

# Luis C LÃ³pez

## List of Publications by Year in descending order

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102  
papers

8,521  
citations

31974

53  
h-index

45310

90  
g-index

104  
all docs

104  
docs citations

104  
times ranked

8827  
citing authors

#	ARTICLE	IF	CITATIONS
1	Extrapineal melatonin: sources, regulation, and potential functions. Cellular and Molecular Life Sciences, 2014, 71, 2997-3025.	5.4	766
2	Extrapineal melatonin: analysis of its subcellular distribution and daily fluctuations. Journal of Pineal Research, 2012, 52, 217-227.	7.4	484
3	Leigh Syndrome with Nephropathy and CoQ10 Deficiency Due to decaprenyl diphosphate synthase subunit 2 (PDSS2) Mutations. American Journal of Human Genetics, 2006, 79, 1125-1129.	6.2	359
4	ADCK3, an Ancestral Kinase, Is Mutated in a Form of Recessive Ataxia Associated with Coenzyme Q10 Deficiency. American Journal of Human Genetics, 2008, 82, 661-672.	6.2	290
5	Melatonin protects the mitochondria from oxidative damage reducing oxygen consumption, membrane potential, and superoxide anion production. Journal of Pineal Research, 2009, 46, 188-198.	7.4	228
6	Melatonin-mitochondria Interplay in Health and Disease. Current Topics in Medicinal Chemistry, 2011, 11, 221-240.	2.1	216
7	A Nonsense Mutation in COQ9 Causes Autosomal-Recessive Neonatal-Onset Primary Coenzyme Q10 Deficiency: A Potentially Treatable Form of Mitochondrial Disease. American Journal of Human Genetics, 2009, 84, 558-566.	6.2	206
8	Heterogeneity of Coenzyme Q <sub>10</sub> Deficiency. Archives of Neurology, 2012, 69, 978-83.	4.5	192
9	Disruption of the NF- $\kappa$ B/NLRP3 connection by melatonin requires retinoid-related orphan receptor- $\alpha$ and blocks the septic response in mice. FASEB Journal, 2015, 29, 3863-3875.	0.5	190
10	Respiratory chain dysfunction and oxidative stress correlate with severity of primary CoQ <sub>10</sub> deficiency. FASEB Journal, 2008, 22, 1874-1885.	0.5	150
11	Reactive oxygen species, oxidative stress, and cell death correlate with level of CoQ <sub>10</sub> deficiency. FASEB Journal, 2010, 24, 3733-3743.	0.5	142
12	Inhibition of neuronal nitric oxide synthase activity by N <sup>1</sup> -acetyl-5-acetamethoxykynuramine, a brain metabolite of melatonin. Journal of Neurochemistry, 2006, 98, 2023-2033.	3.9	141
13	Combination of melatonin and rapamycin for head and neck cancer therapy: Suppression of Akt/mTOR pathway activation, and activation of mitophagy and apoptosis via mitochondrial function regulation. Journal of Pineal Research, 2018, 64, e12461.	7.4	131
14	Melatonin treatment normalizes plasma pro-inflammatory cytokines and nitrosative/oxidative stress in patients suffering from Duchenne muscular dystrophy. Journal of Pineal Research, 2010, 48, 282-289.	7.4	130
15	Melatonin role in the mitochondrial function. Frontiers in Bioscience - Landmark, 2007, 12, 947.	3.0	130
16	Melatonin counteracts inducible mitochondrial nitric oxide synthase-dependent mitochondrial dysfunction in skeletal muscle of septic mice. Journal of Pineal Research, 2006, 40, 71-78.	7.4	129
17	Attenuation of cardiac mitochondrial dysfunction by melatonin in septic mice. FEBS Journal, 2007, 274, 2135-2147.	4.7	127
18	Same molecule but different expression: aging and sepsis trigger NLRP3 inflammasome activation, a target of melatonin. Journal of Pineal Research, 2016, 60, 193-205.	7.4	125

