Antoni Barrientos

List of Publications by Year
in descending order

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77 papers	6,398 citations	57758 44 h-index	71685 76 g-index
78 all docs	78 docs citations	78 times ranked	6922 citing authors

#	Article	IF	Citations
1	Titrating the Effects of Mitochondrial Complex I Impairment in the Cell Physiology. Journal of Biological Chemistry, 1999, 274, 16188-16197.	3.4	342
2	A mutant mitochondrial respiratory chain assembly protein causes complex III deficiency in patients with tubulopathy, encephalopathy and liver failure. Nature Genetics, 2001, 29, 57-60.	21.4	297
3	Regulation of Yeast Chronological Life Span by TORC1 via Adaptive Mitochondrial ROS Signaling. Cell Metabolism, 2011, 13, 668-678.	16.2	273
4	A mutation in the human heme A:farnesyltransferase gene (COX10) causes cytochrome c oxidase deficiency. Human Molecular Genetics, 2000, 9, 1245-1249.	2.9	261
5	Mitochondrial Complex I Plays an Essential Role in Human Respirasome Assembly. Cell Metabolism, 2012, 15, 324-335.	16.2	234
6	Mitochondrial cytochrome c oxidase biogenesis: Recent developments. Seminars in Cell and Developmental Biology, 2018, 76, 163-178.	5.0	225
7	In vivo and in organello assessment of OXPHOS activities. Methods, 2002, 26, 307-316.	3.8	222
8	Assembly of mitochondrial cytochromec-oxidase, a complicated and highly regulated cellular process. American Journal of Physiology - Cell Physiology, 2006, 291, C1129-C1147.	4.6	214
9	Biogenesis and assembly of eukaryotic cytochrome c oxidase catalytic core. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 883-897.	1.0	202
10	Mitochondrial copper metabolism and delivery to cytochrome c oxidase. IUBMB Life, 2008, 60, 421-429.	3.4	199
11	Mss51p and Cox14p jointly regulate mitochondrial Cox1p expression in Saccharomyces cerevisiae. EMBO Journal, 2004, 23, 3472-3482.	7.8	179
12	Cytochrome oxidase in health and disease. Gene, 2002, 286, 53-63.	2.2	175
13	Human Xenomitochondrial Cybrids. Journal of Biological Chemistry, 1998, 273, 14210-14217.	3.4	174
14	Mitochondrial Respiratory Thresholds Regulate Yeast Chronological Life Span and its Extension by Caloric Restriction. Cell Metabolism, 2012, 16, 55-67.	16.2	156
15	Shy1p is necessary for full expression of mitochondrial COX1 in the yeast model of Leigh's syndrome. EMBO Journal, 2002, 21, 43-52.	7.8	149
16	Cytochrome c oxidase biogenesis: New levels of regulation. IUBMB Life, 2008, 60, 557-568.	3.4	143
17	Reduced steady-state levels of mitochondrial RNA and increased mitochondrial DNA amount in human brain with aging. Molecular Brain Research, 1997, 52, 284-289.	2.3	140
18	Cytotoxicity of a mutant huntingtin fragment in yeast involves early alterations in mitochondrial OXPHOS complexes II and III. Human Molecular Genetics, 2006, 15, 3063-3081.	2.9	129

