Antonio Barrientos

List of Publications by Year
in descending order

88 papers	6,037 citations	66343 42 h-index	74163 75 g-index
92 all docs	92 docs citations	92 times ranked	6956 citing authors

#	Article	IF	Citations
1	Regulation of Yeast Chronological Life Span by TORC1 via Adaptive Mitochondrial ROS Signaling. Cell Metabolism, 2011, 13, 668-678.	16.2	273
2	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
3	Mitochondrial Complex I Plays an Essential Role in Human Respirasome Assembly. Cell Metabolism, 2012, 15, 324-335.	16.2	234
4	Mitochondrial cytochrome c oxidase biogenesis: Recent developments. Seminars in Cell and Developmental Biology, 2018, 76, 163-178.	5.0	225
5	In vivo and in organello assessment of OXPHOS activities. Methods, 2002, 26, 307-316.	3.8	222
6	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
7	Biogenesis and assembly of eukaryotic cytochrome c oxidase catalytic core. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 883-897.	1.0	202
8	Mitochondrial copper metabolism and delivery to cytochrome <i>c</i> oxidase. IUBMB Life, 2008, 60, 421-429.	3.4	199
9	Mss51p and Cox14p jointly regulate mitochondrial Cox1p expression in Saccharomyces cerevisiae. EMBO Journal, 2004, 23, 3472-3482.	7.8	179
10	Evaluation of the Mitochondrial Respiratory Chain and Oxidative Phosphorylation System Using Polarography and Spectrophotometric Enzyme Assays. Current Protocols in Human Genetics, 2009, 63, Unit19.3.	3.5	178
11	Cytochrome oxidase in health and disease. Gene, 2002, 286, 53-63.	2.2	175
12	Mutations in SLC25A46, encoding a UGO1-like protein, cause an optic atrophy spectrum disorder. Nature Genetics, 2015, 47, 926-932.	21.4	166
13	Guidelines and recommendations on yeast cell death nomenclature. Microbial Cell, 2018, 5, 4-31.	3.2	158
14	Mitochondrial ribosome assembly in health and disease. Cell Cycle, 2015, 14, 2226-2250.	2.6	157
15	Mitochondrial Respiratory Thresholds Regulate Yeast Chronological Life Span and its Extension by Caloric Restriction. Cell Metabolism, 2012, 16, 55-67.	16.2	156
16	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
17	Cytochrome <i>c</i> oxidase biogenesis: New levels of regulation. IUBMB Life, 2008, 60, 557-568.	3.4	143
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	Mitochondrial ribosomes in cancer. Seminars in Cancer Biology, 2017, 47, 67-81.	9.6	127
20	Dietary restriction, mitochondrial function and aging: from yeast to humans. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1434-1447.	1.0	111
21	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
22	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
23	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
24	Mechanism of membrane-tethered mitochondrial protein synthesis. Science, 2021, 371, 846-849.	12.6	76
25	Mss51 and Ssc1 Facilitate Translational Regulation of Cytochrome <i>c</i> Oxidase Biogenesis. Molecular and Cellular Biology, 2010, 30, 245-259.	2.3	72
26	Respiratory supercomplexes enhance electron transport by decreasing cytochrome <i>c</i> diffusion distance. EMBO Reports, 2020, 21, e51015.	4.5	71
27	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
28	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
29	A Heme-Sensing Mechanism in the Translational Regulation of Mitochondrial Cytochrome c Oxidase Biogenesis. Cell Metabolism, 2012, 16, 801-813.	16.2	66
30	MTG1 Codes for a Conserved Protein Required for Mitochondrial Translation. Molecular Biology of the Cell, 2003, 14, 2292-2302.	2.1	64
31	A <i> <scp>CMC</scp> 1 </i> â€knockout reveals translationâ€independent control of human mitochondrial complex <scp>IV</scp> biogenesis. EMBO Reports, 2017, 18, 477-494.	4.5	56
32	Redox and Reactive Oxygen Species Regulation of Mitochondrial Cytochrome<i>c</i>Oxidase Biogenesis. Antioxidants and Redox Signaling, 2013, 19, 1940-1952.	5.4	55
33	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
34	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
35	Multiple pathways coordinate assembly of human mitochondrial complex IV and stabilization of respiratory supercomplexes. EMBO Journal, 2020, 39, e103912.	7.8	54
36	Cmc1p Is a Conserved Mitochondrial Twin CX₉C Protein Involved in Cytochrome <i>c</i> Oxidase Biogenesis. Molecular and Cellular Biology, 2008, 28, 4354-4364.	2.3	53

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37	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
38	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
39	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
40	Evaluation of the Mitochondrial Respiratory Chain and Oxidative Phosphorylation System Using Blue Native Gel Electrophoresis. Current Protocols in Human Genetics, 2009, 63, Unit19.4.	3.5	49
41	Distinct Roles of Mitochondrial HIGD1A and HIGD2A in Respiratory Complex and Supercomplex Biogenesis. Cell Reports, 2020, 31, 107607.	6.4	49
42	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
43	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
44	Defects in mitochondrial fatty acid synthesis result in failure of multiple aspects of mitochondrial biogenesis in <i><scp>S</scp>accharomyces cerevisiae</i>. Molecular Microbiology, 2013, 90, 824-840.	2.5	45
45	Human GTPBP10 is required for mitoribosome maturation. Nucleic Acids Research, 2018, 46, 11423-11437.	14.5	45
46	Suppression of polyglutamineâ€induced cytotoxicity in<i>Saccharomyces cerevisiae</i>by enhancement of mitochondrial biogenesis. FASEB Journal, 2010, 24, 1431-1441.	0.5	43
47	The DEAD Box Protein Mrh4 Functions in the Assembly of the Mitochondrial Large Ribosomal Subunit. Cell Metabolism, 2013, 18, 712-725.	16.2	43
48	MTG1 couples mitoribosome large subunit assembly with intersubunit bridge formation. Nucleic Acids Research, 2018, 46, 8435-8453.	14.5	43
49	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
50	The Diseased Mitoribosome. FEBS Letters, 2021, 595, 1025-1061.	2.8	42
51	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
52	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
53	A mitochondrial CO₂â€adenylyl cyclaseâ€cAMP signalosome controls yeast normoxic cytochrome<i>c</i>oxidase activity. FASEB Journal, 2014, 28, 4369-4380.	0.5	35
54	Cytochrome Oxidase Assembly Does Not Require Catalytically Active Cytochrome c. Journal of Biological Chemistry, 2003, 278, 8881-8887.	3.4	34

