

Matthew R Hodges

List of Publications by Year in descending order

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82
papers

1,659
citations

430442

18
h-index

301761

39
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all docs

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docs citations

82
times ranked

1483
citing authors

#	ARTICLE	IF	CITATIONS
1	Methods for the Comprehensive in vivo Analysis of Energy Flux, Fluid Homeostasis, Blood Pressure, and Ventilatory Function in Rodents. <i>Frontiers in Physiology</i> , 2022, 13, 855054.	1.3	15
2	Acute and Chronic Effects of Seizures on Cardiorespiratory Control in the SS ^{Kcnj16} Rat. <i>FASEB Journal</i> , 2022, 36, .	0.2	0
3	Mild to Moderate Chronic Hypercapnia Impairs Adaptation of Acute CO ₂ /H ⁺ Chemosensitivity but Not Steady-State Ventilation. <i>FASEB Journal</i> , 2022, 36, .	0.2	0
4	Single Nuclear RNA Sequencing Reveals Activation of Neuroinflammation Within the Pre-Bötzing Complex Following Repeated Seizures. <i>FASEB Journal</i> , 2022, 36, .	0.2	1
5	Kir5.1 channels: potential role in epilepsy and seizure disorders. <i>American Journal of Physiology - Cell Physiology</i> , 2022, 323, C706-C717.	2.1	10
6	Kcnj16 knockout produces audiogenic seizures in the Dahl salt-sensitive rat. <i>JCI Insight</i> , 2021, 6, .	2.3	14
7	Single Nuclear RNA Sequencing Reveals Activation of Neuroinflammation Within the Pre-Bötzing Complex Following Repeated Seizures. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
8	Dose-dependent multiple physiologic effects of systemic fentanyl in awake adult goats. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
9	Effects of Serotonin Terminal Lesions in the Retrotrapezoid Nucleus on Ventilatory Chemoreflexes. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
10	The mechanisms of neuroplasticity during acclimatization to and deacclimatization from chronic hypercapnia are fundamentally different. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
11	Repeated Seizure Exposure in the SS ^{Kcnj16} Rat Causes Progressive Respiratory Suppression and Associated Brainstem Pathology. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
12	Mortality and ventilatory effects of central serotonin deficiency during postnatal development depend on age but not sex. <i>Physiological Reports</i> , 2021, 9, e14946.	0.7	2
13	Impact of inflammation on developing respiratory control networks: rhythm generation, chemoreception and plasticity. <i>Respiratory Physiology and Neurobiology</i> , 2020, 274, 103357.	0.7	8
14	Expression, localization, and functional properties of inwardly rectifying K ⁺ channels in the kidney. <i>American Journal of Physiology - Renal Physiology</i> , 2020, 318, F332-F337.	1.3	21
15	Single-Cell Transcriptomic Analysis. , 2020, 10, 767-783.		8
16	Evidence of Progressive Brainstem Pathology after Repeated Seizure Exposure in a Novel Rat Model of SUDEP. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	1
17	Physiological Adaptations During the Acclimatization To and Deacclimatization From Chronic Hypercapnia. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	0
18	The serotonergic system and the control of breathing during development. <i>Respiratory Physiology and Neurobiology</i> , 2019, 270, 103255.	0.7	21

