Roberto A Motterlini

List of Publications by Citations

199 papers	16,964 citations	66 h-index	126 g-index
216 ext. papers	18,081 ext. citations	5.9 avg, IF	6.62 L-index

#	Paper	IF	Citations
199	The therapeutic potential of carbon monoxide. *Nature Reviews Drug Discovery*, **2010**, 9, 728-43	64.1	1061
198	Curcumin activates the haem oxygenase-1 gene via regulation of Nrf2 and the antioxidant-responsive element. *Biochemical Journal*, **2003**, 371, 887-95	3.8	838
197	Carbon monoxide-releasing molecules: characterization of biochemical and vascular activities. *Circulation Research*, **2002**, 90, E17-24	15.7	773
196	Use of carbon monoxide as a therapeutic agent: promises and challenges. *Intensive Care Medicine*, **2008**, 34, 649-58	14.5	716
195	Curcumin, an antioxidant and anti-inflammatory agent, induces heme oxygenase-1 and protects endothelial cells against oxidative stress. *Free Radical Biology and Medicine*, **2000**, 28, 1303-12	7.8	639
194	Cardioprotective actions by a water-soluble carbon monoxide-releasing molecule. *Circulation Research*, **2003**, 93, e2-8	15.7	535
193	Carbon monoxide-releasing molecules (CO-RMs) attenuate the inflammatory response elicited by lipopolysaccharide in RAW264.7 murine macrophages. *British Journal of Pharmacology*, **2005**, 145, 800-10	8.6	298
192	CORM-A1: a new pharmacologically active carbon monoxide-releasing molecule. *FASEB Journal*, **2005**, 19, 284-6	0.9	296
191	Heme oxygenase-1-derived bilirubin ameliorates postischemic myocardial dysfunction. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 278, H643-51	5.2	289
190	Caffeic acid phenethyl ester and curcumin: a novel class of heme oxygenase-1 inducers. *Molecular Pharmacology*, **2002**, 61, 554-61	4.3	269
189	Dynamics of haem oxygenase-1 expression and bilirubin production in cellular protection against oxidative stress. *Biochemical Journal*, **2000**, 348, 615-619	3.8	263
188	Heme oxygenase-1-derived carbon monoxide contributes to the suppression of acute hypertensive responses in vivo. *Circulation Research*, **1998**, 83, 568-77	15.7	252
187	Thiol compounds interact with nitric oxide in regulating heme oxygenase-1 induction in endothelial cells. Involvement of superoxide and peroxynitrite anions. *Journal of Biological Chemistry*, **1997**, 272, 18411-7	5.4	250
186	Vasoactive properties of CORM-3, a novel water-soluble carbon monoxide-releasing molecule. *British Journal of Pharmacology*, **2004**, 142, 453-60	8.6	239
185	Therapeutic applications of carbon monoxide-releasing molecules. *Expert Opinion on Investigational Drugs*, **2005**, 14, 1305-18	5.9	237
184	The heme oxygenase pathway and its interaction with nitric oxide in the control of cellular homeostasis. *Free Radical Research*, **1999**, 31, 459-75	4	230
183	Metal carbonyls: a new class of pharmaceuticals?. *Angewandte Chemie - International Edition*, **2003**, 42, 3722-9	16.4	223

182	Bioactivity and pharmacological actions of carbon monoxide-releasing molecules. *Current Pharmaceutical Design*, **2003**, 9, 2525-39	3.3	217
181	Endothelial heme oxygenase-1 induction by hypoxia. Modulation by inducible nitric-oxide synthase and S-nitrosothiols. *Journal of Biological Chemistry*, **2000**, 275, 13613-20	5.4	214
180	Mitochondrial respiratory chain and NAD(P)H oxidase are targets for the antiproliferative effect of carbon monoxide in human airway smooth muscle. *Journal of Biological Chemistry*, **2005**, 280, 25350-60	5.4	198
