

Richard J A Wilson

List of Publications by Year in descending order

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Version: 2024-02-01

113
papers

2,175
citations

218381

26
h-index

264894

42
g-index

116
all docs

116
docs citations

116
times ranked

1835
citing authors

#	ARTICLE	IF	CITATIONS
1	The molecular makeup of peripheral and central baroreceptors: stretching a role for Transient Receptor Potential (TRP), Epithelial Sodium Channel (ENaC), Acid Sensing Ion Channel (ASIC), and Piezo channels. <i>Cardiovascular Research</i> , 2022, 118, 3052-3070.	1.8	6
2	Novel oxygen sensing mechanism in the spinal cord involved in cardiorespiratory responses to hypoxia. <i>Science Advances</i> , 2022, 8, eabm1444.	4.7	13
3	Advancing respiratory cardiovascular physiology with the working heart brainstem preparation over 25 years. <i>Journal of Physiology</i> , 2022, 600, 2049-2075.	1.3	22
4	Effects of Sustained Hypobaric Hypoxia on Amplitude of Forced Hemodynamic Oscillations During Central Hypovolemia. <i>FASEB Journal</i> , 2022, 36, .	0.2	0
5	Functional optical coherence tomography at altitude: retinal microvascular perfusion and retinal thickness at 3,800 meters. <i>Journal of Applied Physiology</i> , 2022, 133, 534-545.	1.2	2
6	Impaired cardiorespiratory responses to hypercapnia in neonatal mice lacking PAC1 but not VPAC2 receptors. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2021, 320, R116-R128.	0.9	2
7	PKC μ stimulation of TRPV1 orchestrates carotid body responses to asthma. <i>Journal of Physiology</i> , 2021, 599, 1335-1354.	1.3	18
8	Time course and magnitude of ventilatory and renal acid-base acclimatization following rapid ascent to and residence at 3,800 m over nine days. <i>Journal of Applied Physiology</i> , 2021, 130, 1705-1715.	1.2	12
9	Sex Differences in Vascular Reactivity with Acute and Chronic Hypoxia. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
10	Epithelial Barrier Dysfunction Is Mediated by Lysophosphatidic Acid and Associated Cytokines. , 2021, , .		0
11	Duration at High Altitude Influences the Onset of Arrhythmogenesis During Apnea. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
12	The Effects of Hypoxia-Induced Central Sleep Apnea on Splenic Contraction and Oxygen Carrying Capacity. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
13	Suppression of Carotid Body Signalling Reduces Asthmatic Inflammation. , 2021, , .		0
14	Peaks and valleys: oscillatory cerebral blood flow at high altitude protects cerebral tissue oxygenation. <i>Physiological Measurement</i> , 2021, 42, 064005.	1.2	9
15	The effects of acute incremental hypocapnia on the magnitude of neurovascular coupling in healthy participants. <i>Physiological Reports</i> , 2021, 9, e14952.	0.7	2
16	Asthmatic allergen inhalation sensitises carotid bodies to lysophosphatidic acid. <i>Journal of Neuroinflammation</i> , 2021, 18, 191.	3.1	7
17	Syncope and silent hypoxemia in COVID-19: Implications for the autonomic field. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2021, 235, 102842.	1.4	9
18	Interleukin-4 Programmed Macrophages Suppress Colitis and Do Not Enhance Infectious-Colitis, Inflammation-Associated Colon Cancer or Airway Hypersensitivity. <i>Frontiers in Immunology</i> , 2021, 12, 744738.	2.2	3

