Daniel K Mulkey

List of Publications by Year
in descending order

78 papers	3,530 citations	172457 29 h-index	138484 58 g-index
100 all docs	100 docs citations	100 times ranked	2384 citing authors

#	Article	IF	Citations
1	Putative Roles of Astrocytes in General Anesthesia. Current Neuropharmacology, 2022, 20, 5-15.	2.9	9
2	5â€HT7 receptors expressed in the mouse parafacial region are not required for respiratory chemosensitivity. Journal of Physiology, 2022, 600, 2789-2811.	2.9	5
3	5â€HT7 receptors expressed in the mouse parafacial region are not required for respiratory chemosensitivity. FASEB Journal, 2022, 36, .	0.5	0
4	The retrotrapezoid nucleus and the neuromodulation of breathing. Journal of Neurophysiology, 2021, 125, 699-719.	1.8	14
5	K ir 5. 1â€dependent CO 2 /H + â€sensitive currents contribute to astrocyte heterogeneity across brain regions. Glia, 2021, 69, 310-325.	4.9	15
6	Somatostatin-expressing parafacial neurons are CO2/H+ sensitive and regulate baseline breathing. ELife, 2021, 10, .	6.0	9
7	Histamine Activates Chemosensitive Neurons in the Retrotrapezoid Nucleus. FASEB Journal, 2021, 35, .	0.5	0
8	Disordered breathing in a Pitt-Hopkins syndrome model involves Phox2b-expressing parafacial neurons and aberrant Nav1.8 expression. Nature Communications, 2021, 12, 5962.	12.8	14
9	Isoflurane inhibits a Kir4.1/5.1-like conductance in neonatal rat brainstem astrocytes and recombinant Kir4.1/5.1 channels in a heterologous expression system. Journal of Neurophysiology, 2020, 124, 740-749.	1.8	6
10	Volatile Anesthetics Activate a Leak Sodium Conductance in Retrotrapezoid Nucleus Neurons to Maintain Breathing during Anesthesia in Mice. Anesthesiology, 2020, 133, 824-838.	2.5	18
11	Vascular control of the CO2/H+-dependent drive to breathe. ELife, 2020, 9, .	6.0	23
12	HCN as a Mediator of Urinary Homeostasis: Age-Associated Changes in Expression and Function in Adrenergic Detrusor Relaxation. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2019, 74, 325-329.	3.6	8
13	Cholinergic neurons in the pedunculopontine tegmental nucleus modulate breathing in rats by direct projections to the retrotrapezoid nucleus. Journal of Physiology, 2019, 597, 1919-1934.	2.9	21
14	Disordered breathing in a mouse model of Dravet syndrome. ELife, 2019, 8, .	6.0	50
15	Inhibition of the hypercapnic ventilatory response by adenosine in the retrotrapezoid nucleus in awake rats. Neuropharmacology, 2018, 138, 47-56.	4.1	14
16	Bicarbonate directly modulates activity of chemosensitive neurons in the retrotrapezoid nucleus. Journal of Physiology, 2018, 596, 4033-4042.	2.9	13
17	MeCP2 Deficiency Leads to Loss of Glial Kir4.1. ENeuro, 2018, 5, ENEURO.0194-17.2018.	1.9	26
18	Adenosine Signaling through A1 Receptors Inhibits Chemosensitive Neurons in the Retrotrapezoid Nucleus. ENeuro, 2018, 5, ENEURO.0404-18.2018.	1.9	11