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19	Unbalanced deoxynucleotide pools cause mitochondrial DNA instability in thymidine phosphorylase-deficient mice. <i>Human Molecular Genetics</i> , 2009, 18, 714-722.	2.9	123
20	Long-term melatonin administration protects brain mitochondria from aging. <i>Journal of Pineal Research</i> , 2009, 47, 192-200.	7.4	121
21	Chronic melatonin treatment reduces the age-dependent inflammatory process in senescence-accelerated mice. <i>Journal of Pineal Research</i> , 2007, 42, 272-279.	7.4	120
22	ETFDH mutations, CoQ10 levels, and respiratory chain activities in patients with riboflavin-responsive multiple acyl-CoA dehydrogenase deficiency. <i>Neuromuscular Disorders</i> , 2009, 19, 212-216.	0.6	118
23	Melatonin blunts the mitochondrial NLRP3 connection and protects against radiation-induced oral mucositis. <i>Journal of Pineal Research</i> , 2015, 58, 34-49.	7.4	118
24	Mitochondrial COQ9 is a lipid-binding protein that associates with COQ7 to enable coenzyme Q biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E4697-705.	7.1	113
25	Human CoQ10 deficiencies. <i>BioFactors</i> , 2008, 32, 113-118.	5.4	110
26	Melatonin and its brain metabolite N <sup>1</sup> -acetyl-5-methoxykynuramine prevent mitochondrial nitric oxide synthase induction in parkinsonian mice. <i>Journal of Neuroscience Research</i> , 2009, 87, 3002-3010.	2.9	106
27	Cellular mechanisms involved in the melatonin inhibition of HT-29 human colon cancer cell proliferation in culture. <i>Journal of Pineal Research</i> , 2007, 43, 195-205.	7.4	102
28	Identification of an inducible nitric oxide synthase in diaphragm mitochondria from septic micelts relation with mitochondrial dysfunction and prevention by melatonin. <i>International Journal of Biochemistry and Cell Biology</i> , 2006, 38, 267-278.	2.8	101
29	Thymidine kinase 2 (H126N) knockin mice show the essential role of balanced deoxynucleotide pools for mitochondrial DNA maintenance. <i>Human Molecular Genetics</i> , 2008, 17, 2433-2440.	2.9	101
30	Chronic melatonin treatment prevents age-dependent cardiac mitochondrial dysfunction in senescence-accelerated mice. <i>Free Radical Research</i> , 2007, 41, 15-24.	3.3	99
31	Pharmacological utility of melatonin in the treatment of septic shock: experimental and clinical evidence. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 58, 1153-1165.	2.4	98
32	Treatment of CoQ10 Deficient Fibroblasts with Ubiquinone, CoQ Analogs, and Vitamin C: Time- and Compound-Dependent Effects. <i>PLoS ONE</i> , 2010, 5, e11897.	2.5	92
33	Improved mitochondrial function and increased life span after chronic melatonin treatment in senescent prone mice. <i>Experimental Gerontology</i> , 2008, 43, 749-756.	2.8	88
34	Melatonin administration to wild-type mice and nontreated NLRP3 mutant mice share similar inhibition of the inflammatory response during sepsis. <i>Journal of Pineal Research</i> , 2017, 63, e12410.	7.4	88
35	Dysfunctional Coq9 protein causes predominant encephalomyopathy associated with CoQ deficiency. <i>Human Molecular Genetics</i> , 2013, 22, 1233-1248.	2.9	87
36	Melatonin plus physical exercise are highly neuroprotective in the 3xTg-AD mouse. <i>Neurobiology of Aging</i> , 2012, 33, 1124.e13-1124.e29.	3.1	86