179	Bilirubin decreases nos2 expression via inhibition of NAD(P)H oxidase: implications for protection against endotoxic shock in rats. *FASEB Journal*, **2005**, 19, 1890-2	0.9	193
178	Carbon monoxide is a major contributor to the regulation of vascular tone in aortas expressing high levels of haeme oxygenase-1. *British Journal of Pharmacology*, **1998**, 125, 1437-44	8.6	188
177	Administration of a CO-releasing molecule at the time of reperfusion reduces infarct size in vivo. *American Journal of Physiology - Heart and Circulatory Physiology*, **2004**, 286, H1649-53	5.2	175
176	Heme oxygenase and angiogenic activity of endothelial cells: stimulation by carbon monoxide and inhibition by tin protoporphyrin-IX. *Antioxidants and Redox Signaling*, **2003**, 5, 155-62	8.4	170
175	Chemistry and biological activities of CO-releasing molecules (CORMs) and transition metal complexes. *Dalton Transactions*, **2007**, 1651-60	4.3	167
174	Peroxynitrite induces haem oxygenase-1 in vascular endothelial cells: a link to apoptosis. *Biochemical Journal*, **1999**, 339, 729-736	3.8	164
173	Carbon monoxide rescues mice from lethal sepsis by supporting mitochondrial energetic metabolism and activating mitochondrial biogenesis. *Journal of Pharmacology and Experimental Therapeutics*, **2009**, 329, 641-8	4.7	155
172	Heme oxygenase activity modulates vascular endothelial growth factor synthesis in vascular smooth muscle cells. *Antioxidants and Redox Signaling*, **2002**, 4, 229-40	8.4	151
171	CO-metal interaction: Vital signaling from a lethal gas. *Trends in Biochemical Sciences*, **2006**, 31, 614-21	10.3	150
170	Interaction of bilirubin and biliverdin with reactive nitrogen species. *FEBS Letters*, **2003**, 543, 113-9	3.8	143
169	Heme oxygenase-1 as a target for drug discovery. *Antioxidants and Redox Signaling*, **2014**, 20, 1810-26	8.4	141
168	Carbon monoxide-releasing molecules (CO-RMs): vasodilatory, anti-ischaemic and anti-inflammatory activities. *Biochemical Society Transactions*, **2007**, 35, 1142-6	5.1	141
167	Modification of the deoxy-myoglobin/carbonmonoxy-myoglobin UV-vis assay for reliable determination of CO-release rates from organometallic carbonyl complexes. *Dalton Transactions*, **2011**, 40, 5755-61	4.3	139
166	Metal carbonyls as pharmaceuticals? [Ru(CO)3Cl(glycinate)], a CO-releasing molecule with an extensive aqueous solution chemistry. *Dalton Transactions*, **2007**, 1500-8	4.3	139
165	CO and NO in medicine. *Chemical Communications*, **2007**, 4197-208	5.8	138

164	Biological signaling by carbon monoxide and carbon monoxide-releasing molecules. *American Journal of Physiology - Cell Physiology*, **2017**, 312, C302-C313	5.4	136
163	Regulation of heme oxygenase-1 by redox signals involving nitric oxide. *Antioxidants and Redox Signaling*, **2002**, 4, 615-24	8.4	123
162	Mesenchymal stem cells sense mitochondria released from damaged cells as danger signals to activate their rescue properties. *Cell Death and Differentiation*, **2017**, 24, 1224-1238	12.7	122
161	Small molecule activators of the Nrf2-HO-1 antioxidant axis modulate heme metabolism and inflammation in BV2 microglia cells. *Pharmacological Research*, **2013**, 76, 132-48	10.2	122
160	Heme Oxygenase-1 and Carbon Monoxide in the Heart: The Balancing Act Between Danger Signaling and Pro-Survival. *Circulation Research*, **2016**, 118, 1940-1959	15.7	121
159	Carbon monoxide-releasing antibacterial molecules target respiration and global transcriptional regulators. *Journal of Biological Chemistry*, **2009**, 284, 4516-24	5.4	118
