

Matthew R Hodges

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

1,659
citations

430874

18
h-index

302126

39
g-index

82
all docs

82
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. | 2.8 | 15 |
| 2 | Acute and Chronic Effects of Seizures on Cardiorespiratory Control in the SS ^{Kcnj16} Rat. <i>FASEB Journal</i> , 2022, 36, . | 0.5 | 0 |
| 3 | Mild to Moderate Chronic Hypercapnia Impairs Adaptation of Acute CO ₂ /H ₂ O + Chemoreactivity but Not Steady-State Ventilation. <i>FASEB Journal</i> , 2022, 36, . | 0.5 | 0 |
| 4 | Single Nuclear RNA Sequencing Reveals Activation of Neuroinflammation Within the Pre-Bötzing Complex Following Repeated Seizures. <i>FASEB Journal</i> , 2022, 36, . | 0.5 | 1 |
| 5 | Kir5.1 channels: potential role in epilepsy and seizure disorders. <i>American Journal of Physiology - Cell Physiology</i> , 2022, 323, C706-C717. | 4.6 | 10 |
| 6 | Kcnj16 knockout produces audiogenic seizures in the Dahl salt-sensitive rat. <i>JCI Insight</i> , 2021, 6, . | 5.0 | 14 |
| 7 | Single Nuclear RNA Sequencing Reveals Activation of Neuroinflammation Within the Pre-Bötzing Complex Following Repeated Seizures. <i>FASEB Journal</i> , 2021, 35, . | 0.5 | 0 |
| 8 | Dose-dependent multiple physiologic effects of systemic fentanyl in awake adult goats. <i>FASEB Journal</i> , 2021, 35, . | 0.5 | 0 |
| 9 | Effects of Serotonin Terminal Lesions in the Retrotrapezoid Nucleus on Ventilatory Chemoreflexes. <i>FASEB Journal</i> , 2021, 35, . | 0.5 | 0 |
| 10 | The mechanisms of neuroplasticity during acclimatization to and deacclimatization from chronic hypercapnia are fundamentally different. <i>FASEB Journal</i> , 2021, 35, . | 0.5 | 0 |
| 11 | Repeated Seizure Exposure in the SS ^{Kcnj16} Rat Causes Progressive Respiratory Suppression and Associated Brainstem Pathology. <i>FASEB Journal</i> , 2021, 35, . | 0.5 | 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. | 1.7 | 2 |
| 13 | Impact of inflammation on developing respiratory control networks: rhythm generation, chemoreception and plasticity. <i>Respiratory Physiology and Neurobiology</i> , 2020, 274, 103357. | 1.6 | 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. | 2.7 | 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. | 0.5 | 1 |
| 17 | Physiological Adaptations During the Acclimatization To and Deacclimatization From Chronic Hypercapnia. <i>FASEB Journal</i> , 2020, 34, 1-1. | 0.5 | 0 |
| 18 | The serotonergic system and the control of breathing during development. <i>Respiratory Physiology and Neurobiology</i> , 2019, 270, 103255. | 1.6 | 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. | 0.5 | 8 |
| 20 | Midbrain and cerebral inflammatory and glutamatergic adaptations during chronic hypercapnia in goats. <i>Brain Research</i> , 2019, 1724, 146437. | 2.2 | 2 |
| 21 | Glutamate receptor plasticity in brainstem respiratory nuclei following chronic hypercapnia in goats. <i>Physiological Reports</i> , 2019, 7, e14035. | 1.7 | 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. | 0.5 | 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. | 2.9 | 16 |
| 24 | Relationship between the renin-angiotensin-aldosterone system and renal Kir5.1 channels. <i>Clinical Science</i> , 2019, 133, 2449-2461. | 4.3 | 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. | 0.5 | 0 |
| 26 | The Role of Raphe-derived Neuromodulation of the Retrotrapezoid Nucleus (RTN) in Ventilatory Chemoreflexes. <i>FASEB Journal</i> , 2019, 33, 733.3. | 0.5 | 0 |
| 27 | Glutamate Receptor Plasticity in Brainstem Respiratory Nuclei Following Chronic Hypercapnia in Goats. <i>FASEB Journal</i> , 2019, 33, 731.7. | 0.5 | 0 |
| 28 | Kir5.1-Mediated Changes in Renin-Angiotensin-Aldosterone System Balance in Salt Sensitive Hypertension. <i>FASEB Journal</i> , 2019, 33, 862.12. | 0.5 | 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. | 1.7 | 12 |
| 30 | The central role of serotonin. <i>ELife</i> , 2018, 7, . | 6.0 | 1 |
| 31 | Ventilatory and integrated physiological responses to chronic hypercapnia in goats. <i>Journal of Physiology</i> , 2018, 596, 5343-5363. | 2.9 | 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. | 0.5 | 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. | 0.5 | 0 |
| 34 | Ventilatory, Arterial Blood Gas, pH, and Electrolyte Adaptations to Chronic Hypercapnia in Healthy Goats. <i>FASEB Journal</i> , 2018, 32, 894.12. | 0.5 | 0 |
