

Mark J Crabtree

List of Publications by Year in descending order

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58
papers

3,493
citations

147801
31
h-index

161849
54
g-index

58
all docs

58
docs citations

58
times ranked

4964
citing authors

#	ARTICLE	IF	CITATIONS
1	Prevention and Reversal of Premature Endothelial Cell Senescence and Vasculopathy in Obesity-Induced Diabetes by Ebselen. <i>Circulation Research</i> , 2004, 94, 377-384.	4.5	195
2	Critical Role for Tetrahydrobiopterin Recycling by Dihydrofolate Reductase in Regulation of Endothelial Nitric-oxide Synthase Coupling. <i>Journal of Biological Chemistry</i> , 2009, 284, 28128-28136.	3.4	184
3	Tetrahydrobiopterin in Cardiovascular Health and Disease. <i>Antioxidants and Redox Signaling</i> , 2014, 20, 3040-3077.	5.4	181
4	Synthesis and recycling of tetrahydrobiopterin in endothelial function and vascular disease. <i>Nitric Oxide - Biology and Chemistry</i> , 2011, 25, 81-88.	2.7	180
5	Ratio of 5,6,7,8-tetrahydrobiopterin to 7,8-dihydrobiopterin in endothelial cells determines glucose-elicited changes in NO vs. superoxide production by eNOS. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2008, 294, H1530-H1540.	3.2	176
6	Quantitative Regulation of Intracellular Endothelial Nitric-oxide Synthase (eNOS) Coupling by Both Tetrahydrobiopterin-eNOS Stoichiometry and Biopterin Redox Status. <i>Journal of Biological Chemistry</i> , 2009, 284, 1136-1144.	3.4	171
7	Nephropathy in Zucker Diabetic Fat Rat Is Associated with Oxidative and Nitrosative Stress. <i>Journal of the American Society of Nephrology: JASN</i> , 2004, 15, 2391-2403.	6.1	166
8	Nitric Oxide Modulates Metabolic Remodeling in Inflammatory Macrophages through TCA Cycle Regulation and Itaconate Accumulation. <i>Cell Reports</i> , 2019, 28, 218-230.e7.	6.4	149
9	Systemic and Vascular Oxidation Limits the Efficacy of Oral Tetrahydrobiopterin Treatment in Patients With Coronary Artery Disease. <i>Circulation</i> , 2012, 125, 1356-1366.	1.6	144
10	Involvement of mitochondria in acetaminophen-induced apoptosis and hepatic injury. <i>Toxicology and Applied Pharmacology</i> , 2003, 191, 118-129.	2.8	141
11	Altered Plasma Versus Vascular Biopterins in Human Atherosclerosis Reveal Relationships Between Endothelial Nitric Oxide Synthase Coupling, Endothelial Function, and Inflammation. <i>Circulation</i> , 2007, 116, 2851-2859.	1.6	138
12	Nitric Oxide Synthases in Heart Failure. <i>Antioxidants and Redox Signaling</i> , 2013, 18, 1078-1099.	5.4	137
13	Regulation of iNOS function and cellular redox state by macrophage Gch1 reveals specific requirements for tetrahydrobiopterin in NRF2 activation. <i>Free Radical Biology and Medicine</i> , 2015, 79, 206-216.	2.9	115
14	Hyperglycemia Induces Trained Immunity in Macrophages and Their Precursors and Promotes Atherosclerosis. <i>Circulation</i> , 2021, 144, 961-982.	1.6	109
15	Recoupling the Cardiac Nitric Oxide Synthases: Tetrahydrobiopterin Synthesis and Recycling. <i>Current Heart Failure Reports</i> , 2012, 9, 200-210.	3.3	107
16	Endothelial Cell-Specific Reactive Oxygen Species Production Increases Susceptibility to Aortic Dissection. <i>Circulation</i> , 2014, 129, 2661-2672.	1.6	96
17	Dihydrofolate reductase protects endothelial nitric oxide synthase from uncoupling in tetrahydrobiopterin deficiency. <i>Free Radical Biology and Medicine</i> , 2011, 50, 1639-1646.	2.9	93
18	Endothelial-specific Nox2 overexpression increases vascular superoxide and macrophage recruitment in ApoE ^{-/-} mice. <i>Cardiovascular Research</i> , 2012, 94, 20-29.	3.8	93

