondrial Genes in Mammalian Cells. Genetics, 2003, 165, 707-720.	2.9	96
87	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
88	Mitochondrial DNA structure and function. International Review of Neurobiology, 2002, 53, 3-23.	2.0	17
89	Bcl-2 Suppresses Oxidative Phosphorylation Defects Caused by Mitochondrial DNA Mutations. Scientific World Journal, The, 2001, 1, 39-39.	2.1	2
90	A helicase is born. Nature Genetics, 2001, 28, 200-201.	21.4	14

#	Article	IF	Citations
91	What regulates mitochondrial DNA copy number in animal cells?. Trends in Genetics, 2001, 17, 199-205.	6.7	268
92	Manipulating mitochondrial DNA heteroplasmy by a mitochondrially targeted restriction endonuclease. Human Molecular Genetics, 2001, 10, 3093-3099.	2.9	160
93	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
94	An outâ€ofâ€frame cytochrome b 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	2
95	An out-of-frame cytochrome b 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, 774-81.	5.3	58
96	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
97	Suppression of a mitochondrial tRNA gene mutation phenotype associated with changes in the nuclear background. Human Molecular Genetics, 1999, 8, 1117-1124.	2.9	57
98	Simultaneous Transfer of Mitochondrial DNA and Single Chromosomes in Somatic Cells: A Novel Approach for the Study of Defects in Nuclear-Mitochondrial Communication. Human Molecular Genetics, 1998, 7, 1801-1808.	2.9	17
99	Identification of a mutation in the mitochondrial tRNACys gene associated with mitochondrial encephalopathy. Human Mutation, 1996, 7, 158-163.	2.5	51
100	Phenotype-genotype correlations in skeletal muscle of patients with mtDNA deletions. Muscle and Nerve, 1995, 18, S150-S153.	2.2	32
101	Atypical clinical presentations associated with the MELAS mutation at position 3243 of human mitochondrial DNA. Neuromuscular Disorders, 1993, 3, 43-50.	0.6	219
102	Mitochondrial Encephalomyopathies. Archives of Neurology, 1993, 50, 1197-1208.	4.5	346
103	A direct repeat is a hotspot for large-scale deletion of human mitochondrial DNA. Science, 1989, 244, 346-349.	12.6	566
104	Heteroplasmy of mitochondrial genomes in clonal cultures from patients with Kearns-Sayre syndrome. Biochemical and Biophysical Research Communications, 1989, 160, 765-771.	2.1	98
105	Mitochondrial DNA Deletions in Progressive External Ophthalmoplegia and Kearns-Sayre Syndrome. New England Journal of Medicine, 1989, 320, 1293-1299.	27.0	1,012
106	Deletions of mitochondrial DNA in Kearnsâ€Sayre syndrome. Neurology, 1988, 38, 1339-1339.	1.1	624
107	Deletions of mitochondrial DNA in Kearnsâ€Sayre syndrome. Neurology, 1988, 38, 1339-1339.	1.1	445
108	MitoTALEN reduces mutant mtDNA load and restores tRNAAla levels in a mouse model of heteroplasmic mtDNA mutation. , 0, .		1