Narayan G Avadhani

List of Publications by Year
in descending order

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100 papers	9,519 citations	47006 47 h-index	37204 96 g-index
104 all docs	104 docs citations	104 times ranked	12659 citing authors

#	Article	IF	Citations
1	Dysregulation of RyR Calcium Channel Causes the Onset of Mitochondrial Retrograde Signaling. IScience, 2020, 23, 101370.	4.1	8
2	Alcohol-induced CYP2E1, mitochondrial dynamics and retrograde signaling in human hepatic 3D organoids. Free Radical Biology and Medicine, 2020, 159, 1-14.	2.9	18
3	Mitochondria-targeted paraquat and metformin mediate ROS production to induce multiple pathways of retrograde signaling: A dose-dependent phenomenon. Redox Biology, 2020, 36, 101606.	9.0	59
4	YY1 control of mitochondrialâ€related genes does not account for regulation of immunoglobulin class switch recombination in mice. European Journal of Immunology, 2020, 50, 822-838.	2.9	7
5	Role of Polycyclic Aromatic Hydrocarbons and Aryl Hydrocarbon Receptor Activation in Bone Loss. , 2020, , 311-318.		0
6	Mitochondrially targeted cytochrome P450 2D6 is involved in monomethylamine-induced neuronal damage in mouse models. Journal of Biological Chemistry, 2019, 294, 10336-10348.	3.4	10
7	Cytochrome c oxidase dysfunction enhances phagocytic function and osteoclast formation in macrophages. FASEB Journal, 2019, 33, 9167-9181.	0.5	16
8	Three-Dimensional Organoids Reveal Therapy Resistance of Esophageal and Oropharyngeal Squamous Cell Carcinoma Cells. Cellular and Molecular Gastroenterology and Hepatology, 2019, 7, 73-91.	4.5	102
9	Esophageal 3D organoids of MPV17-/- mouse model of mitochondrial DNA depletion show epithelial cell plasticity and telomere attrition. Oncotarget, 2019, 10, 6245-6259.	1.8	5
10	Aggressive triple negative breast cancers have unique molecular signature on the basis of mitochondrial genetic and functional defects. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2018, 1864, 1060-1071.	3.8	57
11	hnRNPA2 mediated acetylation reduces telomere length in response to mitochondrial dysfunction. PLoS ONE, 2018, 13, e0206897.	2.5	12
12	Mitochondrial genome and functional defects in osteosarcoma are associated with their aggressive phenotype. PLoS ONE, 2018, 13, e0209489.	2.5	13
13	Roles of Cytochrome P450 in Metabolism of Ethanol and Carcinogens. Advances in Experimental Medicine and Biology, 2018, 1032, 15-35.	1.6	49
14	Cigarette Smoke Toxins-Induced Mitochondrial Dysfunction and Pancreatitis Involves Aryl Hydrocarbon Receptor Mediated Cyp1 Gene Expression: Protective Effects of Resveratrol. Toxicological Sciences, 2018, 166, 428-440.	3.1	12
15	Mitochondrial dysfunction and mitochondrial dynamics-The cancer connection. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 602-614.	1.0	276
16	Mitochondrial LON protease-dependent degradation of cytochrome c oxidase subunits under hypoxia and myocardial ischemia. Biochimica Et Biophysica Acta - Bioenergetics, 2017, 1858, 519-528.	1.0	37
17	Blocking FSH induces thermogenic adipose tissue and reduces body fat. Nature, 2017, 546, 107-112.	27.8	250
18	Î²-Naphthoflavone-Induced Mitochondrial Respiratory Damage in Cyp1 Knockout Mouse and in Cell Culture Systems: Attenuation by Resveratrol Treatment. Oxidative Medicine and Cellular Longevity, 2017, 2017, 1-13.	4.0	14

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19	Targeting mitochondrial biogenesis to overcome drug resistance to MAPK inhibitors. Journal of Clinical Investigation, 2016, 126, 1834-1856.	8.2	219
20	HnRNPA2 is a novel histone acetyltransferase that mediates mitochondrial stress-induced nuclear gene expression. Cell Discovery, 2016, 2, 16045.	6.7	32