158	A carbon monoxide-releasing molecule (CORM-3) exerts bactericidal activity against Pseudomonas aeruginosa and improves survival in an animal model of bacteraemia. *FASEB Journal*, **2009**, 23, 1023-31	0.9	118
157	Administration of a CO-releasing molecule induces late preconditioning against myocardial infarction. *Journal of Molecular and Cellular Cardiology*, **2005**, 38, 127-34	5.8	114
156	[Mn(CO)4{S2CNMe(CH2CO2H)}], a new water-soluble CO-releasing molecule. *Dalton Transactions*, **2011**, 40, 4230-5	4.3	113
155	A carbon monoxide-releasing molecule (CORM-3) uncouples mitochondrial respiration and modulates the production of reactive oxygen species. *Free Radical Biology and Medicine*, **2011**, 50, 1556-64	7.8	108
154	Protection against cisplatin-induced nephrotoxicity by a carbon monoxide-releasing molecule. *American Journal of Physiology - Renal Physiology*, **2006**, 290, F789-94	4.3	108
153	Treatment with CO-RMs during cold storage improves renal function at reperfusion. *Kidney International*, **2006**, 69, 239-47	9.9	105
152	Carbon monoxide inhibits TLR-induced dendritic cell immunogenicity. *Journal of Immunology*, **2009**, 182, 1877-84	5.3	102
151	Dynamics of haem oxygenase-1 expression and bilirubin production in cellular protection against oxidative stress. *Biochemical Journal*, **2000**, 348, 615	3.8	98
150	Water-soluble CO-releasing molecules reduce the development of postoperative ileus via modulation of MAPK/HO-1 signalling and reduction of oxidative stress. *Gut*, **2009**, 58, 347-56	19.2	95
149	Induction of heme oxygenase 1 by nitrosative stress. A role for nitroxyl anion. *Journal of Biological Chemistry*, **2002**, 277, 40666-74	5.4	95
148	Carbon monoxide released by CORM-3 inhibits human platelets by a mechanism independent of soluble guanylate cyclase. *Cardiovascular Research*, **2006**, 71, 393-401	9.9	87
147	Differential activation of heme oxygenase-1 by chalcones and rosolic acid in endothelial cells. *Journal of Pharmacology and Experimental Therapeutics*, **2005**, 312, 686-93	4.7	87

146	Differential antibacterial activity against Pseudomonas aeruginosa by carbon monoxide-releasing molecules. *Antioxidants and Redox Signaling*, **2012**, 16, 153-63	8.4	84
145	CORM-3, a carbon monoxide-releasing molecule, alters the inflammatory response and reduces brain damage in a rat model of hemorrhagic stroke. *Critical Care Medicine*, **2012**, 40, 544-52	1.4	82
144	cGMP produced by NO-sensitive guanylyl cyclase essentially contributes to inflammatory and neuropathic pain by using targets different from cGMP-dependent protein kinase I. *Journal of Neuroscience*, **2008**, 28, 8568-76	6.6	82
143	Carbon monoxide-releasing molecules modulate leukocyte-endothelial interactions under flow. *Journal of Pharmacology and Experimental Therapeutics*, **2007**, 321, 656-62	4.7	82
142	Bilirubin and S-nitrosothiols interaction: evidence for a possible role of bilirubin as a scavenger of nitric oxide. *Biochemical Pharmacology*, **2003**, 66, 2355-63	6	81
141	Human and murine macrophages exhibit differential metabolic responses to lipopolysaccharide - A divergent role for glycolysis. *Redox Biology*, **2019**, 22, 101147	11.3	79
140	Role of heme oxygenase-1 in hypoxia-reoxygenation: requirement of substrate heme to promote cardioprotection. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 281, H1976-84	5.2	78
139	Early recognition of a discordant xenogeneic organ by human circulating lymphocytes. *Journal of Immunology*, **1992**, 149, 1416-23	5.3	78
138	Peroxynitrite induces haem oxygenase-1 in vascular endothelial cells: a link to apoptosis. *Biochemical Journal*, **1999**, 339, 729	3.8	77
