Prem Kumar

List of Publications by Year
in descending order

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54 papers	1,523 citations	516215 16 h-index	414034 32 g-index
56 all docs	56 docs citations	56 times ranked	1283 citing authors

#	Article	IF	Citations
1	Are Multiple Mitochondrial Related Signalling Pathways Involved in Carotid Body Oxygen Sensing?. Frontiers in Physiology, 2022, 13, .	1.3	5
2	LKB1 is the gatekeeper of carotid body chemosensing and the hypoxic ventilatory response. Communications Biology, 2022, 5, .	2.0	3
3	Î²-Adrenoceptor blockade prevents carotid body hyperactivity and elevated vascular sympathetic nerve density induced by chronic intermittent hypoxia. Pflugers Archiv European Journal of Physiology, 2021, 473, 37-51.	1.3	7
4	Mitochondrial Succinate Metabolism and Reactive Oxygen Species Are Important but Not Essential for Eliciting Carotid Body and Ventilatory Responses to Hypoxia in the Rat. Antioxidants, 2021, 10, 840.	2.2	13
5	G-Protein-Coupled Receptor (GPCR) Signaling in the Carotid Body: Roles in Hypoxia and Cardiovascular and Respiratory Disease. International Journal of Molecular Sciences, 2020, 21, 6012.	1.8	12
6	Adrenaline activation of the carotid body: Key to CO2 and pH homeostasis in hypoglycaemia and potential pathological implications in cardiovascular disease. Respiratory Physiology and Neurobiology, 2019, 265, 92-99.	0.7	10
7	Ectoâ€5â€²â€nucleotidase (CD73) regulates peripheral chemoreceptor activity and cardiorespiratory responses to hypoxia. Journal of Physiology, 2018, 596, 3137-3148.	1.3	15
8	Is Carotid Body Physiological O2 Sensitivity Determined by a Unique Mitochondrial Phenotype?. Frontiers in Physiology, 2018, 9, 562.	1.3	15
9	Measuring changes in chest wall motion after lung resection using structured light plethysmography: a feasibility study. Interactive Cardiovascular and Thoracic Surgery, 2016, 23, 544-547.	0.5	17
10	Adrenaline release evokes hyperpnoea and an increase in ventilatory CO₂ sensitivity during hypoglycaemia: a role for the carotid body. Journal of Physiology, 2016, 594, 4439-4452.	1.3	31
11	Chest wall mechanics before and after diaphragm plication. Journal of Cardiothoracic Surgery, 2016, 11, 25.	0.4	13
12	Moderate inhibition of mitochondrial function augments carotid body hypoxic sensitivity. Pflugers Archiv European Journal of Physiology, 2016, 468, 143-155.	1.3	17
13	AMP-activated Protein Kinase Deficiency Blocks the Hypoxic Ventilatory Response and Thus Precipitates Hypoventilation and Apnea. American Journal of Respiratory and Critical Care Medicine, 2016, 193, 1032-1043.	2.5	41
14	Surgery corrects asynchrony of ribcage secondary to extra-thoracic tumor but leads to expiratory dysfunction during exercise. Journal of Cardiothoracic Surgery, 2015, 10, 187.	0.4	1
15	Mild Chronic Intermittent Hypoxia in Wistar Rats Evokes Significant Cardiovascular Pathophysiology but No Overt Changes in Carotid Body-Mediated Respiratory Responses. Advances in Experimental Medicine and Biology, 2015, 860, 245-254.	0.8	7
16	Ecto-5â€²-Nucleotidase, Adenosine and Transmembrane Adenylyl Cyclase Signalling Regulate Basal Carotid Body Chemoafferent Outflow and Establish the Sensitivity to Hypercapnia. Advances in Experimental Medicine and Biology, 2015, 860, 279-289.	0.8	13
17	Glycogen metabolism protects against metabolic insult to preserve carotid body function during glucose deprivation. Journal of Physiology, 2014, 592, 4493-4506.	1.3	17
18	The impact of acute and chronic catecholamines on respiratory responses to hypoxic stress in the rat. Pflugers Archiv European Journal of Physiology, 2013, 465, 209-219.	1.3	8