21	Mitochondrial respiratory defects promote the Warburg effect and cancer progression. Molecular and Cellular Oncology, 2016, 3, e1085120.	0.7	17
22	Enhanced osteoclastogenesis by mitochondrial retrograde signaling through transcriptional activation of the cathepsin K gene. Annals of the New York Academy of Sciences, 2016, 1364, 52-61.	3.8	9
23	ALDH2 modulates autophagy flux to regulate acetaldehyde-mediated toxicity thresholds. American Journal of Cancer Research, 2016, 6, 781-96.	1.4	12
24	Defects in cytochrome c oxidase expression induce a metabolic shift to glycolysis and carcinogenesis. Genomics Data, 2015, 6, 99-107.	1.3	15
25	Mitochondrial Targeting of Cytochrome P450 (CYP) 1B1 and Its Role in Polycyclic Aromatic Hydrocarbon-induced Mitochondrial Dysfunction. Journal of Biological Chemistry, 2014, 289, 9936-9951.	3.4	71
26	Targeting of Splice Variants of Human Cytochrome P450 2C8 (CYP2C8) to Mitochondria and Their Role in Arachidonic Acid Metabolism and Respiratory Dysfunction. Journal of Biological Chemistry, 2014, 289, 29614-29630.	3.4	12
27	Mitochondria-targeted heme oxygenase-1 induces oxidative stress and mitochondrial dysfunction in macrophages, kidney fibroblasts and in chronic alcohol hepatotoxicity. Redox Biology, 2014, 2, 273-283.	9.0	97
28	Mitochondrial retrograde signaling at the crossroads of tumor bioenergetics, genetics and epigenetics. Mitochondrion, 2013, 13, 577-591.	3.4	168
29	Metabolism of 1-Methyl-4-phenyl-1,2,3,6-tetrahydropyridine by Mitochondrion-targeted Cytochrome P450 2D6. Journal of Biological Chemistry, 2013, 288, 4436-4451.	3.4	63
30	Human Cytochrome P450 2E1 Mutations That Alter Mitochondrial Targeting Efficiency and Susceptibility to Ethanol-induced Toxicity in Cellular Models. Journal of Biological Chemistry, 2013, 288, 12627-12644.	3.4	42
31	Smoke carcinogens cause bone loss through the aryl hydrocarbon receptor and induction of Cyp1 enzymes. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11115-11120.	7.1	101
32	Oxidative Stress Induced Mitochondrial Protein Kinase A Mediates Cytochrome C Oxidase Dysfunction. PLoS ONE, 2013, 8, e77129.	2.5	63
33	Silencing of I k BÎ² mRNA causes disruption of mitochondrial retrograde signaling and suppression of tumor growth in vivo. Carcinogenesis, 2012, 33, 1762-1768.	2.8	21
34	Additive Effects of Mitochondrion-targeted Cytochrome CYP2E1 and Alcohol Toxicity on Cytochrome c Oxidase Function and Stability of Respirosome Complexes. Journal of Biological Chemistry, 2012, 287, 15284-15297.	3.4	27
35	Cytochrome c oxidase dysfunction in oxidative stress. Free Radical Biology and Medicine, 2012, 53, 1252-1263.	2.9	280
36	Targeting of the same proteins to multiple subcellular destinations: mechanisms and physiological implications. FEBS Journal, 2011, 278, 4217-4217.	4.7	9

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37	Bimodal targeting of cytochrome P450s to endoplasmic reticulum and mitochondria: the concept of chimeric signals. FEBS Journal, 2011, 278, 4218-4229.	4.7	80
38	The Effects of Smoke Carcinogens on Bone. Current Osteoporosis Reports, 2011, 9, 202-209.	3.6	40
39	Impaired Mitochondrial Respiratory Functions and Oxidative Stress in Streptozotocin-Induced Diabetic Rats. International Journal of Molecular Sciences, 2011, 12, 3133-3147.	4.1	115
40	Role of calcineurin, hnRNPA2 and Akt in mitochondrial respiratory stress-mediated transcription activation of nuclear gene targets. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1055-1065.	1.0	44
41	Role of mitochondrial reactive oxygen species in osteoclast differentiation. Annals of the New York Academy of Sciences, 2010, 1192, 245-252.	3.8	101