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19	Astrocyteâ€specific deletion of Kir4.1 increases normoxic ventilation after acclimatization to chronic sustained hypoxia.. FASEB Journal, 2018, 32, 625.14.	0.5	0
20	Epilepsy-Associated KCNQ2 Channels Regulate Multiple Intrinsic Properties of Layer 2/3 Pyramidal Neurons. Journal of Neuroscience, 2017, 37, 576-586.	3.6	51
21	Fluorocitrate-mediated depolarization of astrocytes in the retrotrapezoid nucleus stimulates breathing. Journal of Neurophysiology, 2017, 118, 1690-1697.	1.8	26
22	Purinergic regulation of vascular tone in the retrotrapezoid nucleus is specialized to support the drive to breathe. ELife, 2017, 6, .	6.0	42
23	Epilepsy-Associated KCNQ2 Channels Regulate Multiple Intrinsic Properties of Layer 2/3 Pyramidal Neurons. Journal of Neuroscience, 2017, 37, 576-586.	3.6	3
24	Purinergic receptor blockade in the retrotrapezoid nucleus attenuates the respiratory chemoreflexes in awake rats. Acta Physiologica, 2016, 217, 80-93.	3.8	23
25	Facilitation of breathing by leptin effects in the central nervous system. Journal of Physiology, 2016, 594, 1617-1625.	2.9	24
26	In vitro characterization of noradrenergic modulation of chemosensitive neurons in the retrotrapezoid nucleus. Journal of Neurophysiology, 2016, 116, 1024-1035.	1.8	21
27	Cholinergic control of ventral surface chemoreceptors involves Gq/inositol 1,4,5â€trisphosphateâ€mediated inhibition of KCNQ channels. Journal of Physiology, 2016, 594, 407-419.	2.9	20
28	MeCP2 deficiency results in robust Rett-like behavioural and motor deficits in male and female rats. Human Molecular Genetics, 2016, 25, 3303-3320.	2.9	30
29	Î±₁- and Î±₂-adrenergic receptors in the retrotrapezoid nucleus differentially regulate breathing in anesthetized adult rats. Journal of Neurophysiology, 2016, 116, 1036-1048.	1.8	26
30	HCN channels contribute to serotonergic modulation of ventral surface chemosensitive neurons and respiratory activity. Journal of Neurophysiology, 2015, 113, 1195-1205.	1.8	43
31	New advances in the neural control of breathing. Journal of Physiology, 2015, 593, 1065-1066.	2.9	1
32	Independent purinergic mechanisms of central and peripheral chemoreception in the rostral ventrolateral medulla. Journal of Physiology, 2015, 593, 1067-1074.	2.9	12
33	Molecular underpinnings of ventral surface chemoreceptor function: focus on KCNQ channels. Journal of Physiology, 2015, 593, 1075-1081.	2.9	9
34	Astrocyte Kir4.1 Channels Contribute to Central Respiratory Drive. FASEB Journal, 2015, 29, 860.12.	0.5	0
35	Connexin26 hemichannels with a mutation that causes KID syndrome in humans lack sensitivity to CO2. ELife, 2014, 3, e04249.	6.0	30
36	Leptin into the ventrolateral medulla facilitates chemorespiratory response in leptinâ€deficient (ob/ob) mice. Acta Physiologica, 2014, 211, 240-248.	3.8	48

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37	Purinergic signalling contributes to chemoreception in the retrotrapezoid nucleus but not the nucleus of the solitary tract or medullary raphe. Journal of Physiology, 2014, 592, 1309-1323.	2.9	41
38	P2Y1 Receptors Expressed by C1 Neurons Determine Peripheral Chemoreceptor Modulation of Breathing, Sympathetic Activity, and Blood Pressure. Hypertension, 2013, 62, 263-273.	2.7	28
39	External pH modulates EAG superfamily K+ channels through EAG-specific acidic residues in the voltage sensor. Journal of General Physiology, 2013, 141, 721-735.	1.9	27
40	Effects of leptin in the retrotrapezoid nucleus (RTN) on CO2â€sensitivity and respiration.. FASEB Journal, 2013, 27, 1137.12.	0.5	2
41	P2Y1â€receptors are expressed by C1 cells and regulate peripheral chemoreceptor modulation of breathing and blood pressure. FASEB Journal, 2013, 27, 1118.4.	0.5	0
42	Purinergic signaling in the retrotrapezoid nucleus (RTN) contributes to central and peripheral chemoreflexes by divergent mechansims. FASEB Journal, 2013, 27, 1137.15.	0.5	0
43	HCN channels contribute to serotonergic modulation of chemoreceptors in the retrotrapezoid nucleus. FASEB Journal, 2013, 27, 1214.11.	0.5	0
44	KCNQ channels regulate activity of chemosensitive neurons in the retrotrapezoid nucleus. FASEB Journal, 2013, 27, 1214.10.	0.5	0
45	Role of purinergic neurotransmission in different brainstem CO2â€chemoreceptor regions. FASEB Journal, 2013, 27, 1137.13.	0.5	0
46	Chemosensitive neurons in the retrotrapezoid nucleus (RTN) express SK channels with low Ca2+ affinity. FASEB Journal, 2013, 27, 1137.11.	0.5	0
47	Chemosensory control by purinergic signaling within the retrotrapezoid nucleus (RTN) in conscious rats. FASEB Journal, 2013, 27, 1137.14.	0.5	0
48	Nitric oxide activates hypoglossal motoneurons by cGMP-dependent inhibition of TASK channels and cGMP-independent activation of HCN channels. Journal of Neurophysiology, 2012, 107, 1489-1499.	1.8	22
49	KCNQ Channels Determine Serotonergic Modulation of Ventral Surface Chemoreceptors and Respiratory Drive. Journal of Neuroscience, 2012, 32, 16943-16952.	3.6	36
50	Regulation of ventral surface CO₂/H⁺â€sensitive neurons by purinergic signalling. Journal of Physiology, 2012, 590, 2137-2150.	2.9	82
51	Astrocyte chemoreceptors: mechanisms of H⁺sensing by astrocytes in the retrotrapezoid nucleus and their possible contribution to respiratory drive. Experimental Physiology, 2011, 96, 400-406.	2.0	45
52	Glucose increases activity and Ca2+ in insulin-producing cells of adult Drosophila. NeuroReport, 2010, 21, 1116-1120.	1.2	55
53	Retrotrapezoid nucleus and parafacial respiratory group. Respiratory Physiology and Neurobiology, 2010, 173, 244-255.	1.6	85
54	Anesthetic Activation of Central Respiratory Chemoreceptor Neurons Involves Inhibition of a THIK-1-Like Background K+ Current. Journal of Neuroscience, 2010, 30, 9324-9334.	3.6	67