137	Mu2-alkyne dicobalt(0)hexacarbonyl complexes as carbon monoxide-releasing molecules (CO-RMs): probing the release mechanism. *Dalton Transactions*, **2009**, 3653-6	4.3	74
136	Bioactive properties of iron-containing carbon monoxide-releasing molecules. *Journal of Pharmacology and Experimental Therapeutics*, **2006**, 318, 403-10	4.7	73
135	Modulation of thrombin-induced neuroinflammation in BV-2 microglia by carbon monoxide-releasing molecule 3. *Journal of Pharmacology and Experimental Therapeutics*, **2006**, 318, 1315-22	4.7	73
134	Emerging concepts on the anti-inflammatory actions of carbon monoxide-releasing molecules (CO-RMs). *Medical Gas Research*, **2012**, 2, 28	2.2	67
133	Treatment with a CO-releasing molecule (CORM-3) reduces joint inflammation and erosion in murine collagen-induced arthritis. *Annals of the Rheumatic Diseases*, **2008**, 67, 1211-7	2.4	66
132	Syntheses, structural characterization and CO releasing properties of boranocarbonate [H3BCO2H]- derivatives. *Organic and Biomolecular Chemistry*, **2010**, 8, 4849-54	3.9	65
131	Carbon monoxide induces a late preconditioning-mimetic cardioprotective and antiapoptotic milieu in the myocardium. *Journal of Molecular and Cellular Cardiology*, **2012**, 52, 228-36	5.8	64
130	Heme oxygenase-1 mediates the anti-inflammatory actions of 2Rhydroxychalcone in RAW 264.7 murine macrophages. *American Journal of Physiology - Cell Physiology*, **2006**, 290, C1092-9	5.4	64
129	Eta4-pyrone iron(0)carbonyl complexes as effective CO-releasing molecules (CO-RMs). *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 995-8	2.9	64

128	Carbon monoxide reduces neuropathic pain and spinal microglial activation by inhibiting nitric oxide synthesis in mice. *PLoS ONE*, **2012**, 7, e43693	3.7	62
127	Eta(1)-2-pyrone metal carbonyl complexes as CO-releasing molecules (CO-RMs): a delicate balance between stability and CO liberation. *Dalton Transactions*, **2007**, 3603-5	4.3	62
126	Involvement of the heme oxygenase-carbon monoxide pathway in keratinocyte proliferation. *Biochemical and Biophysical Research Communications*, **1997**, 241, 215-20	3.4	60
125	Vascular and angiogenic activities of CORM-401, an oxidant-sensitive CO-releasing molecule. *Biochemical Pharmacology*, **2016**, 102, 64-77	6	58
124	Carbon monoxide-mediated activation of large-conductance calcium-activated potassium channels contributes to mesenteric vasodilatation in cirrhotic rats. *Journal of Pharmacology and Experimental Therapeutics*, **2007**, 321, 187-94	4.7	58
123	Protective role of heme oxygenases against endotoxin-induced diaphragmatic dysfunction in rats. *American Journal of Respiratory and Critical Care Medicine*, **2001**, 163, 753-61	10.2	58
122	Prevention of clinical and histological signs of proteolipid protein (PLP)-induced experimental allergic encephalomyelitis (EAE) in mice by the water-soluble carbon monoxide-releasing molecule (CORM)-A1. *Clinical and Experimental Immunology*, **2011**, 163, 368-74	6.2	57
121	Carbon monoxide rapidly impairs alveolar fluid clearance by inhibiting epithelial sodium channels. *American Journal of Respiratory Cell and Molecular Biology*, **2009**, 41, 639-50	5.7	57
120	Haem and nitric oxide: synergism in the modulation of the endothelial haem oxygenase-1 pathway. *Biochemical Journal*, **2003**, 372, 381-90	3.8	57
119	Generation of bile pigments by haem oxygenase: a refined cellular strategy in response to stressful insults. *Biochemical Society Symposia*, **2004**, 71, 177-92		57