42	Mitochondria-targeted Cytochrome P450 2E1 Induces Oxidative Damage and Augments Alcohol-mediated Oxidative Stress. Journal of Biological Chemistry, 2010, 285, 24609-24619.	3.4	95
43	Activation of Akt Is Essential for the Propagation of Mitochondrial Respiratory Stress Signaling and Activation of the Transcriptional Coactivator Heterogeneous Ribonucleoprotein A2. Molecular Biology of the Cell, 2010, 21, 3578-3589.	2.1	63
44	Bimodal targeting of microsomal cytochrome P450s to mitochondria: implications in drug metabolism and toxicity. Expert Opinion on Drug Metabolism and Toxicology, 2010, 6, 1231-1251.	3.3	66
45	Identification of genetic variants of human cytochrome P450 2D6 with impaired mitochondrial targeting. Molecular Genetics and Metabolism, 2010, 99, 90-97.	1.1	39
46	Mitochondrial Targeting of Cytochrome P450 Proteins Containing NH2-terminal Chimeric Signals Involves an Unusual TOM20/TOM22 Bypass Mechanism. Journal of Biological Chemistry, 2009, 284, 17352-17363.	3.4	22
47	Knock-In Mouse Lines Expressing either Mitochondrial or Microsomal CYP1A1: Differing Responses to Dietary Benzo[a]pyrene as Proof of Principle. Molecular Pharmacology, 2009, 75, 555-567.	2.3	35
48	Heterogeneous Nuclear Ribonucleoprotein A2 Is a Common Transcriptional Coactivator in the Nuclear Transcription Response to Mitochondrial Respiratory Stress. Molecular Biology of the Cell, 2009, 20, 4107-4119.	2.1	48
49	Human liver mitochondrial cytochrome P450 2D6 â€“ individual variations and implications in drug metabolism. FEBS Journal, 2009, 276, 3440-3453.	4.7	28
50	Function of Mitochondrial Stat3 in Cellular Respiration. Science, 2009, 323, 793-797.	12.6	860
51	Doxorubicin Inactivates Myocardial Cytochrome c Oxidase in Rats: Cardioprotection by Mito-Q. Biophysical Journal, 2009, 96, 1388-1398.	0.5	160
52	Role of nuclear-encoded subunit Vb in the assembly and stability of cytochrome c oxidase complex: implications in mitochondrial dysfunction and ROS production. Biochemical Journal, 2009, 420, 439-449.	3.7	76
53	Mitochondrial Import and Accumulation of Î±-Synuclein Impair Complex I in Human Dopaminergic Neuronal Cultures and Parkinson Disease Brain. Journal of Biological Chemistry, 2008, 283, 9089-9100.	3.4	870
54	Bimodal Protein Targeting through Activation of Cryptic Mitochondrial Targeting Signals by an Inducible Cytosolic Endoprotease. Molecular Cell, 2008, 32, 32-42.	9.7	41

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55	A Distinctive Physiological Role for IÎºBÎ² in the Propagation of Mitochondrial Respiratory Stress Signaling. Journal of Biological Chemistry, 2008, 283, 12586-12594.	3.4	56
56	Dioxin-mediated tumor progression through activation of mitochondria-to-nucleus stress signaling. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 186-191.	7.1	86
57	Activation of a Novel Calcineurin-mediated Insulin-like Growth Factor-1 Receptor Pathway, Altered Metabolism, and Tumor Cell Invasion in Cells Subjected to Mitochondrial Respiratory Stress. Journal of Biological Chemistry, 2007, 282, 14536-14546.	3.4	51
58	Site specific phosphorylation of cytochromecoxidase subunits I, IVi1 and Vb in rabbit hearts subjected to ischemia/reperfusion. FEBS Letters, 2007, 581, 1302-1310.	2.8	91
59	Mitochondrial targeting of intact CYP2B1 and CYP2E1 and Nâ€terminal truncated CYP1A1 proteins in Saccharomyces cerevisiaeâ€ƒâ€”â€ƒrole of protein kinaseâ€ƒA in the mitochondrial targeting of CYP2E1. FEBS Journal, 2007, 274, 4615-4630.	4.7	30
60	Hypoxiaâ€Mediated Mitochondrial Stress in RAW264.7 Cells Induces Osteoclastâ€Like TRAPâ€Positive Cells. Annals of the New York Academy of Sciences, 2007, 1117, 51-61.	3.8	41