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37	Mitochondrial DNA and inflammatory diseases. <i>Human Genetics</i> , 2012, 131, 161-173.	3.8	86
38	Melatonin protects rats from radiotherapy-induced small intestine toxicity. <i>PLoS ONE</i> , 2017, 12, e0174474.	2.5	86
39	Melatonin, clock genes and mitochondria in sepsis. <i>Cellular and Molecular Life Sciences</i> , 2017, 74, 3965-3987.	5.4	84
40	Deoxypyrimidine monophosphate bypass therapy for thymidine kinase 2 deficiency. <i>EMBO Molecular Medicine</i> , 2014, 6, 1016-1027.	6.9	79
41	Melatonin enhances neural stem cell differentiation and engraftment by increasing mitochondrial function. <i>Journal of Pineal Research</i> , 2017, 63, e12415.	7.4	78
42	The clinical heterogeneity of coenzyme Q <sub>10</sub> deficiency results from genotypic differences in the <i>Coq9</i> gene. <i>EMBO Molecular Medicine</i> , 2015, 7, 670-687.	6.9	77
43	Clinical and genetic analysis of lipid storage myopathies. <i>Muscle and Nerve</i> , 2009, 39, 333-342.	2.2	74
44	Acute and chronic mitochondrial respiratory chain deficiency differentially regulate lysosomal biogenesis. <i>Scientific Reports</i> , 2017, 7, 45076.	3.3	74
45	Cord blood-derived CD34+ hematopoietic cells with low mitochondrial mass are enriched in hematopoietic repopulating stem cell function. <i>Haematologica</i> , 2013, 98, 1022-1029.	3.5	72
46	The beneficial effects of melatonin against heart mitochondrial impairment during sepsis: inhibition of iNOS and preservation of nNOS. <i>Journal of Pineal Research</i> , 2014, 56, 71-81.	7.4	72
47	Melatonin Enhances Cisplatin and Radiation Cytotoxicity in Head and Neck Squamous Cell Carcinoma by Stimulating Mitochondrial ROS Generation, Apoptosis, and Autophagy. <i>Oxidative Medicine and Cellular Longevity</i> , 2019, 2019, 1-12.	4.0	65
48	Thymidine and deoxyuridine accumulate in tissues of patients with mitochondrial neurogastrointestinal encephalomyopathy (MNGIE). <i>FEBS Letters</i> , 2007, 581, 3410-3414.	2.8	64
49	Analysis of the daily changes of melatonin receptors in the rat liver. <i>Journal of Pineal Research</i> , 2013, 54, 313-321.	7.4	64
50	Melatonin rescues zebrafish embryos from the parkinsonian phenotype restoring the parkin/PINK1/DJ-1/MUL1 network. <i>Journal of Pineal Research</i> , 2016, 61, 96-107.	7.4	64
51	Melatonin administration prevents cardiac and diaphragmatic mitochondrial oxidative damage in senescence-accelerated mice. <i>Journal of Endocrinology</i> , 2007, 194, 637-643.	2.6	61
52	A review of the melatonin functions in zebrafish physiology. <i>Journal of Pineal Research</i> , 2014, 57, 1-9.	7.4	60
53	Mechanisms of N-methyl-D-Aspartate Receptor Inhibition by Melatonin In the Rat Striatum. <i>Journal of Neuroendocrinology</i> , 2004, 16, 929-935.	2.6	59
54	CoQ deficiency causes disruption of mitochondrial sulfide oxidation, a new pathomechanism associated with this syndrome. <i>EMBO Molecular Medicine</i> , 2017, 9, 78-95.	6.9	59

