Ganesh K Kumar

List of Publications by Year
in descending order

75 papers	4,855 citations	81900 39 h-index	102487 66 g-index
76 all docs	76 docs citations	76 times ranked	3670 citing authors

#	Article	IF	Citations
1	Induction of sensory long-term facilitation in the carotid body by intermittent hypoxia: Implications for recurrent apneas. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10073-10078.	7.1	395
2	H ₂ S mediates O ₂ sensing in the carotid body. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10719-10724.	7.1	344
3	Heterozygous HIFâ€1Î± deficiency impairs carotid bodyâ€mediated systemic responses and reactive oxygen species generation in mice exposed to intermittent hypoxia. Journal of Physiology, 2006, 577, 705-716.	2.9	339
4	Intermittent hypoxia degrades HIF-2Î± via calpains resulting in oxidative stress: Implications for recurrent apnea-induced morbidities. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1199-1204.	7.1	163
5	Chronic intermittent hypoxia induces hypoxia-evoked catecholamine efflux in adult rat adrenal medulla via oxidative stress. Journal of Physiology, 2006, 575, 229-239.	2.9	162
6	Nitric oxide in the sensory function of the carotid body. Brain Research, 1993, 625, 16-22.	2.2	153
7	CARDIOVASCULAR ALTERATIONS BY CHRONIC INTERMITTENT HYPOXIA: IMPORTANCE OF CAROTID BODY CHEMOREFLEXES. Clinical and Experimental Pharmacology and Physiology, 2005, 32, 447-449.	1.9	131
8	Role of oxidative stress in intermittent hypoxia-induced immediate early gene activation in rat PC12 cells. Journal of Physiology, 2004, 557, 773-783.	2.9	129
9	ROS Signaling in Systemic and Cellular Responses to Chronic Intermittent Hypoxia. Antioxidants and Redox Signaling, 2007, 9, 1397-1404.	5.4	121
10	Mechanisms of sympathetic activation and blood pressure elevation by intermittent hypoxia. Respiratory Physiology and Neurobiology, 2010, 174, 156-161.	1.6	121
11	Epigenetic regulation of hypoxic sensing disrupts cardiorespiratory homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2515-2520.	7.1	120
12	Transcriptional responses to intermittent hypoxia. Respiratory Physiology and Neurobiology, 2008, 164, 277-281.	1.6	111
13	Hypoxia-inducible factor 2Î± (HIF-2Î±) heterozygous-null mice exhibit exaggerated carotid body sensitivity to hypoxia, breathing instability, and hypertension. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 3065-3070.	7.1	104
14	Oxidative stress in the systemic and cellular responses to intermittent hypoxia. Biological Chemistry, 2004, 385, 217-21.	2.5	101
15	Protein kinase Gâ€“regulated production of H ₂ S governs oxygen sensing. Science Signaling, 2015, 8, ra37.	3.6	101
16	Systemic, cellular and molecular analysis of chemoreflex-mediated sympathoexcitation by chronic intermittent hypoxia. Experimental Physiology, 2007, 92, 39-44.	2.0	89
17	Peripheral Chemoreception and Arterial Pressure Responses to Intermittent Hypoxia. , 2015, 5, 561-577.		87
18	Reactive oxygen species-dependent endothelin signaling is required for augmented hypoxic sensory response of the neonatal carotid body by intermittent hypoxia. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 296, R735-R742.	1.8	86