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19	Brainstem serotonergic, catecholaminergic, and inflammatory adaptations during chronic hypercapnia in goats. <i>FASEB Journal</i> , 2019, 33, 14491-14505.	0.2	8
20	Midbrain and cerebral inflammatory and glutamatergic adaptations during chronic hypercapnia in goats. <i>Brain Research</i> , 2019, 1724, 146437.	1.1	2
21	Glutamate receptor plasticity in brainstem respiratory nuclei following chronic hypercapnia in goats. <i>Physiological Reports</i> , 2019, 7, e14035.	0.7	11
22	Genetic mutation of <i>Kcnj16</i> identifies Kir5.1-containing channels as key regulators of acute and chronic pH homeostasis. <i>FASEB Journal</i> , 2019, 33, 5067-5075.	0.2	18
23	Acute and chronic changes in the control of breathing in a rat model of bronchopulmonary dysplasia. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2019, 316, L506-L518.	1.3	16
24	Relationship between the renin-angiotensin-aldosterone system and renal Kir5.1 channels. <i>Clinical Science</i> , 2019, 133, 2449-2461.	1.8	11
25	Pairing Electrophysiology and Single Cell RNA Sequencing to Identify Mechanisms of Cellular pH/CO ₂ Sensitivity in Respiratory Chemoreceptor Neurons. <i>FASEB Journal</i> , 2019, 33, 595.8.	0.2	0
26	The Role of Raphe-derived Neuromodulation of the Retrotrapezoid Nucleus (RTN) in Ventilatory Chemoreflexes. <i>FASEB Journal</i> , 2019, 33, 733.3.	0.2	0
27	Glutamate Receptor Plasticity in Brainstem Respiratory Nuclei Following Chronic Hypercapnia in Goats. <i>FASEB Journal</i> , 2019, 33, 731.7.	0.2	0
28	Kir5.1-Mediated Changes in Renin-Angiotensin-Aldosterone System Balance in Salt Sensitive Hypertension. <i>FASEB Journal</i> , 2019, 33, 862.12.	0.2	0
29	Effects of neonatal hyperoxia on the critical period of postnatal development of neurochemical expressions in brain stem respiratory-related nuclei in the rat. <i>Physiological Reports</i> , 2018, 6, e13627.	0.7	12
30	The central role of serotonin. <i>ELife</i> , 2018, 7, .	2.8	1
31	Ventilatory and integrated physiological responses to chronic hypercapnia in goats. <i>Journal of Physiology</i> , 2018, 596, 5343-5363.	1.3	21
32	Knockout of <i>Kcnj16</i> (Kir5.1) in Dahl Salt-Sensitive Rats Produces Seizure Phenotype. <i>FASEB Journal</i> , 2018, 32, 750.3.	0.2	0
33	Acute and Chronic Respiratory Effects from Repeated Audiogenic Seizures in SS <i>Kcnj16</i> ^{-/-} Rats. <i>FASEB Journal</i> , 2018, 32, 894.14.	0.2	0
34	Ventilatory, Arterial Blood Gas, pH, and Electrolyte Adaptations to Chronic Hypercapnia in Healthy Goats. <i>FASEB Journal</i> , 2018, 32, 894.12.	0.2	0
35	Ventilatory CO ₂ /H ⁺ + Chemoreflex During Chronic Hypercapnia in Healthy Goats. <i>FASEB Journal</i> , 2018, 32, 894.11.	0.2	0
36	Effects on Breathing and the CO ₂ Chemoreflex of 5-HT and NK-1 Receptor Antagonists in the Retrotrapezoid Nucleus (RTN). <i>FASEB Journal</i> , 2018, 32, 894.13.	0.2	0