118	Carbon monoxide released by CORM-401 uncouples mitochondrial respiration and inhibits glycolysis in endothelial cells: A role for mitoBKCa channels. *Biochimica Et Biophysica Acta - Bioenergetics*, **2015**, 1847, 1297-309	4.6	54
117	[(Eta-C5H4R)Fe(CO)2X], X = Cl, Br, I, NO3, CO2Me and [(eta-C5H4R)Fe(CO)3]+, R = (CH2)nCO2Me (n = 0-2), and CO2CH2CH2OH: a new group of CO-releasing molecules. *Dalton Transactions*, **2007**, 4962-73	4.3	54
116	A precursor of the nitric oxide donor SIN-1 modulates the stress protein heme oxygenase-1 in rat liver. *Biochemical and Biophysical Research Communications*, **1996**, 225, 167-72	3.4	54
115	Nrf2 activators modulate oxidative stress responses and bioenergetic profiles of human retinal epithelial cells cultured in normal or high glucose conditions. *Pharmacological Research*, **2015**, 99, 296-307	10.2	53
114	Treatment with carbon monoxide-releasing molecules and an HO-1 inducer enhances the effects and expression of μ-opioid receptors during neuropathic pain. *Anesthesiology*, **2013**, 118, 1180-97	4.3	52
113	Mitochondrial and cellular heme-dependent proteins as targets for the bioactive function of the heme oxygenase/carbon monoxide system. *Antioxidants and Redox Signaling*, **2007**, 9, 2139-55	8.4	51
112	Diverse Nrf2 Activators Coordinated to Cobalt Carbonyls Induce Heme Oxygenase-1 and Release Carbon Monoxide in Vitro and in Vivo. *Journal of Medicinal Chemistry*, **2016**, 59, 756-62	8.3	48
111	Protective effects of a carbon monoxide-releasing molecule (CORM-3) during hepatic cold preservation. *Cryobiology*, **2009**, 58, 248-55	2.7	48

110	Improved myocardial function after cold storage with preservation solution supplemented with a carbon monoxide-releasing molecule (CORM-3). *Journal of Heart and Lung Transplantation*, **2007**, 26, 1192-8	5.8	48
109	Antithrombotic properties of water-soluble carbon monoxide-releasing molecules. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2012**, 32, 2149-57	9.4	47
108	Carbon monoxide improves cardiac function and mitochondrial population quality in a mouse model of metabolic syndrome. *PLoS ONE*, **2012**, 7, e41836	3.7	47
107	Beneficial effects of carbon monoxide-releasing molecules on post-ischemic myocardial recovery. *Life Sciences*, **2007**, 80, 1619-26	6.8	45
106	Carbon monoxide reverses the metabolic adaptation of microglia cells to an inflammatory stimulus. *Free Radical Biology and Medicine*, **2017**, 104, 311-323	7.8	44
105	Design and synthesis of new hybrid molecules that activate the transcription factor Nrf2 and simultaneously release carbon monoxide. *Chemistry - A European Journal*, **2014**, 20, 14698-704	4.8	44
104	Cell-free hemoglobin potentiates acetylcholine-induced coronary vasoconstriction in rabbit hearts. *Journal of Applied Physiology*, **1993**, 75, 2224-33	3.7	44
103	Interaction of carbon monoxide with transition metals: evolutionary insights into drug target discovery. *Current Drug Targets*, **2010**, 11, 1595-604	3	44
102	Structure-activity relationships of methoxychalcones as inducers of heme oxygenase-1. *Chemical Research in Toxicology*, **2008**, 21, 1484-94	4	43
101	The carbon monoxide releasing molecule CORM-2 attenuates Pseudomonas aeruginosa biofilm formation. *PLoS ONE*, **2012**, 7, e35499	3.7	42
100	Carbon monoxide-releasing molecules: a pharmacological expedient to counteract inflammation. *Current Pharmaceutical Design*, **2008**, 14, 465-72	3.3	42