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19	Sympatho-adrenal activation by chronic intermittent hypoxia. Journal of Applied Physiology, 2012, 113, 1304-1310.	2.5	85
20	Central and peripheral factors contributing to obstructive sleep apneas. Respiratory Physiology and Neurobiology, 2013, 189, 344-353.	1.6	82
21	Release of dopamine and norepinephrine by hypoxia from PC-12 cells. American Journal of Physiology - Cell Physiology, 1998, 274, C1592-C1600.	4.6	81
22	Activation of nitric oxide synthase gene expression by hypoxia in central and peripheral neurons. Molecular Brain Research, 1996, 43, 341-346.	2.3	79
23	NADPH Oxidase 2 Mediates Intermittent Hypoxia-Induced Mitochondrial Complex I Inhibition: Relevance to Blood Pressure Changes in Rats. Antioxidants and Redox Signaling, 2011, 14, 533-542.	5.4	77
24	Regulation of hypoxiaâ€inducible factorâ€Î± isoforms and redox state by carotid body neural activity in rats. Journal of Physiology, 2014, 592, 3841-3858.	2.9	75
25	5-HT evokes sensory long-term facilitation of rodent carotid body via activation of NADPH oxidase. Journal of Physiology, 2006, 576, 289-295.	2.9	73
26	Mutual antagonism between hypoxia-inducible factors 1Î± and 2Î± regulates oxygen sensing and cardio-respiratory homeostasis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1788-96.	7.1	73
27	Inherent variations in CO-H ₂ S-mediated carotid body O ₂ sensing mediate hypertension and pulmonary edema. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1174-1179.	7.1	71
28	Hypoxia. 3. Hypoxia and neurotransmitter synthesis. American Journal of Physiology - Cell Physiology, 2011, 300, C743-C751.	4.6	69
29	NADPH Oxidase-Dependent Regulation of T-Type Ca²⁺Channels and Ryanodine Receptors Mediate the Augmented Exocytosis of Catecholamines from Intermittent Hypoxia-Treated Neonatal Rat Chromaffin Cells. Journal of Neuroscience, 2010, 30, 10763-10772.	3.6	68
30	Complementary roles of gasotransmitters CO and H ₂ S in sleep apnea. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1413-1418.	7.1	65
31	Altered carotid body function by intermittent hypoxia in neonates and adults: Relevance to recurrent apneas. Respiratory Physiology and Neurobiology, 2007, 157, 148-153.	1.6	63
32	Endogenous H₂S is required for hypoxic sensing by carotid body glomus cells. American Journal of Physiology - Cell Physiology, 2012, 303, C916-C923.	4.6	62
33	Intermittent hypoxia-induced endothelial barrier dysfunction requires ROS-dependent MAP kinase activation. American Journal of Physiology - Cell Physiology, 2014, 306, C745-C752.	4.6	59
34	Epigenetic regulation of redox state mediates persistent cardiorespiratory abnormalities after longâ€term intermittent hypoxia. Journal of Physiology, 2017, 595, 63-77.	2.9	53
35	Intermittent hypoxia augments acute hypoxic sensing via HIF-mediated ROS. Respiratory Physiology and Neurobiology, 2010, 174, 230-234.	1.6	51
36	Neonatal Intermittent Hypoxia Leads to Long-Lasting Facilitation of Acute Hypoxia-Evoked Catecholamine Secretion From Rat Chromaffin Cells. Journal of Neurophysiology, 2009, 101, 2837-2846.	1.8	50

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37	Activation of tyrosine hydroxylase by intermittent hypoxia: involvement of serine phosphorylation. Journal of Applied Physiology, 2003, 95, 536-544.	2.5	47
38	Analysis of expression and posttranslational modification of proteins during hypoxia. Journal of Applied Physiology, 2004, 96, 1178-1186.	2.5	43
39	Endothelin-1 mediates attenuated carotid baroreceptor activity by intermittent hypoxia. Journal of Applied Physiology, 2012, 112, 187-196.	2.5	43
40	Hypoxia-inducible factors and hypertension: lessons from sleep apnea syndrome. Journal of Molecular Medicine, 2015, 93, 473-480.	3.9	43
41	Angiotensin II evokes sensory long-term facilitation of the carotid body via NADPH oxidase. Journal of Applied Physiology, 2011, 111, 964-970.	2.5	42
42	H ₂ S production by reactive oxygen species in the carotid body triggers hypertension in a rodent model of sleep apnea. Science Signaling, 2016, 9, ra80.	3.6	39
43	Role of oxidative stressâ€induced endothelinâ€converting enzyme activity in the alteration of carotid body function by chronic intermittent hypoxia. Experimental Physiology, 2013, 98, 1620-1630.	2.0	38
44	Hypoxia-inducible factors regulate human and rat cystathionine Î²-synthase gene expression. Biochemical Journal, 2014, 458, 203-211.	3.7	36
45	Post-translational modification of proteins during intermittent hypoxia. Respiratory Physiology and Neurobiology, 2008, 164, 272-276.	1.6	33
46	Pattern-Specific Sustained Activation of Tyrosine Hydroxylase by Intermittent Hypoxia: Role of Reactive Oxygen Species-Dependent Downregulation of Protein Phosphatase 2A and Upregulation of Protein Kinases. Antioxidants and Redox Signaling, 2009, 11, 1777-1789.	5.4	33
47	Intermittent Hypoxiaâ€Mediated Plasticity of Acute O₂ Sensing Requires Altered Redâ€Ox Regulation by HIFâ€1 and HIFâ€2. Annals of the New York Academy of Sciences, 2009, 1177, 162-168.	3.8	33
48	Facilitation of dopamine and acetylcholine release by intermittent hypoxia in PC12 cells: involvement of calcium and reactive oxygen species. Journal of Applied Physiology, 2004, 96, 1206-1215.	2.5	32
49	Intermittent hypoxia activates peptidylglycine Î±-amidating monooxygenase in rat brain stem via reactive oxygen species-mediated proteolytic processing. Journal of Applied Physiology, 2009, 106, 12-19.	2.5	29
50	Nitric Oxide Synthase Activity in Guinea Pig Ventricular Myocytes Is Not Involved in Muscarinic Inhibition of cAMP-Regulated Ion Channels. Circulation Research, 1996, 78, 925-935.	4.5	28
51	Effect of mutations at Metâ€88 and Metâ€90 on the biotination of Lysâ€89 of the apo 1.3S subunit of transcarboxylase. FASEB Journal, 1988, 2, 2505-2511.	0.5	24
52	Hydrogen peroxide differentially affects activity in the pre-BÃ¶tzinger complex and hippocampus. Journal of Neurophysiology, 2011, 106, 3045-3055.	1.8	20
53	Regulation of Neuronal Nitric Oxide Synthase Gene Expression by Hypoxia. Advances in Experimental Medicine and Biology, 1996, 410, 345-348.	1.6	20
54	Primary structure of the 5 S subunit of transcarboxylase as deduced from the genomic DNA sequence. FEBS Letters, 1993, 330, 191-196.	2.8	19