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37	Hyperoxia-induced Bronchopulmonary Dysplasia in Neonatal Rats Acutely and Chronically Alters the Control of Breathing. <i>FASEB Journal</i> , 2018, 32, 742.10.	0.2	0
38	Kcnj10 (Kir 4.1) Knockout in Dahl SS Rats Determines the Expression of Kcnj10 and Kcnj16 Proteins in Brain and Kidney. <i>FASEB Journal</i> , 2018, 32, 620.3.	0.2	0
39	Raphe gene expression changes implicate immune-related functions in ventilatory plasticity following carotid body denervation in rats. <i>Experimental Neurology</i> , 2017, 287, 102-112.	2.0	5
40	Effects on breathing of agonists to μ -opioid or GABA A receptors dialyzed into the ventral respiratory column of awake and sleeping goats. <i>Respiratory Physiology and Neurobiology</i> , 2017, 239, 10-25.	0.7	12
41	Going to WAR: using a rat model of audiogenic seizure to uncover potential links to ventilatory dysfunction in epilepsy. <i>Journal of Physiology</i> , 2017, 595, 617-618.	1.3	0
42	State-dependent and -independent effects of dialyzing excitatory neuromodulator receptor antagonists into the ventral respiratory column. <i>Journal of Applied Physiology</i> , 2017, 122, 327-338.	1.2	6
43	Ventilation and neurochemical changes during μ -opioid receptor activation or blockade of excitatory receptors in the hypoglossal motor nucleus of goats. <i>Journal of Applied Physiology</i> , 2017, 123, 1532-1544.	1.2	4
44	Active sleep unmasks apnea and delayed arousal in infant rat pups lacking central serotonin. <i>Journal of Applied Physiology</i> , 2017, 123, 825-834.	1.2	24
45	Essential role of Kir5.1 channels in renal salt handling and blood pressure control. <i>JCI Insight</i> , 2017, 2, .	2.3	78
46	Identifying Candidate Genes that Underlie Cellular pH Sensitivity in Serotonin Neurons Using Transcriptomics: A Potential Role for Kir5.1 Channels. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 34.	1.8	12
47	Chronic central serotonin depletion attenuates ventilation and body temperature in young but not adult Tph2 knockout rats. <i>Journal of Applied Physiology</i> , 2016, 120, 1070-1081.	1.2	33
48	Combined unilateral blockade of cholinergic, peptidergic, and serotonergic receptors in the ventral respiratory column does not affect breathing in awake or sleeping goats. <i>Journal of Applied Physiology</i> , 2015, 119, 308-320.	1.2	6
49	RNASeq-derived transcriptome comparisons reveal neuromodulatory deficiency in the CO ₂ insensitive brown Norway rat. <i>Journal of Physiology</i> , 2015, 593, 415-430.	1.3	13
50	Blockade of neurokinin-1 receptors in the ventral respiratory column does not affect breathing but alters neurochemical release. <i>Journal of Applied Physiology</i> , 2015, 118, 732-741.	1.2	5
51	Evidence for respiratory neuromodulator interdependence after cholinergic disruption in the ventral respiratory column. <i>Respiratory Physiology and Neurobiology</i> , 2015, 205, 7-15.	0.7	8
52	Improved rat genome gene prediction by integration of ESTs with RNA-Seq information. <i>Bioinformatics</i> , 2015, 31, 25-32.	1.8	6
53	Ventilatory and Neurochemical Effects of Microdialysis of a μ -opioid Receptor Agonist (DAMGO) into the Region of the Ventral Respiratory Column in Awake Goats. <i>FASEB Journal</i> , 2015, 29, LB745.	0.2	0
54	Concurrent Blockade of Muscarinic, Neurokinin-1, and Serotonergic Receptors in the Ventral Respiratory Column of Intact Goats Does Not Affect Breathing. <i>FASEB Journal</i> , 2015, 29, 1032.12.	0.2	0

