

Gregory D Funk

List of Publications by Year in descending order

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89
papers

4,369
citations

109321

35
h-index

114465

63
g-index

96
all docs

96
docs citations

96
times ranked

2935
citing authors

#	ARTICLE	IF	CITATIONS
1	Prenatal fluoxetine has long-lasting, differential effects on respiratory control in male and female rats. <i>Journal of Applied Physiology</i> , 2022, 133, 371-389.	2.5	3
2	Mapping of the excitatory, inhibitory, and modulatory afferent projections to the anatomically defined active expiratory oscillator in adult male rats. <i>Journal of Comparative Neurology</i> , 2021, 529, 853-884.	1.6	19
3	A brainstem peptide system activated at birth protects postnatal breathing. <i>Nature</i> , 2021, 589, 426-430.	27.8	31
4	KCNQ Current Contributes to Inspiratory Burst Termination in the Pre-Bötzing Complex of Neonatal Rats in vitro. <i>Frontiers in Physiology</i> , 2021, 12, 626470.	2.8	8
5	Release your inhibitions: The role of post-inhibitory rebound and synaptic inhibition in the generation of expiratory activity. <i>Journal of Physiology</i> , 2021, 599, 5331-5332.	2.9	1
6	Commentary: Acute perturbation of Pet1-neuron activity in neonatal mice impairs cardiorespiratory homeostatic recovery. <i>Frontiers in Physiology</i> , 2019, 10, 232.	2.8	0
7	Respiratory motoneuron properties during the transition from gill to lung breathing in the American bullfrog. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2019, 316, R281-R297.	1.8	4
8	Postnatal development of persistent inward currents in rat XII motoneurons and their modulation by serotonin, muscarine and noradrenaline. <i>Journal of Physiology</i> , 2019, 597, 3183-3201.	2.9	12
9	The Purinome and the pre-Bötzing Complex – A Menagerie of Unexplored Mechanisms That May Modulate/Shape the Hypoxic Ventilatory Response. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 365.	3.7	8
10	Developmental Changes in the Role of Adenosine Clearance Mechanisms in Modulating the Activity of the pre-Bötzing Complex Inspiratory Network Under Basal and Hypoxic Conditions. <i>FASEB Journal</i> , 2019, 33, 546.1.	0.5	0
11	Release of ATP by pre-Bötzing complex astrocytes contributes to the hypoxic ventilatory response via a Ca ²⁺ -dependent P2Y ₁ receptor mechanism. <i>Journal of Physiology</i> , 2018, 596, 3245-3269.	2.9	82
12	Rebuttal from Gregory D. Funk and Alexander V. Gourine. <i>Journal of Physiology</i> , 2018, 596, 2943-2944.	2.9	4
13	CrossTalk proposal: a central hypoxia sensor contributes to the excitatory hypoxic ventilatory response. <i>Journal of Physiology</i> , 2018, 596, 2935-2938.	2.9	16
14	Breathing matters. <i>Nature Reviews Neuroscience</i> , 2018, 19, 351-367.	10.2	446
15	On the existence of a central respiratory oxygen sensor. <i>Journal of Applied Physiology</i> , 2017, 123, 1344-1349.	2.5	78
16	Phylogenetically persistent purinergic modulation of central pattern generators for breathing in lamprey and mammals. <i>Journal of Physiology</i> , 2017, 595, 7011-7012.	2.9	2
17	Excitatory Modulation of the pre-Bötzing Complex Inspiratory Rhythm Generating Network by Endogenous Hydrogen Sulfide. <i>Frontiers in Physiology</i> , 2017, 8, 452.	2.8	12
18	The role of P2Y1 receptor signaling in central respiratory control. <i>Respiratory Physiology and Neurobiology</i> , 2016, 226, 3-10.	1.6	11