99	Inhibition of platelet aggregation by carbon monoxide-releasing molecules (CO-RMs): comparison with NO donors. *Naunyn-Schmiedeberg's Archives of Pharmacology*, **2012**, 385, 641-50	3.4	39
98	Positive inotropic effects of carbon monoxide-releasing molecules (CO-RMs) in the isolated perfused rat heart. *British Journal of Pharmacology*, **2006**, 149, 1104-12	8.6	39
97	HYCO-3, a dual CO-releaser/Nrf2 activator, reduces tissue inflammation in mice challenged with lipopolysaccharide. *Redox Biology*, **2019**, 20, 334-348	11.3	38
96	CO and CO-releasing molecules (CO-RMs) in acute gastrointestinal inflammation. *British Journal of Pharmacology*, **2015**, 172, 1557-73	8.6	37
95	Iron indenyl carbonyl compounds: CO-releasing molecules. *Dalton Transactions*, **2010**, 39, 8967-75	4.3	37
94	Changes in temperature modulate heme oxygenase-1 induction by curcumin in renal epithelial cells. *Biochemical and Biophysical Research Communications*, **2003**, 308, 950-5	3.4	37
93	CORM-3, a water soluble CO-releasing molecule, uncouples mitochondrial respiration via interaction with the phosphate carrier. *Biochimica Et Biophysica Acta - Bioenergetics*, **2014**, 1837, 201-9	4.6	35

92	MR (Mineralocorticoid Receptor) Induces Adipose Tissue Senescence and Mitochondrial Dysfunction Leading to Vascular Dysfunction in Obesity. *Hypertension*, **2019**, 73, 458-468	8.5	35
91	The CO-releasing molecule CORM-3 protects against articular degradation in the K/BxN serum transfer arthritis model. *European Journal of Pharmacology*, **2010**, 634, 184-91	5.3	33
90	Heme oxygenase is expressed in human pulmonary artery smooth muscle where carbon monoxide has an anti-proliferative role. *European Journal of Pharmacology*, **2003**, 473, 135-41	5.3	33
89	Heme oxygenase-1: an emerging therapeutic target to curb cardiac pathology. *Basic Research in Cardiology*, **2014**, 109, 450	11.8	32
88	P21-dependent protective effects of a carbon monoxide-releasing molecule-3 in pulmonary hypertension. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2014**, 34, 304-12	9.4	32
87	The carbon monoxide-releasing molecule, CORM-3 (RU(CO)(3) CL(glycinate)), targets respiration and oxidases in Campylobacter jejuni, generating hydrogen peroxide. *IUBMB Life*, **2011**, 63, 363-71	4.7	32
86	Polyamine conjugation of curcumin analogues toward the discovery of mitochondria-directed neuroprotective agents. *Journal of Medicinal Chemistry*, **2010**, 53, 7264-8	8.3	32
85	Antioxidant potential of CORM-A1 and resveratrol during TNF-α/cycloheximide-induced oxidative stress and apoptosis in murine intestinal epithelial MODE-K cells. *Toxicology and Applied Pharmacology*, **2015**, 288, 161-78	4.6	31
84	Carbon monoxide-induced metabolic switch in adipocytes improves insulin resistance in obese mice. *JCI Insight*, **2018**, 3,	9.9	31
83	Detection and Removal of Endogenous Carbon Monoxide by Selective and Cell-Permeable Hemoprotein Model Complexes. *Journal of the American Chemical Society*, **2017**, 139, 5984-5991	16.4	30
82	In vitro and in vivo effects of the carbon monoxide-releasing molecule, CORM-3, in the xenogeneic pig-to-primate context. *Xenotransplantation*, **2009**, 16, 99-114	2.8	30
81	Homocysteine attenuates endothelial haem oxygenase-1 induction by nitric oxide (NO) and hypoxia. *FEBS Letters*, **2001**, 508, 403-6	3.8	30
80	Heme oxygenase-1 induction attenuates senescence in chronic obstructive pulmonary disease lung fibroblasts by protecting against mitochondria dysfunction. *Aging Cell*, **2018**, 17, e12837	9.9	30
79	Hemin prevents in-stent stenosis in rat and rabbit models by inducing heme-oxygenase-1. *Journal of Vascular Surgery*, **2010**, 51, 417-28	3.5	29