61	Protein Kinase A-mediated Phosphorylation Modulates Cytochrome c Oxidase Function and Augments Hypoxia and Myocardial Ischemia-related Injury. Journal of Biological Chemistry, 2006, 281, 2061-2070.	3.4	178
62	Role of Protein Kinase C-mediated Protein Phosphorylation in Mitochondrial Translocation of Mouse CYP1A1, Which Contains a Non-canonical Targeting Signal. Journal of Biological Chemistry, 2006, 281, 30834-30847.	3.4	29
63	Mitochondrial Glutathione S-Transferase Pool in Health and Disease. , 2006, , 277-291.		1
64	Bimodal targeting of human cytochrome P450 2D6 to mitochondria and microsomes: A pharmacogenomic approach for identifying genetic variants defective in mitochondrial targeting. FASEB Journal, 2006, 20, A264.	0.5	1
65	Hypoxia induced mitochondrial stress signaling promotes osteoclastogenesis in murine macrophages. FASEB Journal, 2006, 20, A120.	0.5	0
66	Mitochondria-to-nucleus stress signaling in mammalian cells: Nature of nuclear gene targets, transcription regulation, and induced resistance to apoptosis. Gene, 2005, 354, 132-139.	2.2	137
67	Elevated Mitochondrial Cytochrome P450 2E1 and Glutathione S-Transferase A4-4 in Streptozotocin-Induced Diabetic Rats: Tissue-Specific Variations and Roles in Oxidative Stress. Diabetes, 2004, 53, 185-194.	0.6	180
68	Regulation of Murine Cytochrome c Oxidase Vb Gene Expression during Myogenesis. Journal of Biological Chemistry, 2004, 279, 35242-35254.	3.4	19
69	Mitochondrial Signaling. Molecular Cell, 2004, 14, 1-15.	9.7	807
70	Competitive and Noncompetitive Inhibition of Myocardial Cytochrome C Oxidase in Sepsis. Shock, 2004, 21, 110-114.	2.1	91
71	Adaptive changes in the expression of nuclear and mitochondrial encoded subunits of cytochrome c oxidase and the catalytic activity during hypoxia. FEBS Journal, 2003, 270, 871-879.	0.2	73
72	Mitochondria to nucleus stress signaling. Journal of Cell Biology, 2003, 161, 507-519.	5.2	169

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73	Phosphorylation Enhances Mitochondrial Targeting of GSTA4-4 through Increased Affinity for Binding to Cytoplasmic Hsp70. Journal of Biological Chemistry, 2003, 278, 18960-18970.	3.4	101
74	Mitochondrial targeting and a novel transmembrane arrest of Alzheimer's amyloid precursor protein impairs mitochondrial function in neuronal cells. Journal of Cell Biology, 2003, 161, 41-54.	5.2	519
75	Bimodal Targeting of Microsomal CYP2E1 to Mitochondria through Activation of an N-terminal Chimeric Signal by cAMP-mediated Phosphorylation. Journal of Biological Chemistry, 2002, 277, 40583-40593.	3.4	135
76	Multiple isoforms of mitochondrial glutathione S-transferases and their differential induction under oxidative stress. Biochemical Journal, 2002, 366, 45-55.	3.7	152
77	Mitochondrial stress-induced calcium signaling, phenotypic changes and invasive behavior in human lung carcinoma A549 cells. Oncogene, 2002, 21, 7839-7849.	5.9	229
78	Mitochondrial Targeted Cytochrome P450 2E1 (P450 MT5) Contains an Intact N Terminus and Requires Mitochondrial Specific Electron Transfer Proteins for Activity. Journal of Biological Chemistry, 2001, 276, 24680-24689.	3.4	93
79	Novel biochemical and functional insights into nuclear Ca²⁺transport through IP₃Rs and RyRs in osteoblasts. American Journal of Physiology - Renal Physiology, 2000, 278, F784-F791.	2.7	28
80	Accumulation of Mitochondrial P450MT2, NH2-terminal Truncated Cytochrome P4501A1 in Rat Brain during Chronic Treatment with Î²-Naphthoflavone. Journal of Biological Chemistry, 2000, 275, 34415-34423.	3.4	34
81	Dual Targeting Property of the N-terminal Signal Sequence of P4501A1. Journal of Biological Chemistry, 1999, 274, 24014-24022.	3.4	46