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19	Dbx1 precursor cells are a source of inspiratory XII premotoneurons. <i>ELife</i> , 2015, 4, .	6.0	50
20	Neuroglia and their roles in central respiratory control; an overview. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2015, 186, 83-95.	1.8	34
21	Functional Oxygen Sensitivity of Astrocytes. <i>Journal of Neuroscience</i> , 2015, 35, 10460-10473.	3.6	219
22	Glial TLR4 signaling does not contribute to opioid-induced depression of respiration. <i>Journal of Applied Physiology</i> , 2014, 117, 857-868.	2.5	12
23	P2Y ₁ receptor-mediated potentiation of inspiratory motor output in neonatal rat <i>in vitro</i> . <i>Journal of Physiology</i> , 2014, 592, 3089-3111.	2.9	15
24	Laser ablation of Dbx1 neurons in the pre-Bötzing complex stops inspiratory rhythm and impairs output in neonatal mice. <i>ELife</i> , 2014, 3, e03427.	6.0	82
25	Breathing and brain state: Urethane anesthesia as a model for natural sleep. <i>Respiratory Physiology and Neurobiology</i> , 2013, 188, 324-332.	1.6	53
26	The rhythmic, transverse medullary slice preparation in respiratory neurobiology: Contributions and caveats. <i>Respiratory Physiology and Neurobiology</i> , 2013, 186, 236-253.	1.6	58
27	Neuromodulation: Purinergic Signaling in Respiratory Control. , 2013, 3, 331-363.		23
28	I think <i>Ca_v1</i> _{CAN} : modulation of TRPM4 channels may contribute not only to the emergence of rhythm, but robust output and metabolic sensitivity of the pre-Bötzing Complex inspiratory network. <i>Journal of Physiology</i> , 2013, 591, 1593-1594.	2.9	6
29	The Sagittally Sectioned Rat Hindbrain Preparation: Improved Access to the Brainstem Respiratory Network. <i>NeuroMethods</i> , 2013, , 257-268.	0.3	1
30	ATP acts via P2Y1 receptors in the pre-Bötzing Complex <i>in vivo</i> to attenuate the secondary hypoxic respiratory depression. <i>FASEB Journal</i> , 2013, 27, 1137.16.	0.5	0
31	State-Dependent Modulation of Breathing in Urethane-Anesthetized Rats. <i>Journal of Neuroscience</i> , 2012, 32, 11259-11270.	3.6	74
32	Muscarinic acetylcholine receptors enhance neonatal mouse hypoglossal motoneuron excitability <i>in vitro</i> . <i>Journal of Applied Physiology</i> , 2012, 113, 1024-1039.	2.5	32
33	Anxiety-Related Mechanisms of Respiratory Dysfunction in a Mouse Model of Rett Syndrome. <i>Journal of Neuroscience</i> , 2012, 32, 17230-17240.	3.6	40
34	Signaling pathways underlying the P2Y ₁ receptor-mediated excitation of the pre-Bötzing Complex (preBötC) inspiratory rhythm generating network <i>in vitro</i> . <i>FASEB Journal</i> , 2012, 26, 1088.7.	0.5	0
35	Microglia attenuate the opioid-induced depression of pre-Bötzing Complex (preBötC) inspiratory rhythm <i>in vitro</i> via a TLR4-independent pathway. <i>FASEB Journal</i> , 2012, 26, 1088.8.	0.5	1
36	Purinergic modulation of pre-Bötzing complex inspiratory rhythm in rodents: the interaction between ATP and adenosine. <i>Journal of Physiology</i> , 2011, 589, 4583-4600.	2.9	42