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19	Integrated Redox Sensor and Effector Functions for Tetrahydrobiopterin- and Glutathionylation-dependent Endothelial Nitric-oxide Synthase Uncoupling. <i>Journal of Biological Chemistry</i> , 2013, 288, 561-569.	3.4	75
20	Endothelial cell repopulation after stenting determines in-stent neointima formation: effects of bare-metal vs. drug-eluting stents and genetic endothelial cell modification. <i>European Heart Journal</i> , 2013, 34, 3378-3388.	2.2	58
21	GTP Cyclohydrolase I Expression, Protein, and Activity Determine Intracellular Tetrahydrobiopterin Levels, Independent of GTP Cyclohydrolase Feedback Regulatory Protein Expression. <i>Journal of Biological Chemistry</i> , 2009, 284, 13660-13668.	3.4	54
22	Cell-Autonomous Role of Endothelial GTP Cyclohydrolase 1 and Tetrahydrobiopterin in Blood Pressure Regulation. <i>Hypertension</i> , 2014, 64, 530-540.	2.7	50
23	A novel role for endothelial tetrahydrobiopterin in mitochondrial redox balance. <i>Free Radical Biology and Medicine</i> , 2017, 104, 214-225.	2.9	49
24	Gene Therapy Targeting Inflammation in Atherosclerosis. <i>Current Pharmaceutical Design</i> , 2011, 17, 4210-4223.	1.9	42
25	Regulation of Endothelial Nitric-oxide Synthase (NOS) S-Glutathionylation by Neuronal NOS. <i>Journal of Biological Chemistry</i> , 2012, 287, 43665-43673.	3.4	42
26	Cardiomyocyte GTP Cyclohydrolase 1 and Tetrahydrobiopterin Increase NOS1 Activity and Accelerate Myocardial Relaxation. <i>Circulation Research</i> , 2012, 111, 718-727.	4.5	38
27	Roles for endothelial cell and macrophage Gch1 and tetrahydrobiopterin in atherosclerosis progression. <i>Cardiovascular Research</i> , 2018, 114, 1385-1399.	3.8	38
28	Tetrahydrobiopterin supplementation reduces atherosclerosis and vascular inflammation in apolipoprotein E-knockout mice. <i>Clinical Science</i> , 2010, 119, 131-142.	4.3	37
29	A key role for tetrahydrobiopterin-dependent endothelial NOS regulation in resistance arteries: studies in endothelial cell tetrahydrobiopterin-deficient mice. <i>British Journal of Pharmacology</i> , 2017, 174, 657-671.	5.4	37
30	Isolation and culture of murine bone marrow-derived macrophages for nitric oxide and redox biology. <i>Nitric Oxide - Biology and Chemistry</i> , 2020, 100-101, 17-29.	2.7	37
31	Hepatic miR-144 Drives Fumarase Activity Preventing NRF2 Activation During Obesity. <i>Gastroenterology</i> , 2021, 161, 1982-1997.e11.	1.3	34
32	Profound biopterin oxidation and protein tyrosine nitration in tissues of ApoE-null mice on an atherogenic diet: contribution of inducible nitric oxide synthase. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 293, H2878-H2887.	3.2	32
33	A requirement for Gch1 and tetrahydrobiopterin in embryonic development. <i>Developmental Biology</i> , 2015, 399, 129-138.	2.0	30
34	Î±-Synuclein and mitochondrial bioenergetics regulate tetrahydrobiopterin levels in a human dopaminergic model of Parkinson disease. <i>Free Radical Biology and Medicine</i> , 2014, 67, 58-68.	2.9	26
35	Protection against ventricular fibrillation via cholinergic receptor stimulation and the generation of nitric oxide. <i>Journal of Physiology</i> , 2016, 594, 3981-3992.	2.9	25
36	Regulation of mycobacterial infection by macrophage Gch1 and tetrahydrobiopterin. <i>Nature Communications</i> , 2018, 9, 5409.	12.8	24