78	A cytoprotective role for the heme oxygenase-1/CO pathway during neural differentiation of human mesenchymal stem cells. *Journal of Neuroscience Research*, **2008**, 86, 1927-35	4.4	29
77	A re-investigation of [Fe(L-cysteinate)2(CO)2]2-: an example of non-heme CO coordination of possible relevance to CO binding to ion channel receptors. *Dalton Transactions*, **2011**, 40, 8328-34	4.3	28
76	Carbon monoxide in biology and microbiology: surprising roles for the "Detroit perfume". *Advances in Microbial Physiology*, **2009**, 56, 85-167	4.4	28
75	Hemoglobin-nitric oxide interaction and its implications. *Transfusion Medicine Reviews*, **1996**, 10, 77-84	7.4	28

74	Functional and metabolic effects of propionyl-L-carnitine in the isolated perfused hypertrophied rat heart. *Molecular and Cellular Biochemistry*, **1992**, 116, 139-45	4.2	28
73	New Types of CO-Releasing Molecules (CO-RMs), Based on Iron Dithiocarbamate Complexes and [Fe(CO)3I(S2COEt)]. *Organometallics*, **2012**, 31, 5823-5834	3.8	27
72	A carbon monoxide-releasing molecule (CORM-3) abrogates polymorphonuclear granulocyte-induced activation of endothelial cells and mast cells. *FASEB Journal*, **2008**, 22, 3380-8	0.9	27
71	Oxidative injury in reoxygenated and reperfused hearts. *Free Radical Biology and Medicine*, **1994**, 16, 255-62	7.8	27
70	Vasorelaxing effects and inhibition of nitric oxide in macrophages by new iron-containing carbon monoxide-releasing molecules (CO-RMs). *Pharmacological Research*, **2013**, 68, 108-17	10.2	26
69	The comparative effects of the NOS inhibitor, Nomega-nitro-L-arginine, and the haemoxygenase inhibitor, zinc protoporphyrin IX, on tumour blood flow. *International Journal of Radiation Oncology Biology Physics*, **1998**, 42, 849-53	4	26
68	Carbonylmetallkomplexe – eine neue Klasse von Pharmazeutika?. *Angewandte Chemie*, **2003**, 115, 3850-3858	3.8	26
67	Differential Effects of CORM-2 and CORM-401 in Murine Intestinal Epithelial MODE-K Cells under Oxidative Stress. *Frontiers in Pharmacology*, **2017**, 8, 31	5.6	25
66	A water-soluble carbon monoxide-releasing molecule (CORM-3) lowers intraocular pressure in rabbits. *British Journal of Ophthalmology*, **2009**, 93, 254-7	5.5	25
65	Measuring left ventricular function in the normal, infarcted and CORM-3-preconditioned mouse heart using complex admittance-derived pressure volume loops. *Journal of Pharmacological and Toxicological Methods*, **2009**, 59, 94-9	1.7	25
64	Induction of heme oxygenase-1 in factor VIII-deficient mice reduces the immune response to therapeutic factor VIII. *Blood*, **2010**, 115, 2682-5	2.2	25
63	Effectiveness of novel imidazole-dioxolane heme oxygenase inhibitors in renal proximal tubule epithelial cells. *Journal of Pharmacology and Experimental Therapeutics*, **2007**, 323, 763-70	4.7	23
62	Curcumin reduces cold storage-induced damage in human cardiac myoblasts. *Experimental and Molecular Medicine*, **2007**, 39, 139-48	12.8	23
61	Derivatives of Sodium Boranocarbonate as Novel CO-Releasing Molecules (CO-RMs). *Chimia*, **2008**, 62, 277-279	1.3	22
60	Carbon monoxide shifts energetic metabolism from glycolysis to oxidative phosphorylation in endothelial cells. *FEBS Letters*, **2016**, 590, 3469-3480	3.8	22
59	Theoretical insights into the mechanism of carbon monoxide (CO) release from CO-releasing molecules. *Chemistry - A European Journal*, **2012**, 18, 9267-75	4.8	21
58	TNF-α cycloheximide-induced oxidative stress and apoptosis in murine intestinal epithelial MODE-K cells. *Current Pharmaceutical Design*, **2012**, 18, 4414-25	3.3	21