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19	Duration at high altitude influences the onset of arrhythmogenesis during apnea. <i>European Journal of Applied Physiology</i> , 2021, 122, 475.	1.2	2
20	Editorial: Hypoxia and Cardiorespiratory Control. <i>Frontiers in Physiology</i> , 2021, 12, 820815.	1.3	2
21	Th2 Cytokines Stimulate Carotid Body Chemoreceptors via TRPV1 Channels. , 2020, , .		0
22	Angiotensin II-Type I Receptor Antagonism Does Not Influence the Chemoreceptor Reflex or Hypoxia-Induced Central Sleep Apnea in Men. <i>Frontiers in Neuroscience</i> , 2020, 14, 382.	1.4	7
23	Intestinal fungi are causally implicated in microbiome assembly and immune development in mice. <i>Nature Communications</i> , 2020, 11, 2577.	5.8	151
24	The Impact of Acute High Altitude Exposure (3800m) And Isocapnic Hypoxia/Hyperoxia on Neurovascular Coupling in Healthy Volunteers. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
25	Severity of Central Sleep Apnea Does Not Improve Sleeping Oxygen Saturation During Ascent to High Altitude. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
26	Sympathetic Preganglionic Neurons (SPNs): a Promising Target to Regain Cardiorespiratory Control in Spinal Cord Injured (SCI) Patients. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
27	Spinal Oxygen Sensors (SOS): A Novel Oxygen Sensing Mechanism Involved in Cardiovascular Responses to Hypoxia. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
28	Carotid body-specific shRNA knockdown of PKC ϵ blunts TRPV1-dependent asthmatic bronchoconstriction. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
29	Putative Sympathetic Oscillator in the Thoracic Spinal Cord of the Bullfrog. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
30	PACAP-PAC1 Receptor Activation Is Necessary for the Sympathetic Response to Acute Intermittent Hypoxia. <i>Frontiers in Neuroscience</i> , 2019, 13, 881.	1.4	7
31	Functional-Optical Coherence Tomography: A Non-invasive Approach to Assess the Sympathetic Nervous System and Intrinsic Vascular Regulation. <i>Frontiers in Physiology</i> , 2019, 10, 1146.	1.3	15
32	Impaired neonatal cardiorespiratory responses to hypoxia in mice lacking PAC1 or VPAC2 receptors. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2019, 316, R594-R606.	0.9	8
33	Induction of asthma causes sensitization of the carotid bodies to lysophosphatidic acid. <i>FASEB Journal</i> , 2019, 33, 1b580.	0.2	0
34	Acute intermittent hypoxia with concurrent hypercapnia evokes P2X and TRPV1 receptor-dependent sensory long-term facilitation in naïve carotid bodies. <i>Journal of Physiology</i> , 2018, 596, 3149-3169.	1.3	27
35	Developmental Maturation of Functional Coupling Between Ventilatory Oscillators in the American Bullfrog. <i>Developmental Neurobiology</i> , 2018, 78, 1218-1230.	1.5	5
36	Preventing acute asthmatic symptoms by targeting a neuronal mechanism involving carotid body lysophosphatidic acid receptors. <i>Nature Communications</i> , 2018, 9, 4030.	5.8	42

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37	ROHHAD and Prader-Willi syndrome (PWS): clinical and genetic comparison. Orphanet Journal of Rare Diseases, 2018, 13, 124.	1.2	27
38	Vagal TRPV1 activation exacerbates thermal hyperpnea and increases susceptibility to experimental febrile seizures in immature rats. Neurobiology of Disease, 2018, 119, 172-189.	2.1	10
39	Drowning a frog respiratory oscillator in a wash of network excitability. FASEB Journal, 2018, 32, .	0.2	0
40	A novel noninvasive method to measure sympathetic activity and autoregulation in humans. FASEB Journal, 2018, 32, 920.4.	0.2	0
41	Pituitary adenylate cyclase-activating polypeptide drives cardiorespiratory responses to heat stress in neonatal mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2017, 313, R385-R394.	0.9	7
42	Integration of Central and Peripheral Respiratory Chemoreflexes. , 2016, 6, 1005-1041.		47
43	Interactive effects of maternal cigarette smoke, heat stress, hypoxia, and lipopolysaccharide on neonatal cardiorespiratory and cytokine responses. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2016, 311, R1113-R1124.	0.9	7
44	Prelude Special Issue: Control of breathing in non-mammalian vertebrates. Respiratory Physiology and Neurobiology, 2016, 224, 1.	0.7	0
45	TRPV1 deletion exacerbates hyperthermic seizures in an age-dependent manner in mice. Epilepsy Research, 2016, 128, 27-34.	0.8	10
46	Cardiorespiratory control and cytokine profile in response to heat stress, hypoxia, and lipopolysaccharide (LPS) exposure during early neonatal period. Physiological Reports, 2016, 4, e12688.	0.7	15
47	Absence of mutations in HCRT , HCRTR1 and HCRTR2 in patients with ROHHAD. Respiratory Physiology and Neurobiology, 2016, 221, 59-63.	0.7	19
48	Diving into the mammalian swamp of respiratory rhythm generation with the bullfrog. Respiratory Physiology and Neurobiology, 2016, 224, 37-51.	0.7	18
49	Testing the evolutionary conservation of vocal motoneurons in vertebrates. Respiratory Physiology and Neurobiology, 2016, 224, 2-10.	0.7	23
50	The Role of RVLM and PACAP in Sympathetic Response and Breathing Stability. Canadian Journal of Neurological Sciences, 2015, 42, S7-S7.	0.3	0
51	Rapid-Onset Obesity with Hypothalamic Dysfunction, Hypoventilation, and Autonomic Dysregulation (ROHHAD): exome sequencing of trios, monozygotic twins and tumours. Orphanet Journal of Rare Diseases, 2015, 10, 103.	1.2	45
52	Three brainstem areas involved in respiratory rhythm generation in bullfrogs. Journal of Physiology, 2015, 593, 2941-2954.	1.3	25
53	Surgical preparation of mice for recording cardiorespiratory parameters in vivo. Journal of Neuroscience Methods, 2015, 248, 41-45.	1.3	5
54	Zac1 Regulates the Differentiation and Migration of Neocortical Neurons via Pac1. Journal of Neuroscience, 2015, 35, 13430-13447.	1.7	34