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19	Dietary restriction, mitochondrial function and aging: from yeast to humans. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1434-1447.	1.0	111
20	The Human Mitochondrial DEAD-Box Protein DDX28 Resides in RNA Granules and Functions in Mitoribosome Assembly. Cell Reports, 2015, 10, 854-864.	6.4	109
21	Ischemic Preconditioning Targets the Respiration of Synaptic Mitochondria via Protein Kinase CÎµ. Journal of Neuroscience, 2008, 28, 4172-4182.	3.6	104
22	Functional Constraints of Nuclear-Mitochondrial DNA Interactions in Xenomitochondrial Rodent Cell Lines. Journal of Biological Chemistry, 2000, 275, 31520-31527.	3.4	103
23	Absence of Relationship between the Level of Electron Transport Chain Activities and Aging in Human Skeletal Muscle. Biochemical and Biophysical Research Communications, 1996, 229, 536-539.	2.1	97
24	Suppression mechanisms of COX assembly defects in yeast and human: Insights into the COX assembly process. Biochimica Et Biophysica Acta - Molecular Cell Research, 2009, 1793, 97-107.	4.1	91
25	Human COX20 cooperates with SCO1 and SCO2 to mature COX2 and promote the assembly of cytochrome c oxidase. Human Molecular Genetics, 2014, 23, 2901-2913.	2.9	82
26	Mss51 and Ssc1 Facilitate Translational Regulation of Cytochrome c Oxidase Biogenesis. Molecular and Cellular Biology, 2010, 30, 245-259.	2.3	72
27	Respiratory supercomplexes enhance electron transport by decreasing cytochrome c diffusion distance. EMBO Reports, 2020, 21, e51015.	4.5	71
28	Cox25 Teams Up with Mss51, Ssc1, and Cox14 to Regulate Mitochondrial Cytochrome c Oxidase Subunit 1 Expression and Assembly in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2011, 286, 555-566.	3.4	69
29	In Vivo Regulation of Oxidative Phosphorylation in Cells Harboring a Stop-codon Mutation in Mitochondrial DNA-encoded Cytochrome c Oxidase Subunit I. Journal of Biological Chemistry, 2001, 276, 46925-46932.	3.4	66
30	A Heme-Sensing Mechanism in the Translational Regulation of Mitochondrial Cytochrome c Oxidase Biogenesis. Cell Metabolism, 2012, 16, 801-813.	16.2	66
31	Yeast Models of Human Mitochondrial Diseases. IUBMB Life, 2003, 55, 83-95.	3.4	65
32	MTG1 Codes for a Conserved Protein Required for Mitochondrial Translation. Molecular Biology of the Cell, 2003, 14, 2292-2302.	2.1	64
33	A <scp>CMC</scp> 1 â€knockout reveals translationâ€independent control of human mitochondrial complex <scp>IV</scp> biogenesis. EMBO Reports, 2017, 18, 477-494.	4.5	56
34	Redox and Reactive Oxygen Species Regulation of Mitochondrial CytochromecOxidase Biogenesis. Antioxidants and Redox Signaling, 2013, 19, 1940-1952.	5.4	55
35	Human COX7A2L Regulates Complex III Biogenesis and Promotes Supercomplex Organization Remodeling without Affecting Mitochondrial Bioenergetics. Cell Reports, 2018, 25, 1786-1799.e4.	6.4	55
36	Aberrant Translation of CytochromecOxidase Subunit 1 mRNA Species in the Absence of Mss51p in the YeastSaccharomyces cerevisiae. Molecular Biology of the Cell, 2007, 18, 523-535.	2.1	54

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37	Role of Cytochrome c in Apoptosis: Increased Sensitivity to Tumor Necrosis Factor Alpha Is Associated with Respiratory Defects but Not with Lack of Cytochrome c Release. Molecular and Cellular Biology, 2007, 27, 1771-1783.	2.3	54
38	Multiple pathways coordinate assembly of human mitochondrial complex IV and stabilization of respiratory supercomplexes. EMBO Journal, 2020, 39, e103912.	7.8	54
39	Cmc1p Is a Conserved Mitochondrial Twin CX₉C Protein Involved in Cytochrome c Oxidase Biogenesis. Molecular and Cellular Biology, 2008, 28, 4354-4364.	2.3	53
40	The DEAD-box helicase Mss116 plays distinct roles in mitochondrial ribogenesis and mRNA-specific translation. Nucleic Acids Research, 2017, 45, 6628-6643.	14.5	53
41	Yeast Mitoribosome Large Subunit Assembly Proceeds by Hierarchical Incorporation of Protein Clusters and Modules on the Inner Membrane. Cell Metabolism, 2018, 27, 645-656.e7.	16.2	53
42	Human mitochondrial cytochrome c oxidase assembly factor COX18 acts transiently as a membrane insertase within the subunit 2 maturation module. Journal of Biological Chemistry, 2017, 292, 7774-7783.	3.4	51
43	Distinct Roles of Mitochondrial HIGD1A and HIGD2A in Respiratory Complex and Supercomplex Biogenesis. Cell Reports, 2020, 31, 107607.	6.4	49
44	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
45	hCOA3 Stabilizes Cytochrome c Oxidase 1 (COX1) and Promotes Cytochrome c Oxidase Assembly in Human Mitochondria. Journal of Biological Chemistry, 2013, 288, 8321-8331.	3.4	46
46	Transcriptional activators HAP/NF-Y rescue a cytochrome c oxidase defect in yeast and human cells. Human Molecular Genetics, 2008, 17, 775-788.	2.9	45
47	Quick and reliable assessment of chronological life span in yeast cell populations by flow cytometry. Mechanisms of Ageing and Development, 2011, 132, 315-323.	4.6	45
48	Defects in mitochondrial fatty acid synthesis result in failure of multiple aspects of mitochondrial biogenesis in <scp>S</scp>accharomyces cerevisiae. Molecular Microbiology, 2013, 90, 824-840.	2.5	45
49	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
50	Suppression of polyglutamineâ€induced cytotoxicity inSaccharomyces cerevisiaeby enhancement of mitochondrial biogenesis. FASEB Journal, 2010, 24, 1431-1441.	0.5	43
51	The DEAD Box Protein Mrh4 Functions in the Assembly of the Mitochondrial Large Ribosomal Subunit. Cell Metabolism, 2013, 18, 712-725.	16.2	43
52	NAD+ salvage pathway proteins suppress proteotoxicity in yeast models of neurodegeneration by promoting the clearance of misfolded/oligomerized proteins. Human Molecular Genetics, 2013, 22, 1699-1708.	2.9	42
53	Synthesis of cytochrome c oxidase subunit 1 is translationally downregulated in the absence of functional F1F0-ATP synthase. Biochimica Et Biophysica Acta - Molecular Cell Research, 2009, 1793, 1776-1786.	4.1	40
54	COX16 Encodes a Novel Protein Required for the Assembly of Cytochrome Oxidase in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2003, 278, 3770-3775.	3.4	35