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37	Noradrenergic modulation of hypoglossal motoneuron excitability: developmental and putative state-dependent mechanisms. <i>Archives Italiennes De Biologie</i> , 2011, 149, 426-53.	0.4	28
38	Substance P Modulation of Hypoglossal Motoneuron Excitability During Development: Changing Balance Between Conductances. <i>Journal of Neurophysiology</i> , 2010, 104, 854-872.	1.8	10
39	The α -connexin TM between astrocytes, ATP and central respiratory chemoreception. <i>Journal of Physiology</i> , 2010, 588, 4335-4337.	2.9	21
40	Opiate-Induced Suppression of Rat Hypoglossal Motoneuron Activity and Its Reversal by Ampakine Therapy. <i>PLoS ONE</i> , 2010, 5, e8766.	2.5	54
41	Glia Contribute to the Purinergic Modulation of Inspiratory Rhythm-Generating Networks. <i>Journal of Neuroscience</i> , 2010, 30, 3947-3958.	3.6	92
42	Tripartite Purinergic Modulation of Central Respiratory Networks during Perinatal Development: The Influence of ATP, Ectonucleotidases, and ATP Metabolites. <i>Journal of Neuroscience</i> , 2009, 29, 14713-14725.	3.6	47
43	Losing sleep over the caffeination of prematurity. <i>Journal of Physiology</i> , 2009, 587, 5299-5300.	2.9	6
44	Ampakine CX717 Protects against Fentanyl-induced Respiratory Depression and Lethal Apnea in Rats. <i>Anesthesiology</i> , 2009, 110, 1364-1370.	2.5	102
45	Glial contribution to the modulation of preBotzinger Complex rhythm generating networks by ATP. <i>FASEB Journal</i> , 2009, 23, .	0.5	0
46	ATP sensitivity of preBotzinger complex neurones in neonatal rat <i>in vitro</i> : mechanism underlying a P2 receptor-mediated increase in inspiratory frequency. <i>Journal of Physiology</i> , 2008, 586, 1429-1446.	2.9	41
47	Distinct receptors underlie glutamatergic signalling in inspiratory rhythm-generating networks and motor output pathways in neonatal rat. <i>Journal of Physiology</i> , 2008, 586, 2357-2370.	2.9	11
48	ATP in central respiratory control: A three-part signaling system. <i>Respiratory Physiology and Neurobiology</i> , 2008, 164, 131-142.	1.6	30
49	Generation of Eupnea and Sighs by a Spatiochemically Organized Inspiratory Network. <i>Journal of Neuroscience</i> , 2008, 28, 2447-2458.	3.6	107
50	Are All Motoneurons Created Equal in the Eyes of REM Sleep and the Mechanisms of Muscle Atonia?. <i>Sleep</i> , 2008, 31, 1479-1482.	1.1	15
51	P2Y1 Receptor Modulation of the Pre-Botzinger Complex Inspiratory Rhythm Generating Network In Vitro. <i>Journal of Neuroscience</i> , 2007, 27, 993-1005.	3.6	72
52	Differential expression of group I metabotropic glutamate receptors in human motoneurons at low and high risk of degeneration in amyotrophic lateral sclerosis. <i>Neuroscience</i> , 2006, 143, 95-104.	2.3	9
53	The parafacial respiratory group (pFRG)/pre-Botzinger complex (preBotC) is the primary site of respiratory rhythm generation in the mammal. <i>Journal of Applied Physiology</i> , 2006, 100, 2103-2108.	2.5	14
54	Preparing for the first breath: prenatal maturation of respiratory neural control. <i>Journal of Physiology</i> , 2006, 570, 437-444.	2.9	85

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55	Ampakines Alleviate Respiratory Depression in Rats. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2006, 174, 1384-1391.	5.6	97
56	High Sensitivity to Neuromodulator-Activated Signaling Pathways at Physiological [K ⁺] of Confocally Imaged Respiratory Center Neurons in On-Line-Calibrated Newborn Rat Brainstem Slices. <i>Journal of Neuroscience</i> , 2006, 26, 11870-11880.	3.6	140
57	Developmental downregulation of P2X3 receptors in motoneurons of the compact formation of the nucleus ambiguus. <i>European Journal of Neuroscience</i> , 2005, 22, 809-824.	2.6	19
58	Noradrenergic modulation of XII motoneuron inspiratory activity does not involve $\hat{1}\pm 2$ -receptor inhibition of the I _h current or presynaptic glutamate release. <i>Journal of Applied Physiology</i> , 2005, 98, 1297-1308.	2.5	19
59	Fluorescent Tagging of Rhythmically Active Respiratory Neurons within the Pre-Botzinger Complex of Rat Medullary Slice Preparations. <i>Journal of Neuroscience</i> , 2005, 25, 2591-2596.	3.6	46
60	Perinatal development of respiratory motoneurons. <i>Respiratory Physiology and Neurobiology</i> , 2005, 149, 43-61.	1.6	35
61	Differential expression of voltage-activated calcium channels in III and XII motoneurons during development in the rat. <i>European Journal of Neuroscience</i> , 2004, 20, 903-913.	2.6	17
62	Effects of muscarinic acetylcholine receptor activation on membrane currents and intracellular messengers in medium spiny neurones of the rat striatum. <i>European Journal of Neuroscience</i> , 2004, 20, 1219-1230.	2.6	25
63	P2 receptors modulate respiratory rhythm but do not contribute to central CO ₂ sensitivity in vitro. <i>Respiratory Physiology and Neurobiology</i> , 2004, 142, 27-42.	1.6	31
64	Receptor subtype-specific modulation by dopamine of glutamatergic responses in striatal medium spiny neurons. <i>Brain Research</i> , 2003, 959, 251-262.	2.2	31
65	Oscillations in Endogenous Inputs to Neurons Affect Excitability and Signal Processing. <i>Journal of Neuroscience</i> , 2003, 23, 8152-8158.	3.6	47
66	Modulation of phrenic motoneuron excitability by ATP: consequences for respiratory-related output in vitro. <i>Journal of Applied Physiology</i> , 2002, 92, 1899-1910.	2.5	29
67	High frequency oscillations in respiratory networks: functionally significant or phenomenological?. <i>Respiratory Physiology and Neurobiology</i> , 2002, 131, 101-120.	1.6	41
68	Prenatal nicotine exposure increases apnoea and reduces nicotinic potentiation of hypoglossal inspiratory output in mice. <i>Journal of Physiology</i> , 2002, 538, 957-973.	2.9	77
69	GluR2 AMPA Receptor Subunit Expression in Motoneurons at Low and High Risk for Degeneration in Amyotrophic Lateral Sclerosis. <i>Experimental Neurology</i> , 2001, 169, 461-471.	4.1	45
70	Differential expression of Group I metabotropic glutamate receptors in motoneurons at low and high risk for degeneration in ALS. <i>NeuroReport</i> , 2001, 12, 1903-1908.	1.2	31
71	Modulation of hypoglossal motoneuron excitability by NK1 receptor activation in neonatal mice in vitro. <i>Journal of Physiology</i> , 2001, 534, 447-464.	2.9	37
72	Calcium binding proteins in motoneurons at low and high risk for degeneration in ALS. <i>NeuroReport</i> , 2000, 11, 3305-3308.	1.2	34