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55	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
56	ATAD3A has a scaffolding role regulating mitochondria inner membrane structure and protein assembly. Cell Reports, 2021, 37, 110139.	6.4	34
57	Human GTPBP5 (MTG2) fuels mitoribosome large subunit maturation by facilitating 16S rRNA methylation. Nucleic Acids Research, 2020, 48, 7924-7943.	14.5	32
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	Role of GTPases in Driving Mitoribosome Assembly. Trends in Cell Biology, 2021, 31, 284-297.	7.9	24
63	Role of Twin Cys-Xaa9-Cys Motif Cysteines in Mitochondrial Import of the Cytochrome c Oxidase Biogenesis Factor Cmc1. Journal of Biological Chemistry, 2012, 287, 31258-31269.	3.4	23
64	HIGD-Driven Regulation of Cytochrome c Oxidase Biogenesis and Function. Cells, 2020, 9, 2620.	4.1	22
65	Mitochondrial Cytochrome<i>c</i>Oxidase Biogenesis Is Regulated by the Redox State of a Heme-Binding Translational Activator. Antioxidants and Redox Signaling, 2016, 24, 281-298.	5.4	19
66	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
67	Protocol for the Analysis of Yeast and Human Mitochondrial Respiratory Chain Complexes and Supercomplexes by Blue Native Electrophoresis. STAR Protocols, 2020, 1, 100089.	1.2	18
68	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
69	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
70	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
71	Exploiting Post-mitotic Yeast Cultures to Model Neurodegeneration. Frontiers in Molecular Neuroscience, 2018, 11, 400.	2.9	13
72	Mia40 Protein Serves as an Electron Sink in the Mia40-Erv1 Import Pathway. Journal of Biological Chemistry, 2015, 290, 20804-20814.	3.4	12

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73	The Existence of MTH1-independent 8-oxodGTPase Activity in Cancer Cells as a Compensatory Mechanism against On-target Effects of MTH1 Inhibitors. Molecular Cancer Therapeutics, 2020, 19, 432-446.	4.1	11
74	Mitochondriolus: assembling mitoribosomes. Oncotarget, 2015, 6, 16800-16801.	1.8	11
75	Complementary roles of mitochondrial respiration and ROS signaling on cellular aging and longevity. Aging, 2012, 4, 578-579.	3.1	10
76	Mitochondrial ribosome bL34 mutants present diminished translation of cytochrome <i>c</i> oxidase subunits. Cell Biology International, 2018, 42, 630-642.	3.0	7
77	Exploring Protein-Protein Interactions Involving Newly Synthesized Mitochondrial DNA-Encoded Proteins. Methods in Molecular Biology, 2008, 457, 125-139.	0.9	7
78	Sucrose Gradient Sedimentation Analysis of Mitochondrial Ribosomes. Methods in Molecular Biology, 2021, 2192, 211-226.	0.9	7
79	HIV-1 Infection Is Blocked at an Early Stage in Cells Devoid of Mitochondrial DNA. PLoS ONE, 2013, 8, e78035.	2.5	5
80	Functional Analyses of Mitoribosome 54S Subunit Devoid of Mitochondriaâ€Specific Protein Sequences. Yeast, 2021, , .	1.7	5
81	Mitochondrial Cytochrome c Oxidase Assembly in Health and Human Diseases. , 2013, , 239-259.		3
82	Salvage NAD+ biosynthetic pathway enzymes moonlight as molecular chaperones to protect against proteotoxicity. Human Molecular Genetics, 2021, 30, 672-686.	2.9	3
83	Cell size dependent migration of T-cells latently infected with HIV. Journal of Life Sciences (Westlake) Tj ETQq1 1 0.784314 rgBT /Overlo	1.8	2
84	Mitochondrial MTG1 is necessary for proper human cardiomyocyte activity and zebrafish cardiac development. Comment to â€œNovel role of mitochondrial GTPases 1 in pathological cardiac hypertrophyâ€• Journal of Molecular and Cellular Cardiology, 2019, 129, 1.	1.9	0
85	Human mitochondrial transcription and translation. , 2020, , 35-70.		0
86	Reevaluating the role of human mitochondrial uL18m in the cytosolic stress response. Nature Structural and Molecular Biology, 2021, 28, 474-475.	8.2	0
87	Posttranslational arginylation enzyme Ate1 is a mitochondrialâ€derived master regulator that coordinates glycolysis and respiration in the Warburg effect. FASEB Journal, 2018, 32, 791.19.	0.5	0
88	Ate1 Controls Cellular Warburg Effects by Modifying Hif1a with Arginylation. FASEB Journal, 2019, 33, lb312.	0.5	0