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55	Astrocytes in the Retrotrapezoid Nucleus Sense H⁺ by Inhibition of a Kir4.1â€“Kir5.1-Like Current and May Contribute to Chemoreception by a Purinergic Mechanism. Journal of Neurophysiology, 2010, 104, 3042-3052.	1.8	119
56	Current ideas on central chemoreception by neurons and glial cells in the retrotrapezoid nucleus. Journal of Applied Physiology, 2010, 108, 1433-1439.	2.5	17
57	Increased uncoupling protein (UCP) activity in Drosophila insulin-producing neurons attenuates insulin signaling and extends lifespan. Aging, 2009, 1, 699-713.	3.1	57
58	Characterization of the chemosensitive response of individual solitary complex neurons from adult rats. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 296, R763-R773.	1.8	29
59	AMPâ€activated protein kinase inhibits TREK channels. Journal of Physiology, 2009, 587, 5819-5830.	2.9	47
60	The Retrotrapezoid Nucleus and Central Chemoreception. Tzu Chi Medical Journal, 2008, 20, 239-242.	1.1	1
61	The Retrotrapezoid Nucleus and Central Chemoreception. Advances in Experimental Medicine and Biology, 2008, 605, 327-332.	1.6	32
62	TASK Channels Determine pH Sensitivity in Select Respiratory Neurons But Do Not Contribute to Central Respiratory Chemosensitivity. Journal of Neuroscience, 2007, 27, 14049-14058.	3.6	167
63	Serotonergic Neurons Activate Chemosensitive Retrotrapezoid Nucleus Neurons by a pH-Independent Mechanism. Journal of Neuroscience, 2007, 27, 14128-14138.	3.6	127
64	Expression of Phox2b by Brainstem Neurons Involved in Chemosensory Integration in the Adult Rat. Journal of Neuroscience, 2006, 26, 10305-10314.	3.6	311
65	Purinergic P2 Receptors Modulate Excitability But Do Not Mediate pH Sensitivity of RTN Respiratory Chemoreceptors. Journal of Neuroscience, 2006, 26, 7230-7233.	3.6	71
66	Re: Retrotrapezoid nucleus: a litmus test for the identification of central chemoreceptors. Experimental Physiology, 2005, 90, 253-257.	2.0	102
67	Re: Homing in on the specific phenotype(s) of central respiratory chemoreceptors. Experimental Physiology, 2005, 90, 266-268.	2.0	0
68	Regulation of Ventral Surface Chemoreceptors by the Central Respiratory Pattern Generator. Journal of Neuroscience, 2005, 25, 8938-8947.	3.6	159
69	Re: Homing in on the specific phenotype(s) of central respiratory chemoreceptors. Experimental Physiology, 2005, 90, 266-268.	2.0	10
70	Oxidative stress decreases pHi and Na+/H+ exchange and increases excitability of solitary complex neurons from rat brain slices. American Journal of Physiology - Cell Physiology, 2004, 286, C940-C951.	4.6	64
71	Respiratory control by ventral surface chemoreceptor neurons in rats. Nature Neuroscience, 2004, 7, 1360-1369.	14.8	486
72	Hyperoxia, reactive oxygen species, and hyperventilation: oxygen sensitivity of brain stem neurons. Journal of Applied Physiology, 2004, 96, 784-791.	2.5	137

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73	Neuronal sensitivity to hyperoxia, hypercapnia, and inert gases at hyperbaric pressures. Journal of Applied Physiology, 2003, 95, 883-909.	2.5	93
74	Pressure (â‰4 ATA) increases membrane conductance and firing rate in the rat solitary complex. Journal of Applied Physiology, 2003, 95, 922-930.	2.5	28
75	Hyperbaric oxygen and chemical oxidants stimulate CO₂/H⁺-sensitive neurons in rat brain stem slices. Journal of Applied Physiology, 2003, 95, 910-921.	2.5	65
76	Oxygen measurements in brain stem slices exposed to normobaric hyperoxia and hyperbaric oxygen. Journal of Applied Physiology, 2001, 90, 1887-1899.	2.5	140
77	Continuous intracellular recording from mammalian neurons exposed to hyperbaric helium, oxygen, or air. Journal of Applied Physiology, 2000, 89, 807-822.	2.5	101
78	Histamine/H1 receptor signaling in the parafacial region increases activity of chemosensitive neurons and respiratory activity in rats.. Journal of Neurophysiology, 0, , .	1.8	0