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55	The effects of sex and neonatal stress on pituitary adenylate cyclase-activating peptide expression. <i>Experimental Physiology</i> , 2015, 100, 203-215.	0.9	8
56	Spinal Oxygen Sensors (SOS) drive sympathetic activity that precedes, predicts and outlives phrenic gasps during hypoxia in the absence of the brainstem. <i>FASEB Journal</i> , 2015, 29, 859.7.	0.2	2
57	Oscillating wildly: Turning the evolution of respiratory rhythm generation on its head. <i>FASEB Journal</i> , 2015, 29, 1033.7.	0.2	0
58	Lamprey breathing when feeding sucks: the respiratory rhythm generator of a parasitic fish. <i>Journal of Physiology</i> , 2014, 592, 1725-1726.	1.3	1
59	Novel method for conscious airway resistance and ventilation estimation in neonatal rodents using plethysmography and a mechanical lung. <i>Respiratory Physiology and Neurobiology</i> , 2014, 201, 75-83.	0.7	11
60	Methylxanthine reversal of opioid-induced respiratory depression in the neonatal rat: Mechanism and location of action. <i>Respiratory Physiology and Neurobiology</i> , 2014, 200, 80-89.	0.7	12
61	Stress peptide PACAP stimulates and stabilizes neonatal breathing through distinct mechanisms. <i>Respiratory Physiology and Neurobiology</i> , 2013, 187, 217-223.	0.7	9
62	Transmission of the respiratory rhythm to trigeminal and hypoglossal motor neurons in the American Bullfrog (<i>Lithobates catesbeiana</i>). <i>Respiratory Physiology and Neurobiology</i> , 2013, 188, 180-191.	0.7	15
63	PACAP causes the long-term increase in sympathetic activity evoked by acute intermittent hypoxia. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2013, 177, 22-23.	1.4	0
64	Stress peptide PACAP engages multiple signaling pathways within the carotid body to initiate excitatory responses in respiratory and sympathetic chemosensory afferents. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2013, 304, R1070-R1084.	0.9	15
65	CrossTalk opposing view: Peripheral and central chemoreceptors have hypoadditive effects on respiratory motor output. <i>Journal of Physiology</i> , 2013, 591, 4355-4357.	1.3	31
66	Analysis of PAC1 receptor gene variants in Caucasian and African American infants dying of sudden infant death syndrome. <i>Acta Paediatrica, International Journal of Paediatrics</i> , 2013, 102, e546-e552.	0.7	12
67	The essential role of peripheral respiratory chemoreceptor inputs in maintaining breathing revealed when CO ₂ stimulation of central chemoreceptors is diminished. <i>Journal of Physiology</i> , 2013, 591, 1507-1521.	1.3	26
68	Localization of essential rhombomeres for respiratory rhythm generation in bullfrog tadpoles using a binary search algorithm: Rhombomere 7 is essential for the gill rhythm and suppresses lung bursts before metamorphosis. <i>Developmental Neurobiology</i> , 2013, 73, 888-898.	1.5	17
69	Rebuttal by Richard J. A. Wilson and Trevor A. Day. <i>Journal of Physiology</i> , 2013, 591, 4365-4365.	1.3	4
70	Anandamide modulates carotid sinus nerve afferent activity via TRPV1 receptors increasing responses to heat. <i>Journal of Applied Physiology</i> , 2012, 112, 212-224.	1.2	36
71	Investigations Of Mechanisms Of Carbon Dioxide-Induced Bronchial Smooth Muscle Relaxation. , 2012, , ,		0
72	Neural activity and branching of embryonic retinal ganglion cell dendrites. <i>Mechanisms of Development</i> , 2012, 129, 125-135.	1.7	8