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19	Bicarbonate-sensitive soluble and transmembrane adenylyl cyclases in peripheral chemoreceptors. Respiratory Physiology and Neurobiology, 2013, 188, 83-93.	0.7	14
20	Longâ€term facilitation of ventilation following acute continuous hypoxia in awake humans during sustained hypercapnia. Journal of Physiology, 2012, 590, 5151-5165.	1.3	34
21	Ion Channel Regulation by the LKB1-AMPK Signalling Pathway: The Key to Carotid Body Activation by Hypoxia and Metabolic Homeostasis at the Whole Body Level. Advances in Experimental Medicine and Biology, 2012, 758, 81-90.	0.8	13
22	The carotid body in cardiovascular disease: more chicken and egg than horse and cart?. Journal of Physiology, 2012, 590, 4123-4123.	1.3	3
23	Foreword. Respiratory Physiology and Neurobiology, 2012, 184, 115-116.	0.7	0
24	Peripheral Chemoreceptors: Function and Plasticity of the Carotid Body. , 2012, 2, 141-219.		421
25	The Interaction Between Low Glucose and Hypoxia in the in vitro, Rat Carotid Body. Advances in Experimental Medicine and Biology, 2012, 758, 123-127.	0.8	4
26	Ion channel regulation by the Lkb1â€AMPK signalling pathway: the key to carotid body activation by hypoxia and metabolic homeostasis at the whole body level. FASEB Journal, 2012, 26, 897.4.	0.2	0
27	Comments on Point:Counterpoint: High altitude is/is not for the birds!. Journal of Applied Physiology, 2011, 111, 1520-1524.	1.2	1
28	A respiratory response to the activation of the muscle metaboreflex during concurrent hypercapnia in man. Experimental Physiology, 2010, 95, 194-201.	0.9	19
29	Ion Channel Regulation by AMPK. Annals of the New York Academy of Sciences, 2009, 1177, 89-100.	1.8	42
30	Systemic Effects Resulting from Carotid Body Stimulationâ€“Invited Article. Advances in Experimental Medicine and Biology, 2009, 648, 223-233.	0.8	40
31	Key Roles for AMP-activated Protein Kinase in the Function of the Carotid Body?. Advances in Experimental Medicine and Biology, 2008, 605, 63-68.	0.8	8
32	AMP-activated Protein Kinase Mediates Carotid Body Excitation by Hypoxia. Journal of Biological Chemistry, 2007, 282, 8092-8098.	1.6	126
33	Respiratory chemoreceptor function in vertebrates comparative and evolutionary aspects. Integrative and Comparative Biology, 2007, 47, 592-600.	0.9	25
34	Adequate stimuli of the carotid body: More than an oxygen sensor?. Respiratory Physiology and Neurobiology, 2007, 157, 12-21.	0.7	61
35	Sensing hypoxia: Carotid body mechanisms and reflexes in health and disease. Respiratory Physiology and Neurobiology, 2007, 157, 1-3.	0.7	16
36	Calcium oscillations induced by ATP in human umbilical cord smooth muscle cells. Journal of Cellular Physiology, 2007, 213, 79-87.	2.0	13

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37	How sweet it is: sensing low glucose in the carotid body. Journal of Physiology, 2007, 578, 627-627.	1.3	14
38	Sensing hypoxia in the carotid body: from stimulus to response. Essays in Biochemistry, 2007, 43, 43-60.	2.1	46
39	Translating blood-borne stimuli: chemotransduction in the carotid body. Acta Physiologica Sinica, 2007, 59, 128-32.	0.5	2
40	AMP-activated protein kinase: function and dysfunction in health and disease. Journal of Physiology, 2006, 574, 3-6.	1.3	5
41	Adrenaline Increases Carotid Body CO2 Sensitivity: An in vivo Study. , 2006, 580, 245-250.		8
42	A role for TRP channels in carotid body chemotransduction?. FASEB Journal, 2006, 20, A1229.	0.2	1
43	Direct inhibition of TRPC3 by polyunsaturated fatty acids in MCFâ€7 breast cancer cells. FASEB Journal, 2006, 20, A329.	0.2	0
44	Calcium oscillations induced by ATP in human umbilical cord smooth muscle cells. FASEB Journal, 2006, 20, A1175.	0.2	0
45	Does AMP-activated Protein Kinase Couple Inhibition of Mitochondrial Oxidative Phosphorylation by Hypoxia to Calcium Signaling in O2-sensing Cells?. Journal of Biological Chemistry, 2005, 280, 41504-41511.	1.6	160
46	Acidosis abolishes the effect of repeated applications of ATP on pulmonary artery force and [Ca2+]i. Respiratory Physiology and Neurobiology, 2004, 141, 157-166.	0.7	1
47	Regulation of K+ Currents by CO in Carotid Body type I Cells and Pulmonary Artery Smooth Muscle Cells. Advances in Experimental Medicine and Biology, 2003, 536, 147-154.	0.8	1
48	A Possible Dual Site of Action for Carbon Monoxideâ€Mediated Chemoexcitation in the Rat Carotid Body. Journal of Physiology, 2002, 543, 933-945.	1.3	23
49	Elevation of Metabolic Rate by Pyrogen Administration Does Not Affect the Gain of Respiratory Peripheral Chemoreflexes in Unanesthetized Kittens. Pediatric Research, 1998, 44, 357-362.	1.1	3
50	The effects of pharmacological modulation of KATP on the guinea-pig isolated diaphragm. European Journal of Pharmacology, 1996, 302, 79-88.	1.7	9
51	The Respiratory Response of Healthy Term Infants to Breath-by-Breath Alternations in Inspired Oxygen at Two Postnatal Ages. Pediatric Research, 1994, 35, 321-323.	1.1	38
52	Absence of Ventilatory Responses to Alternating Breaths of Mild Hypoxia and Air in Infants Who Have Had Bronchopulmonary Dysplasia: Implications for the Risk of Sudden Infant Death. Pediatric Research, 1994, 35, 677-681.	1.1	91
53	Chemoreceptor Function in the Fetus and Neonate. Advances in Experimental Medicine and Biology, 1994, 360, 99-108.	0.8	17
54	AMP-Activated Protein Kinase Couples Mitochondrial Inhibition by Hypoxia to Cell-Specific Ca2+ Signalling Mechanisms in Oxygensensing Cells. Novartis Foundation Symposium, 0, , 234-258.	1.2	19