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73	Cholinergic Modulation Of Respiratory Brain-Stem Neurons And Its Function In Sleep-Wake State Determination. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2000, 27, 132-137.	1.9	41
74	A method for activating neurons using endogenous synaptic waveforms. <i>Journal of Neuroscience Methods</i> , 2000, 96, 77-85.	2.5	7
75	Synaptic Control of Motoneuronal Excitability. <i>Physiological Reviews</i> , 2000, 80, 767-852.	28.8	527
76	Development of the ventilatory response to hypoxia in Swiss CD-1 mice. <i>Journal of Applied Physiology</i> , 2000, 88, 1907-1914.	2.5	31
77	Developmental modulation of mouse hypoglossal nerve inspiratory output in vitro by noradrenergic receptor agonists. <i>Brain Research</i> , 1998, 805, 104-115.	2.2	34
78	Developmental modulation of glutamatergic inspiratory drive to hypoglossal motoneurons. <i>Respiration Physiology</i> , 1997, 110, 125-137.	2.7	30
79	Functional Respiratory Rhythm Generating Networks in Neonatal Mice Lacking NMDAR1 Gene. <i>Journal of Neurophysiology</i> , 1997, 78, 1414-1420.	1.8	78
80	P2 Receptor Excitation of Rodent Hypoglossal Motoneuron Activity <i>In Vitro</i> and <i>In Vivo</i> : A Molecular Physiological Analysis. <i>Journal of Neuroscience</i> , 1997, 17, 6325-6337.	3.6	60
81	Rhythmical Oral-Motor Activity Recorded in an In Vitro Brainstem Preparation. <i>Somatosensory & Motor Research</i> , 1996, 13, 39-48.	0.9	74
82	Generation of respiratory rhythm and pattern in mammals: insights from developmental studies. <i>Current Opinion in Neurobiology</i> , 1995, 5, 778-785.	4.2	78
83	Pacemaker behavior of respiratory neurons in medullary slices from neonatal rat. <i>Journal of Neurophysiology</i> , 1994, 72, 2598-2608.	1.8	176
84	Development of thyrotropin-releasing hormone and norepinephrine potentiation of inspiratory-related hypoglossal motoneuron discharge in neonatal and juvenile mice in vitro. <i>Journal of Neurophysiology</i> , 1994, 72, 2538-2541.	1.8	104
85	Locomotor activities in the decerebrate bird without phasic afferent input. <i>Neuroscience</i> , 1991, 40, 257-266.	2.3	16
86	Avian locomotion activated by brainstem infusion of neurotransmitter agonists and antagonists. <i>Experimental Brain Research</i> , 1991, 85, 659-673.	1.5	35
87	Role of the Telencephalon in the Synchronization of Locomotor and Respiratory Frequencies During Walking in Canada Geese. <i>Journal of Experimental Biology</i> , 1989, 145, 283-301.	1.7	13
88	Effects of Changes in Locomotor Intensity, Hypoxia and Hypercapnia on Locomotor/respiratory Synchrony During Walking/Running in Canada Geese. <i>Journal of Experimental Biology</i> , 1989, 147, 343-360.	1.7	6
89	Changes in ventilation and breathing pattern produced by changing body temperature and inspired CO2 concentration in turtles. <i>Respiration Physiology</i> , 1987, 67, 37-51.	2.7	31