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73	The Study of Respiratory Chemoreflexes Using a Novel Dual-Perfused Rodent Preparation. <i>Neuromethods</i> , 2012, , 385-403.	0.2	1
74	Methylxanthine reversal of opioid-induced respiratory depression in the in situ neonatal rat working heart-brainstem preparation. <i>FASEB Journal</i> , 2012, 26, 1088.9.	0.2	0
75	Identification of lung priming area in frog brainstem, adjacent to the lung oscillator, distinct from the buccal oscillator: homologous to RTN/pFRG?. <i>FASEB Journal</i> , 2012, 26, 895.1.	0.2	0
76	Rapid-Onset Obesity With Hypothalamic Dysfunction, Hypoventilation, and Autonomic Dysregulation: Analysis of Hypothalamic and Autonomic Candidate Genes. <i>Pediatric Research</i> , 2011, 70, 375-378.	1.1	66
77	Evolution of Vertebrate Respiratory Control. , 2009, , 67-76.		0
78	Sudden infant death syndrome (SIDS) in African Americans: polymorphisms in the gene encoding the stress peptide pituitary adenylate cyclase-activating polypeptide (PACAP). <i>Acta Paediatrica, International Journal of Paediatrics</i> , 2009, 98, 482-489.	0.7	31
79	A negative interaction between brainstem and peripheral respiratory chemoreceptors modulates peripheral chemoreflex magnitude. <i>Journal of Physiology</i> , 2009, 587, 883-896.	1.3	63
80	Carotid Body Chemoreceptors and Respiratory Drive. , 2009, , 571-576.		1
81	Pituitary adenylate cyclase-activating polypeptide is vital for neonatal survival and the neuronal control of breathing. <i>Respiratory Physiology and Neurobiology</i> , 2008, 164, 168-178.	0.7	34
82	A Negative Interaction Between Central and Peripheral Respiratory Chemoreceptors May Underlie Sleep-Induced Respiratory Instability: A Novel Hypothesis. <i>Advances in Experimental Medicine and Biology</i> , 2008, 605, 447-451.	0.8	14
83	Superoxide Dismutase-1 Influences the Timing and Post-hypoxic Stability of Neonatal Breathing. <i>Advances in Experimental Medicine and Biology</i> , 2008, 605, 133-138.	0.8	1
84	Integration in Respiratory Control. <i>Advances in Experimental Medicine and Biology</i> , 2008, , .	0.8	2
85	Pituitary adenylate cyclase-activating polypeptide maintains neonatal breathing but not metabolism during mild reductions in ambient temperature. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2008, 294, R956-R965.	0.9	20
86	Respiratory Control in Neonatal Rats Exposed to Prenatal Cigarette Smoke. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2008, 177, 1255-1261.	2.5	31
87	14-3-3. , 2008, , 1-1.		2
88	Evidence suggesting three respiratory oscillators in frogs (<i>Rana catesbeiana</i>): implications for the Oscillator Homology Hypothesis and the evolution of breathing.. <i>FASEB Journal</i> , 2008, 22, 755.14.	0.2	0
89	Brainstem PCO ₂ modulates phrenic responses to specific carotid body hypoxia in an in situ dual perfused rat preparation. <i>Journal of Physiology</i> , 2007, 578, 843-857.	1.3	61
90	Phylogeny of vertebrate respiratory rhythm generators: The Oscillator Homology Hypothesis. <i>Respiratory Physiology and Neurobiology</i> , 2006, 154, 47-60.	0.7	37