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55	Neonatal intermittent hypoxia impairs neuronal nicotinic receptor expression and function in adrenal chromaffin cells. American Journal of Physiology - Cell Physiology, 2010, 299, C381-C388.	4.6	18
56	Enhanced Neuropeptide Y Synthesis During Intermittent Hypoxia in the Rat Adrenal Medulla: Role of Reactive Oxygen Speciesâ€"Dependent Alterations in Precursor Peptide Processing. Antioxidants and Redox Signaling, 2011, 14, 1179-1190.	5.4	18
57	Ca_V3.2 T-type Ca²⁺channels in H₂S-mediated hypoxic response of the carotid body. American Journal of Physiology - Cell Physiology, 2015, 308, C146-C154.	4.6	18
58	Reactive Oxygen Species Facilitate Oxygen Sensing. Novartis Foundation Symposium, 0, , 95-105.	1.1	15
59	H2S mediates carotid body response to hypoxia but not anoxia. Respiratory Physiology and Neurobiology, 2019, 259, 75-85.	1.6	14
60	CaV3.2 T-type Ca2+ channels mediate the augmented calcium influx in carotid body glomus cells by chronic intermittent hypoxia. Journal of Neurophysiology, 2016, 115, 345-354.	1.8	13
61	Postâ€translational modification of glutamic acid decarboxylase 67 by intermittent hypoxia: evidence for the involvement of dopamine D1 receptor signaling. Journal of Neurochemistry, 2010, 115, 1568-1578.	3.9	11
62	Carotid Body Chemoreflex Mediates Intermittent Hypoxia-Induced Oxidative Stress in the Adrenal Medulla. Advances in Experimental Medicine and Biology, 2015, 860, 195-199.	1.6	11
63	Tachykinins in the control of breathing by hypoxia: pre- and post-genomic era. Respiratory Physiology and Neurobiology, 2003, 135, 145-154.	1.6	10
64	Neuromolecular mechanisms mediating the effects of chronic intermittent hypoxia on adrenal medulla. Respiratory Physiology and Neurobiology, 2015, 209, 115-119.	1.6	10
65	Contrasting Effects of Intermittent and Continuous Hypoxia on Low O2 Evoked Catecholamine Secretion from Neonatal Rat Chromaffin Cells. Advances in Experimental Medicine and Biology, 2009, 648, 345-349.	1.6	10
66	Differential Regulation of Tyrosine Hydroxylase by Continuous and Intermittent Hypoxia. Advances in Experimental Medicine and Biology, 2012, 758, 381-385.	1.6	7
67	Identification of a cysteine involved in the interaction between carbon monoxide dehydrogenase and corrinoid/Fe-S protein fromClostridium thermoaceticum. FEBS Letters, 1993, 326, 281-284.	2.8	4
68	Adapt or avoid. ELife, 2016, 5, .	6.0	1
69	ABSENCE OF CAROTID BODY RESPONSES TO CHRONIC INTERMITTENT HYPOXIA IN MICE DEFICIENT IN HIFâ€1Ã¡: Implications in cardioâ€respiratory responses.. FASEB Journal, 2006, 20, A789.	0.5	0
70	Mechanisms of Mitochondrial Complex 1 Inhibition by Intermittent Hypoxia. FASEB Journal, 2008, 22, 960.6.	0.5	0
71	Postâ€translational modification of peptidylglycine Î±â€amidating monooxygenase by intermittent hypoxia. FASEB Journal, 2008, 22, 960.4.	0.5	0
72	Reactive oxygen speciesâ€dependent down regulation of protein phosphatase contributes to tyrosine hydroxylase activation by intermittent hypoxia. FASEB Journal, 2009, 23, 1038.4.	0.5	0

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73	Neuropeptide Y Signaling in Altered Catecholamine Synthesis during Intermittent Hypoxia. FASEB Journal, 2012, 26, 899.12.	0.5	0
74	Longâ€lasting increase in basal catecholamine secretion from neonatal adrenal medullary chromaffin cells by chronic intermittent hypoxia. FASEB Journal, 2013, 27, 938.8.	0.5	0
75	ROS Signaling in Cardiovascular Dysfunction Associated with Obstructive Sleep Apnea. Respiratory Medicine, 2014, , 71-91.	0.1	0