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55	Ubiquinol-10 ameliorates mitochondrial encephalopathy associated with CoQ deficiency. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014, 1842, 893-901.	3.8	56
56	Identification of morphological markers of sarcopenia at early stage of aging in skeletal muscle of mice. <i>Experimental Gerontology</i> , 2016, 83, 22-30.	2.8	55
57	Age-dependent lipopolysaccharide-induced iNOS expression and multiorgan failure in rats: Effects of melatonin treatment. <i>Experimental Gerontology</i> , 2006, 41, 1165-1173.	2.8	54
58	Melatonin and Nitric Oxide: Two Required Antagonists for Mitochondrial Homeostasis. <i>Endocrine</i> , 2005, 27, 159-168.	2.2	53
59	The Role of Mitochondria in Brain Aging and the Effects of Melatonin. <i>Current Neuropharmacology</i> , 2010, 8, 182-193.	2.9	52
60	The Paradox of Coenzyme Q10 in Aging. <i>Nutrients</i> , 2019, 11, 2221.	4.1	50
61	Antioxidant effect of exercise: Exploring the role of the mitochondrial complex I superassembly. <i>Redox Biology</i> , 2017, 13, 477-481.	9.0	46
62	Oxidative stress status, clinical outcome, and Î²-â€œglobin gene cluster haplotypes in pediatric patients with sickle cell disease. <i>European Journal of Haematology</i> , 2010, 85, 529-537.	2.2	43
63	Melatonin protects lung mitochondria from aging. <i>Age</i> , 2012, 34, 681-692.	3.0	41
64	The Role of Sulfide Oxidation Impairment in the Pathogenesis of Primary CoQ Deficiency. <i>Frontiers in Physiology</i> , 2017, 8, 525.	2.8	41
65	Melatonin restores the mitochondrial production of ATP in septic mice. <i>Neuroendocrinology Letters</i> , 2006, 27, 623-30.	0.2	39
66	Lack of NLRP3 Inflammasome Activation Reduces Age-Dependent Sarcopenia and Mitochondrial Dysfunction, Favoring the Prophylactic Effect of Melatonin. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2019, 74, 1699-1708.	3.6	38
67	Metabolic Targets of Coenzyme Q10 in Mitochondria. <i>Antioxidants</i> , 2021, 10, 520.	5.1	37
68	Melatonin treatment counteracts the hyperoxidative status in erythrocytes of patients suffering from Duchenne muscular dystrophy. <i>Clinical Biochemistry</i> , 2011, 44, 853-858.	1.9	36
69	CoQ10 supplementation rescues nephrotic syndrome through normalization of H2S oxidation pathway. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2018, 1864, 3708-3722.	3.8	35
70	Mitochondrial impairment and melatonin protection in parkinsonian mice do not depend of inducible or neuronal nitric oxide synthases. <i>PLoS ONE</i> , 2017, 12, e0183090.	2.5	34
71	Permeabilized myocardial fibers as model to detect mitochondrial dysfunction during sepsis and melatonin effects without disruption of mitochondrial network. <i>Mitochondrion</i> , 2016, 27, 56-63.	3.4	31
72	Determination of Coenzyme Q<sub>10</sub>, Coenzyme Q<sub>9</sub>, and Melatonin Contents in Virgin Argan Oils: Comparison with Other Edible Vegetable Oils. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 12102-12108.	5.2	30