57	TLR4 activation alters labile heme levels to regulate BACH1 and heme oxygenase-1 expression in macrophages. *Free Radical Biology and Medicine*, **2019**, 137, 131-142	7.8	20

56	Human sickle cell blood modulates endothelial heme oxygenase activity: effects on vascular adhesion and reactivity. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2010**, 30, 305-12	9.4	20
55	Relaxant effect of a water soluble carbon monoxide-releasing molecule (CORM-3) on spontaneously hypertensive rat aortas. *Cardiovascular Drugs and Therapy*, **2012**, 26, 285-92	3.9	19
54	The interaction of nitric oxide with distinct hemoglobins differentially amplifies endothelial heme uptake and heme oxygenase-1 expression. *Journal of Pharmacology and Experimental Therapeutics*, **2006**, 317, 1125-33	4.7	19
53	Acute myocardial infarction in streptozotocin-induced hyperglycaemic rats: protection by a carbon monoxide-releasing molecule (CORM-3). *Naunyn-Schmiedeberg's Archives of Pharmacology*, **2012**, 385, 137-44	3.4	18
52	Permanent culture of macrophages at physiological oxygen attenuates the antioxidant and immunomodulatory properties of dimethyl fumarate. *Journal of Cellular Physiology*, **2015**, 230, 1128-38	7	17
51	Donor HO-1 expression inhibits intimal hyperplasia in unmanipulated graft recipients: a potential role for CD8+ T-cell modulation by carbon monoxide. *Transplantation*, **2009**, 88, 653-61	1.8	17
50	Vasoconstrictor effects in isolated rabbit heart perfused with bis(3,5-dibromosalicyl)fumarate cross-linked hemoglobin (alpha alpha Hb). *Artificial Cells, Blood Substitutes, and Biotechnology*, **1994**, 22, 565-75		17
49	Therapeutic effects of CO-releaser/Nrf2 activator hybrids (HYCOs) in the treatment of skin wound, psoriasis and multiple sclerosis. *Redox Biology*, **2020**, 34, 101521	11.3	16
48	CORM-401 induces calcium signalling, NO increase and activation of pentose phosphate pathway in endothelial cells. *FEBS Journal*, **2018**, 285, 1346-1358	5.7	16
47	Morphine-induced ocular hypotension is modulated by nitric oxide and carbon monoxide: role of mu3 receptors. *Journal of Ocular Pharmacology and Therapeutics*, **2010**, 26, 31-5	2.6	16
46	Role of carbon monoxide and biliverdin in renal ischemia/reperfusion injury. *Nephron Experimental Nephrology*, **2006**, 104, e135-9		16
45	Depression of endothelial and smooth muscle cell oxygen consumption by endotoxin. *American Journal of Physiology - Heart and Circulatory Physiology*, **1998**, 275, H776-82	5.2	16
44	Fibre type specificity of haem oxygenase-1 induction in rat skeletal muscle. *FEBS Letters*, **1999**, 458, 257-60	3.8	16
43	Modulation of cellular bioenergetics by CO-releasing molecules and NO-donors inhibits the interaction of cancer cells with human lung microvascular endothelial cells. *Pharmacological Research*, **2018**, 136, 160-171	10.2	15
42	Relationship between leukocyte kinetics and behavioral tests changes in the inflammatory process of hemorrhagic stroke recovery. *International Journal of Neuroscience*, **2010**, 120, 765-73	2	14
41	Effects of carbon monoxide on trout and lamprey vessels. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2009**, 296, R141-9	3.2	14
40	Nitric oxide synthase type I (nNOS), vascular endothelial growth factor (VEGF) and myoglobin-like expression in skeletal muscle of Antarctic icefishes (Notothenioidei: Channichthyidae). *Polar Biology*, **2003**, 26, 458-462	2	14
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