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55	A mitochondrial CO₂â€adenylyl cyclaseâ€cAMP signalosome controls yeast normoxic cytochromecoxidase activity. FASEB Journal, 2014, 28, 4369-4380.	0.5	35
56	Cytochrome Oxidase Assembly Does Not Require Catalytically Active Cytochrome c. Journal of Biological Chemistry, 2003, 278, 8881-8887.	3.4	34
57	The Conserved Mitochondrial Twin Cx9C Protein Cmc2 Is a Cmc1 Homologue Essential for Cytochrome c Oxidase Biogenesis. Journal of Biological Chemistry, 2010, 285, 15088-15099.	3.4	34
58	Elongator-dependent modification of cytoplasmic tRNA^{Lys}_{UUU}is required for mitochondrial function under stress conditions. Nucleic Acids Research, 2015, 43, 8368-8380.	14.5	30
59	Transcriptional Regulation of Yeast Oxidative Phosphorylation Hypoxic Genes by Oxidative Stress. Antioxidants and Redox Signaling, 2013, 19, 1916-1927.	5.4	29
60	Coordination of metal center biogenesis in human cytochrome c oxidase. Nature Communications, 2022, 13, .	12.8	28
61	I Function, Therefore I Am: Overcoming Skepticism about Mitochondrial Supercomplexes. Cell Metabolism, 2013, 18, 147-149.	16.2	26
62	HIGD-Driven Regulation of Cytochrome c Oxidase Biogenesis and Function. Cells, 2020, 9, 2620.	4.1	22
63	In Vivo Labeling and Analysis of Mitochondrial Translation Products in Budding and in Fission Yeasts. Methods in Molecular Biology, 2008, 457, 113-124.	0.9	20
64	Mitochondrial CytochromecOxidase Biogenesis Is Regulated by the Redox State of a Heme-Binding Translational Activator. Antioxidants and Redox Signaling, 2016, 24, 281-298.	5.4	19
65	Regulation of Mitochondrial Respiratory Chain Complex Levels, Organization, and Function by Arginyltransferase 1. Frontiers in Cell and Developmental Biology, 2020, 8, 603688.	3.7	19
66	Oma1 Links Mitochondrial Protein Quality Control and TOR Signaling To Modulate Physiological Plasticity and Cellular Stress Responses. Molecular and Cellular Biology, 2016, 36, 2300-2312.	2.3	18
67	The mitoribosome-specific protein mS38 is preferentially required for synthesis of cytochrome c oxidase subunits. Nucleic Acids Research, 2019, 47, 5746-5760.	14.5	18
68	Transmitochondrial technology in animal cells. Methods in Cell Biology, 2001, 65, 397-412.	1.1	17
69	Yeast Dihydroxybutanone Phosphate Synthase, an Enzyme of the Riboflavin Biosynthetic Pathway, Has a Second Unrelated Function in Expression of Mitochondrial Respiration. Journal of Biological Chemistry, 2003, 278, 14698-14703.	3.4	16
70	SIT4 regulation of Mig1pâ€mediated catabolite repression in Saccharomyces cerevisiae. FEBS Letters, 2007, 581, 5658-5663.	2.8	16
71	Attenuation of polyglutamine-induced toxicity by enhancement of mitochondrial OXPHOS in yeast and fly models of aging. Microbial Cell, 2016, 3, 338-351.	3.2	15
72	Evaluation of the Mitochondrial Respiratory Chain and Oxidative Phosphorylation System Using Yeast Models of OXPHOS Deficiencies. Current Protocols in Human Genetics, 2009, 63, Unit19.5.	3.5	14

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73	Bot1p Is Required for Mitochondrial Translation, Respiratory Function, and Normal Cell Morphology in the Fission Yeast Schizosaccharomyces pombe. Eukaryotic Cell, 2008, 7, 619-629.	3.4	12
74	Complementary roles of mitochondrial respiration and ROS signaling on cellular aging and longevity. Aging, 2012, 4, 578-579.	3.1	10
75	Mitochondrial ribosome bL34 mutants present diminished translation of cytochrome c oxidase subunits. Cell Biology International, 2018, 42, 630-642.	3.0	7
76	Exploring Protein-Protein Interactions Involving Newly Synthesized Mitochondrial DNA-Encoded Proteins. Methods in Molecular Biology, 2008, 457, 125-139.	0.9	7
77	Mitochondrial Cytochrome c Oxidase Assembly in Health and Human Diseases. , 2013, , 239-259.		3