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55	Changes in glutamate receptor subunits within the medulla in goats after section of the carotid sinus nerves. <i>Journal of Applied Physiology</i> , 2014, 116, 1531-1542.	1.2	9
56	Contributions of the Pre-Bötzing Complex and the Kölliker-Fuse Nuclei to Respiratory Rhythm and Pattern Generation in Awake and Sleeping Goats. <i>Progress in Brain Research</i> , 2014, 209, 73-89.	0.9	16
57	RNA sequencing to profile transcriptional changes within the medullary raphe: potential mechanisms of central neuroplasticity driving the recovery of eupneic ventilation after bilateral carotid body denervation (713.7). <i>FASEB Journal</i> , 2014, 28, 713.7.	0.2	0
58	Fluoxetine augments ventilatory CO2 sensitivity in Brown Norway but not Sprague Dawley rats. <i>Respiratory Physiology and Neurobiology</i> , 2013, 186, 221-228.	0.7	19
59	Characteristics of microRNAs enriched in specific cell types and primary tissue types in solid organs. <i>Physiological Genomics</i> , 2013, 45, 1144-1156.	1.0	29
60	Atropine microdialysis within or near the pre-Bötzing Complex increases breathing frequency more during wakefulness than during NREM sleep. <i>Journal of Applied Physiology</i> , 2013, 114, 694-704.	1.2	14
61	Transposon-mediated transgenesis, transgenic rescue, and tissue-specific gene expression in rodents and rabbits. <i>FASEB Journal</i> , 2013, 27, 930-941.	0.2	86
62	Changes in neurochemicals within the ventrolateral medullary respiratory column in awake goats after carotid body denervation. <i>Journal of Applied Physiology</i> , 2013, 115, 1088-1098.	1.2	15
63	Microdialysis of a NK1R antagonist into the ventral medulla does not affect breathing frequency. <i>FASEB Journal</i> , 2013, 27, 1214.6.	0.2	0
64	Immunohistochemical Changes in 5 Respiratory Nuclei after Bilateral Carotid Body Denervation (CBD) in Sprague Dawley Rats. <i>FASEB Journal</i> , 2013, 27, 1214.7.	0.2	0
65	Attenuation of the hypercapnic ventilatory response in the Brown Norway (BN) rat occurs prior to postnatal (P) day 26 and does not appear to be influenced by gender. <i>FASEB Journal</i> , 2013, 27, 720.3.	0.2	0
66	Acute and chronic effects of carotid body denervation on ventilation and chemoreflexes in three rat strains. <i>Journal of Physiology</i> , 2012, 590, 3335-3347.	1.3	45
67	Respiratory neuroplasticity following carotid body denervation: Central and peripheral adaptations. <i>Neural Regeneration Research</i> , 2012, 7, 1073-9.	1.6	13
68	Carotid body denervation does not affect CO2 sensitivity in multiple rat strains. <i>FASEB Journal</i> , 2012, 26, 894.12.	0.2	0
69	Effects on ventilation (VE) and neuromodulator concentration of cholinergic receptor blockade at the pre-Bötzing Complex (preBötC). <i>FASEB Journal</i> , 2012, 26, 1088.5.	0.2	0
70	Fluoxetine Augments the Hypercapnic Ventilatory Response in CO2-insensitive Brown Norway (BN) Rats. <i>FASEB Journal</i> , 2012, 26, .	0.2	0
71	Altered ventilatory and thermoregulatory control in male and female adult Pet-1 null mice. <i>Respiratory Physiology and Neurobiology</i> , 2011, 177, 133-140.	0.7	39
72	State-Dependence of Ventilation (VE) and Neuromodulator Concentration at the Pre-Bötzing Complex (preBötC) in Response to Cholinergic Receptor Blockade. <i>FASEB Journal</i> , 2011, 25, 1074.1.	0.2	0

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73	The role of medullary serotonin (5-HT) neurons in respiratory control: contributions to eupneic ventilation, CO ₂ chemoreception, and thermoregulation. <i>Journal of Applied Physiology</i> , 2010, 108, 1425-1432.	1.2	117
74	Medullary serotonin neurons and their roles in central respiratory chemoreception. <i>Respiratory Physiology and Neurobiology</i> , 2010, 173, 256-263.	0.7	76
75	Transgenic Mice Lacking Serotonin Neurons Have Severe Apnea and High Mortality during Development. <i>Journal of Neuroscience</i> , 2009, 29, 10341-10349.	1.7	142
76	Medullary serotonin neurons and central CO ₂ chemoreception. <i>Respiratory Physiology and Neurobiology</i> , 2009, 168, 49-58.	0.7	126
77	Contributions of 5-HT neurons to respiratory control: Neuromodulatory and trophic effects. <i>Respiratory Physiology and Neurobiology</i> , 2008, 164, 222-232.	0.7	115
78	Interaction between defects in ventilatory and thermoregulatory control in mice lacking 5-HT neurons. <i>Respiratory Physiology and Neurobiology</i> , 2008, 164, 350-357.	0.7	43
79	Defects in Breathing and Thermoregulation in Mice with Near-Complete Absence of Central Serotonin Neurons. <i>Journal of Neuroscience</i> , 2008, 28, 2495-2505.	1.7	283
80	Carotid body dysfunction and altered oxygen homeostasis in models of Parkinson's disease. <i>FASEB Journal</i> , 2008, 22, 1231.5.	0.2	0
81	Ventilatory phenotypes among four strains of adult rats. <i>Journal of Applied Physiology</i> , 2002, 93, 974-983.	1.2	56
82	Patch-to-Seq and Transcriptomic Analyses Yield Molecular Markers of Functionally Distinct Brainstem Serotonin Neurons. <i>Frontiers in Synaptic Neuroscience</i> , 0, 14, .	1.3	3