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91	Lung and Buccal Ventilation in the Frog: Uncoupling Coupled Oscillators. <i>Physiological and Biochemical Zoology</i> , 2006, 79, 1010-1018.	0.6	35
92	Two-oscillator model of ventilatory rhythmogenesis in the frog. <i>Neurocomputing</i> , 2005, 65-66, 751-757.	3.5	12
93	Ancient gill and lung oscillators may generate the respiratory rhythm of frogs and rats. <i>Journal of Neurobiology</i> , 2005, 62, 369-385.	3.7	79
94	Time-dependent modulation of carotid body afferent activity during and after intermittent hypoxia. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 288, R1571-R1580.	0.9	40
95	Specific carotid body chemostimulation is sufficient to elicit phrenic poststimulus frequency decline in a novel in situ dual-perfused rat preparation. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 289, R532-R544.	0.9	23
96	A SIDS-Like Phenotype is Associated With Reduced Respiratory Chemosponses in PACAP Deficient Neonatal Mice. <i>Advances in Experimental Medicine and Biology</i> , 2004, 551, 77-83.	0.8	10
97	Integrated and Sequence-Ordered BAC- and YAC-Based Physical Maps for the Rat Genome. <i>Genome Research</i> , 2004, 14, 766-779.	2.4	44
98	Sudden neonatal death in PACAP-deficient mice is associated with reduced respiratory chemoresponse and susceptibility to apnoea. <i>Journal of Physiology</i> , 2004, 555, 15-26.	1.3	75
99	Central respiratory activity of the tadpole in vitro brain stem is modulated diversely by nitric oxide. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2002, 283, R417-R428.	0.9	25
100	Serotonergic sensory-motor neurons mediate a behavioral response to hypoxia in pond snail embryos. <i>Journal of Neurobiology</i> , 2002, 52, 73-83.	3.7	57
101	Evidence that ventilatory rhythmogenesis in the frog involves two distinct neuronal oscillators. <i>Journal of Physiology</i> , 2002, 540, 557-570.	1.3	92
102	Oxygen sensitive chemoreceptors in the first gill arch of the tadpole, <i>Rana catesbeiana</i> . <i>Canadian Journal of Physiology and Pharmacology</i> , 2001, 79, 959-962.	0.7	11
103	Brain stem P ₅₀ and pH of the working heart-brain stem preparation during vascular perfusion with aqueous medium. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 281, R528-R538.	0.9	41
104	Evolution of central respiratory chemoreception: a new twist on an old story. <i>Respiration Physiology</i> , 2001, 129, 211-217.	2.8	32
105	Which came first, the lung or the breath?. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2001, 129, 37-47.	0.8	97
106	Chemical and thermal stimuli have short-lived effects on the Retzius cell in the medicinal leech. , 2000, 43, 304-311.		11
107	Developmental disinhibition: Turning off inhibition turns on breathing in vertebrates. <i>Journal of Neurobiology</i> , 2000, 45, 75-83.	3.7	118
108	Baclofen eliminates cluster lung breathing of the tadpole brainstem, in vitro. <i>Neuroscience Letters</i> , 2000, 292, 13-16.	1.0	31

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109	Respiratory activity in neonatal rats. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2000, 84, 19-29.	1.4	65
110	Biomechanics of Hydroskeletons: Studies of Crawling in the Medicinal Leech. , 2000, , 206-220.		6
111	Native Canadians relocating for renal dialysis. Psychosocial and cultural issues. <i>Canadian Family Physician</i> , 1994, 40, 1934-41.	0.1	22
112	Artificially Induced Nerve Cell Patterning or Real Neural Networks. , 1992, , 201-206.		2
113	Incidence and prevalence of end-stage renal disease among Ontario's James Bay Cree. <i>Canadian Journal of Public Health</i> , 1992, 83, 143-6.	1.1	10