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37	Oxidation resistance 1 regulates post-translational modifications of peroxiredoxin 2 in the cerebellum. <i>Free Radical Biology and Medicine</i> , 2019, 130, 151-162.	2.9	23
38	CAPON Modulates Neuronal Calcium Handling and Cardiac Sympathetic Neurotransmission During Dysautonomia in Hypertension. <i>Hypertension</i> , 2015, 65, 1288-1297.	2.7	21
39	A Pivotal Role for Tryptophan 447 in Enzymatic Coupling of Human Endothelial Nitric Oxide Synthase (eNOS). <i>Journal of Biological Chemistry</i> , 2013, 288, 29836-29845.	3.4	20
40	Nitric oxide modulates cardiomyocyte pH control through a biphasic effect on sodium/hydrogen exchanger-1. <i>Cardiovascular Research</i> , 2020, 116, 1958-1971.	3.8	16
41	Nitrosative Stress and Myocardial Sarcoplasmic Endoreticular Calcium Adenosine Triphosphatase Subtype 2a Activity after Lung Resection in Swine. <i>Anesthesiology</i> , 2007, 107, 954-962.	2.5	13
42	Overexpression of GTP Cyclohydrolase 1 Feedback Regulatory Protein Is Protective in a Murine Model of Septic Shock. <i>Shock</i> , 2014, 42, 432-439.	2.1	11
43	Dihydrofolate reductase and biopterin recycling in cardiovascular disease. <i>Journal of Molecular and Cellular Cardiology</i> , 2009, 47, 749-751.	1.9	10
44	Mildly compromised tetrahydrobiopterin cofactor biosynthesis due to <i>Pts</i> variants leads to unusual body fat distribution and abdominal obesity in mice. <i>Journal of Inherited Metabolic Disease</i> , 2016, 39, 309-319.	3.6	10
45	Endothelial GTPCH (GTP Cyclohydrolase 1) and Tetrahydrobiopterin Regulate Gestational Blood Pressure, Uteroplacental Remodeling, and Fetal Growth. <i>Hypertension</i> , 2021, 78, 1871-1884.	2.7	10
46	Atrial nitroso-redox balance and refractoriness following on-pump cardiac surgery: a randomized trial of atorvastatin. <i>Cardiovascular Research</i> , 2022, 118, 184-195.	3.8	9
47	Molecular mechanisms of myocardial nitroso-redox imbalance during on-pump cardiac surgery. <i>Lancet, The</i> , 2015, 385, S49.	13.7	7
48	Itaconate as an inflammatory mediator and therapeutic target in cardiovascular medicine. <i>Biochemical Society Transactions</i> , 2021, 49, 2189-2198.	3.4	7
49	Detection of Cysteine S-Nitrosylation and Tyrosine 3-Nitration in Kidney Proteins. , 2003, 86, 373-384.		6
50	Targeting Vascular Redox Biology Through Antioxidant Gene Delivery: A Historical View and Current Perspectives. <i>Recent Patents on Cardiovascular Drug Discovery</i> , 2011, 6, 89-102.	1.5	6
51	Tetrahydrobiopterin modulates ubiquitin conjugation to UBC13/UBE2N and proteasome activity by S-nitrosation. <i>Scientific Reports</i> , 2018, 8, 14310.	3.3	5
52	Systemic oxidative stress associated with lung resection during single lung ventilation. <i>European Journal of Cardio-thoracic Surgery</i> , 2006, 30, 568-569.	1.4	4
53	Gene Delivery Strategies Targeting Stable Atheromatous Plaque. <i>Current Pharmaceutical Design</i> , 2013, 19, 1626-1637.	1.9	4
54	Parkinson's disease in GTP cyclohydrolase 1 mutation carriers. <i>Brain</i> , 2015, 138, e348-e348.	7.6	4

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55	Effects Of Endothelin-1 On Intracellular Tetrahydrobiopterin Levels In Vascular Tissue. Scandinavian Cardiovascular Journal, 2018, 52, 163-169.	1.2	4
56	Contribution of inducible nitric oxide synthase to protein tyrosine nitration and biopterin oxidation in ApoE ϵ null mice. FASEB Journal, 2007, 21, A1146.	0.5	0
57	Abstract 167: A Cell-Autonomous Role for Endothelial GTP Cyclohydrolase 1 and Tetrahydrobiopterin in Blood Pressure Regulation. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, .	2.4	0
58	Abstract 13082: On-Pump Cardiac Surgery in Humans Induces Myocardial Nitric Oxide Synthase Dysfunction via S-Glutathionylation of eNOS. Circulation, 2014, 130, .	1.6	0