| 35 | Ventilatory CO ₂ /H ⁺ + Chemoreflex During Chronic Hypercapnia in Healthy Goats. <i>FASEB Journal</i> , 2018, 32, 894.11. | 0.5 | 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. | 0.5 | 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. | 0.5 | 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. | 0.5 | 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. | 4.1 | 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. | 1.6 | 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. | 2.9 | 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. | 2.5 | 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. | 2.5 | 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. | 2.5 | 24 |
| 45 | Essential role of Kir5.1 channels in renal salt handling and blood pressure control. <i>JCI Insight</i> , 2017, 2, . | 5.0 | 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. | 3.7 | 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. | 2.5 | 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. | 2.5 | 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. | 2.9 | 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. | 2.5 | 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. | 1.6 | 8 |
| 52 | Improved rat genome gene prediction by integration of ESTs with RNA-Seq information. <i>Bioinformatics</i> , 2015, 31, 25-32. | 4.1 | 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. | 0.5 | 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. | 0.5 | 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. | 2.5 | 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. | 1.4 | 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. | 0.5 | 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. | 1.6 | 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. | 2.3 | 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. | 2.5 | 14 |
| 61 | Transposon-mediated transgenesis, transgenic rescue, and tissue-specific gene expression in rodents and rabbits. <i>FASEB Journal</i> , 2013, 27, 930-941. | 0.5 | 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. | 2.5 | 15 |
| 63 | Microdialysis of a NK1R antagonist into the ventral medulla does not affect breathing frequency. <i>FASEB Journal</i> , 2013, 27, 1214.6. | 0.5 | 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. | 0.5 | 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. | 0.5 | 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. | 2.9 | 45 |
| 67 | Respiratory neuroplasticity following carotid body denervation: Central and peripheral adaptations. <i>Neural Regeneration Research</i> , 2012, 7, 1073-9. | 3.0 | 13 |
| 68 | Carotid body denervation does not affect CO2 sensitivity in multiple rat strains. <i>FASEB Journal</i> , 2012, 26, 894.12. | 0.5 | 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. | 0.5 | 0 |
| 70 | Fluoxetine Augments the Hypercapnic Ventilatory Response in CO2-insensitive Brown Norway (BN) Rats. <i>FASEB Journal</i> , 2012, 26, . | 0.5 | 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. | 1.6 | 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. | 0.5 | 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. | 2.5 | 117 |
| 74 | Medullary serotonin neurons and their roles in central respiratory chemoreception. <i>Respiratory Physiology and Neurobiology</i> , 2010, 173, 256-263. | 1.6 | 76 |
| 75 | Transgenic Mice Lacking Serotonin Neurons Have Severe Apnea and High Mortality during Development. <i>Journal of Neuroscience</i> , 2009, 29, 10341-10349. | 3.6 | 142 |
| 76 | Medullary serotonin neurons and central CO ₂ chemoreception. <i>Respiratory Physiology and Neurobiology</i> , 2009, 168, 49-58. | 1.6 | 126 |
| 77 | Contributions of 5-HT neurons to respiratory control: Neuromodulatory and trophic effects. <i>Respiratory Physiology and Neurobiology</i> , 2008, 164, 222-232. | 1.6 | 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. | 1.6 | 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. | 3.6 | 283 |
| 80 | Carotid body dysfunction and altered oxygen homeostasis in models of Parkinson's disease. <i>FASEB Journal</i> , 2008, 22, 1231.5. | 0.5 | 0 |
| 81 | Ventilatory phenotypes among four strains of adult rats. <i>Journal of Applied Physiology</i> , 2002, 93, 974-983. | 2.5 | 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, . | 2.5 | 3 |