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73	Synergism between melatonin and atorvastatin against endothelial cell damage induced by lipopolysaccharide. <i>Journal of Pineal Research</i> , 2011, 51, 324-330.	7.4	30
74	Comparative analysis of minor bioactive constituents (CoQ10, tocopherols and phenolic compounds) in Arbequina extra virgin olive oils from Brazil and Spain. <i>Journal of Food Composition and Analysis</i> , 2017, 63, 47-54.	3.9	29
75	Rapamycin administration is not a valid therapeutic strategy for every case of mitochondrial disease. <i>EBioMedicine</i> , 2019, 42, 511-523.	6.1	29
76	The Protective Effect of Melatonin Against Age-Associated, Sarcopenia-Dependent Tubular Aggregate Formation, Lactate Depletion, and Mitochondrial Changes. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2018, 73, 1330-1338.	3.6	28
77	Protective effects of melatonin against oxidative damage induced by Egyptian cobra ( <i>Naja haje</i> ) crude venom in rats. <i>Acta Tropica</i> , 2015, 143, 58-65.	2.0	27
78	Î²â€•RA reduces DMQ/CoQ ratio and rescues the encephalopathic phenotype in Coq9 <sup>R239X</sup> mice. <i>EMBO Molecular Medicine</i> , 2019, 11, .	6.9	27
79	Detection of 6-demethoxyubiquinone in CoQ10 deficiency disorders: Insights into enzyme interactions and identification of potential therapeutics. <i>Molecular Genetics and Metabolism</i> , 2017, 121, 216-223.	1.1	25
80	Pathomechanisms in Coenzyme Q<sub>10</sub>-Deficient Human Fibroblasts. <i>Molecular Syndromology</i> , 2014, 5, 163-169.	0.8	23
81	Lack of aprataxin impairs mitochondrial functions via downregulation of the APE1/NRF1/NRF2 pathway. <i>Human Molecular Genetics</i> , 2015, 24, 4516-4529.	2.9	23
82	Composition and Antioxidant Properties of Spanish Extra Virgin Olive Oil Regarding Cultivar, Harvest Year and Crop Stage. <i>Antioxidants</i> , 2019, 8, 217.	5.1	23
83	Identification of mitochondrial deficits and melatonin targets in liver of septic mice by high-resolution respirometry. <i>Life Sciences</i> , 2015, 121, 158-165.	4.3	22
84	Protective effects of synthetic kynurenines on 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine-induced parkinsonism in mice. <i>Brain Research Bulletin</i> , 2011, 85, 133-140.	3.0	18
85	Early gender differences in the redox status of the brain mitochondria with age: effects of melatonin therapy. <i>Hormone Molecular Biology and Clinical Investigation</i> , 2013, 16, 91-100.	0.7	18
86	Coenzyme Q10 modulates sulfide metabolism and links the mitochondrial respiratory chain to pathways associated to one carbon metabolism. <i>Human Molecular Genetics</i> , 2020, 29, 3296-3311.	2.9	16
87	Bypassing human CoQ 10 deficiency. <i>Molecular Genetics and Metabolism</i> , 2018, 123, 289-291.	1.1	15
88	Assessment of Thymidine Phosphorylase Function: Measurement of Plasma Thymidine (and Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 T	0.9	14
89	<i>In Vivo</i> Determination of Mitochondrial Respiration in 1-Methyl-4-Phenyl-1,2,3,6-Tetrahydropyridine-Treated Zebrafish Reveals the Efficacy of Melatonin in Restoring Mitochondrial Normalcy. <i>Zebrafish</i> , 2018, 15, 15-26.	1.1	14
90	Hydroxytyrosol influences exercise-induced mitochondrial respiratory complex assembly into supercomplexes in rats. <i>Free Radical Biology and Medicine</i> , 2019, 134, 304-310.	2.9	14

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91	Abnormalities of hydrogen sulfide and glutathione pathways in mitochondrial dysfunction. Journal of Advanced Research, 2021, 27, 79-84.	9.5	11
92	Argan Oil-contained Antioxidants for Human Mitochondria. Natural Product Communications, 2013, 8, 1934578X1300800.	0.5	10
93	Reduction in the levels of CoQ biosynthetic proteins is related to an increase in lifespan without evidence of hepatic mitohormesis. Scientific Reports, 2018, 8, 14013.	3.3	9
94	Î²-RAs Target Mitochondrial Metabolism and Adipogenesis, Leading to Therapeutic Benefits against CoQ Deficiency and Age-Related Overweight. Biomedicines, 2021, 9, 1457.	3.2	8
95	Argan oil-contained antioxidants for human mitochondria. Natural Product Communications, 2013, 8, 47-50.	0.5	8
96	Exposure to non-persistent pesticides, BDNF, and behavioral function in adolescent males: Exploring a novel effect biomarker approach. Environmental Research, 2022, 211, 113115.	7.5	8
97	Animal Models of Coenzyme Q Deficiency: Mechanistic and Translational Learnings. Antioxidants, 2021, 10, 1687.	5.1	6
98	Preliminary evidence suggesting that nonmetallic and metallic nanoparticle devices protect against the effects of environmental electromagnetic radiation by reducing oxidative stress and inflammatory status. European Journal of Integrative Medicine, 2016, 8, 835-840.	1.7	3
99	Gene Therapy Corrects Mitochondrial Dysfunction in Hematopoietic Progenitor Cells and Fibroblasts from Coq9R239X Mice. PLoS ONE, 2016, 11, e0158344.	2.5	2
100	The Q-junction and the inflammatory response are critical pathological and therapeutic factors in CoQ deficiency. Redox Biology, 2022, 55, 102403.	9.0	2
101	Coenzyme Q10 Deficiency. , 2019, , 169-182.		0
102	Factors influencing inflammatory mediators' secretion after pediatric burn injury. Journal of Pediatric Biochemistry, 2010, 01, 277-278.	0.2	0