82	Physiological Role of the N-terminal Processed P4501A1 Targeted to Mitochondria in Erythromycin Metabolism and Reversal of Erythromycin-mediated Inhibition of Mitochondrial Protein Synthesis. Journal of Biological Chemistry, 1999, 274, 6617-6625.	3.4	44
83	Tissue variant effects of heme inhibitors on the mouse cytochrome c oxidase gene expression and catalytic activity of the enzyme complex. FEBS Journal, 1999, 266, 191-200.	0.2	35
84	A new function for CD38/ADP-ribosyl cyclase in nuclear Ca2+ homeostasis. Nature Cell Biology, 1999, 1, 409-414.	10.3	159
85	Constitutive and Inducible Cytochromes P450 in Rat Lung Mitochondria: Xenobiotic Induction, Relative Abundance, and Catalytic Properties. Toxicology and Applied Pharmacology, 1999, 156, 231-240.	2.8	38
86	Preferential effects of nicotine and 4-(N-methyl- N-nitrosamino)-1-(3-pyridyl)-1-butanone on mitochondrial glutathione S-transferase a4-4 induction and increased oxidative stress in the rat brain. Biochemical Pharmacology, 1998, 56, 831-839.	4.4	121
87	Variations in the subunit content and catalytic activity of the cytochrome c oxidase complex from different tissues and different cardiac compartments. Biochimica Et Biophysica Acta - Biomembranes, 1998, 1371, 71-82.	2.6	57
88	Interaction of Adrenodoxin with P4501A1 and Its Truncated Form P450MT2 through Different Domains:â€‰ Differential Modulation of Enzyme Activities. Biochemistry, 1998, 37, 1150-1160.	2.5	32
89	Structural Organization and Transcription Regulation of Nuclear Genes Encoding the Mammalian Cytochrome c Oxidase Complex. Progress in Molecular Biology and Translational Science, 1998, 61, 309-344.	1.9	120
90	Targeting of NH2-terminalâ€“processed Microsomal Protein to Mitochondria: A Novel Pathway for the Biogenesis of Hepatic Mitochondrial P450MT2. Journal of Cell Biology, 1997, 139, 589-599.	5.2	136

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91	Localization of Multiple Forms of Inducible Cytochromes P450 in Rat Liver Mitochondria: Immunological Characteristics and Patterns of Xenobiotic Substrate Metabolism. Archives of Biochemistry and Biophysics, 1997, 339, 136-150.	3.0	99
92	The Role of an E Box Binding Basic Helix Loop Helix Protein in the Cardiac Muscle-specific Expression of the Rat Cytochrome Oxidase Subunit VIII Gene. Journal of Biological Chemistry, 1996, 271, 30281-30289.	3.4	26
93	Localization of a transcription promoter within the second exon of the cytochrome P-450c27/25 gene for the expression of the major species of two-kilobase mRNA. Biochemistry, 1995, 34, 13729-13742.	2.5	23
94	Cloning and characterization of the mouse cytochrome c oxidase subunit IV gene. Archives of Biochemistry and Biophysics, 1991, 288, 97-106.	3.0	36
95	[57] Constitutive and inducible forms of cytochrome P450 from hepatic mitochondria. Methods in Enzymology, 1991, 206, 587-594.	1.0	17
96	A cDNA Encoding a Rat Mitochondrial Cytochrome P450 Catalyzing Both the 26-Hydroxylation of Cholesterol and 25-Hydroxylation of Vitamin D₃: Gonadotropic Regulation of the Cognate mRNA in Ovaries. DNA and Cell Biology, 1990, 9, 657-665.	1.9	131
97	Nucleotide sequence of cDNA for nuclear encoded subunit Vb of mouse cytochrome-c oxidase. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1990, 1087, 98-100.	2.4	12
98	Transport of proteins into hepatic and nonhepatic mitochondria: specificity of uptake and processing of precursor forms of carbamoyl-phosphate synthetase. Biochemistry, 1985, 24, 8107-8113.	2.5	18
99	The transport and processing of carbamyl phosphate synthetase-I in mouse hepatic mitochondria. Biochemical and Biophysical Research Communications, 1984, 118, 514-522.	2.1	5
100	Qualitative and comparative nature of mitochondrial translation products in mammalian cells. Biochemistry, 1982, 21, 2452-2460.	2.5	44