George Bradley Richerson

List of Publications by Year
in descending order

126 papers	9,813 citations	36203 51 h-index	37111 96 g-index
130 all docs	130 docs citations	130 times ranked	6635 citing authors

#	Article	IF	Citations
1	Calcium-sensitive potassium channelopathy in human epilepsy and paroxysmal movement disorder. Nature Genetics, 2005, 37, 733-738.	9.4	513
2	Sudden unexpected death in epilepsy: epidemiology, mechanisms, and prevention. Lancet Neurology, The, 2016, 15, 1075-1088.	4.9	472
3	Serotonergic neurons as carbon dioxide sensors that maintain ph homeostasis. Nature Reviews Neuroscience, 2004, 5, 449-461.	4.9	435
4	Origin of variability in quantal size in cultured hippocampal neurons and hippocampal slices.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 5359-5362.	3.3	388
5	Impaired Respiratory and Body Temperature Control Upon Acute Serotonergic Neuron Inhibition. Science, 2011, 333, 637-642.	6.0	305
6	Mechanisms of sudden unexpected death in epilepsy: the pathway to prevention. Nature Reviews Neurology, 2014, 10, 271-282.	4.9	287
7	Defects in Breathing and Thermoregulation in Mice with Near-Complete Absence of Central Serotonin Neurons. Journal of Neuroscience, 2008, 28, 2495-2505.	1.7	283
8	Dynamic Equilibrium of Neurotransmitter Transporters: Not Just for Reuptake Anymore. Journal of Neurophysiology, 2003, 90, 1363-1374.	0.9	276
9	The Brainstem and Serotonin in the Sudden Infant Death Syndrome. Annual Review of Pathology: Mechanisms of Disease, 2009, 4, 517-550.	9.6	250
10	Acidosis-Stimulated Neurons of the Medullary Raphe Are Serotonergic. Journal of Neurophysiology, 2001, 85, 2224-2235.	0.9	231
11	RaphÃ© Neurons Stimulate Respiratory Circuit Activity by Multiple Mechanisms via Endogenously Released Serotonin and Substance P. Journal of Neuroscience, 2009, 29, 3720-3737.	1.7	231
12	Nonvesicular Inhibitory Neurotransmission via Reversal of the GABA Transporter GAT-1. Neuron, 2007, 56, 851-865.	3.8	222
13	Central serotonin neurons are required for arousal to CO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16354-16359.	3.3	221
14	Breathing Inhibited When Seizures Spread to the Amygdala and upon Amygdala Stimulation. Journal of Neuroscience, 2015, 35, 10281-10289.	1.7	180
15	Response to CO2 of neurons in the rostral ventral medulla in vitro. Journal of Neurophysiology, 1995, 73, 933-944.	0.9	178
16	Midbrain serotonergic neurons are central pH chemoreceptors. Nature Neuroscience, 2003, 6, 1139-1140.	7.1	177
17	The serotonin axis: Shared mechanisms in seizures, depression, and SUDEP. Epilepsia, 2011, 52, 28-38.	2.6	176
18	Chemosensitivity of rat medullary raphe neurones in primary tissue culture. Journal of Physiology, 1998, 511, 433-450.	1.3	169

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19	Thyrotropin-releasing hormone induces rhythmic bursting in neurons of the nucleus tractus solitarius. Science, 1985, 229, 67-69.	6.0	159
20	Chemosensitivity of serotonergic neurons in the rostral ventral medulla. Respiration Physiology, 2001, 129, 175-189.	2.8	146
21	Chemosensitive serotonergic neurons are closely associated with large medullary arteries. Nature Neuroscience, 2002, 5, 401-402.	7.1	146
22	Continuous Positive Airway Pressure: Evaluation of a Novel Therapy for Patients with Acute Ischemic Stroke. Sleep, 2011, 34, 1271-1277.	0.6	143
23	Transgenic Mice Lacking Serotonin Neurons Have Severe Apnea and High Mortality during Development. Journal of Neuroscience, 2009, 29, 10341-10349.	1.7	142
24	GABA Transaminase Inhibition Induces Spontaneous and Enhances Depolarization-Evoked GABA Efflux via Reversal of the GABA Transporter. Journal of Neuroscience, 2001, 21, 2630-2639.	1.7	139
25	Vigabatrin Induces Tonic Inhibition Via GABA Transporter Reversal Without Increasing Vesicular GABA Release. Journal of Neurophysiology, 2003, 89, 2021-2034.	0.9	138
26	Serotonin neurones have antiâ€convulsant effects and reduce seizureâ€induced mortality. Journal of Physiology, 2014, 592, 4395-4410.	1.3	136
27	Medullary serotonergic neurones and adjacent neurones that express neurokinin-1 receptors are both involved in chemoreceptionin vivo. Journal of Physiology, 2004, 556, 235-253.	1.3	130
28	Postconvulsive central apnea as a biomarker for sudden unexpected death in epilepsy (SUDEP). Neurology, 2019, 92, e171-e182.	1.5	130
29	Medullary serotonin neurons and central CO2 chemoreception. Respiratory Physiology and Neurobiology, 2009, 168, 49-58.	0.7	126
30	The role of medullary serotonin (5-HT) neurons in respiratory control: contributions to eupneic ventilation, CO₂ chemoreception, and thermoregulation. Journal of Applied Physiology, 2010, 108, 1425-1432.	1.2	117
31	Contributions of 5-HT neurons to respiratory control: Neuromodulatory and trophic effects. Respiratory Physiology and Neurobiology, 2008, 164, 222-232.	0.7	115
32	Development of chemosensitivity of rat medullary raphe neurons. Neuroscience, 1999, 90, 1001-1011.	1.1	113
33	The incidence and significance of periictal apnea in epileptic seizures. Epilepsia, 2018, 59, 573-582.	2.6	113
34	Quantification of the response of rat medullary raphe neurones to independent changes in pH o and P CO2. Journal of Physiology, 2002, 540, 951-970.	1.3	108
35	Functional and Developmental Identification of a Molecular Subtype of Brain Serotonergic Neuron Specialized to Regulate Breathing Dynamics. Cell Reports, 2014, 9, 2152-2165.	2.9	106
36	Severe peri-ictal respiratory dysfunction is common in Dravet syndrome. Journal of Clinical Investigation, 2018, 128, 1141-1153.	3.9	103

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37	Impaired Serotonergic Brainstem Function during and after Seizures. Journal of Neuroscience, 2016, 36, 2711-2722.	1.7	96
38	Carrier-Mediated GABA Release Activates GABA Receptors on Hippocampal Neurons. Journal of Neurophysiology, 1998, 80, 270-281.	0.9	87
39	Gabapentin potentiates the conductance increase induced by nipecotic acid in CA1 pyramidal neurons in vitro. Epilepsy Research, 1995, 20, 193-202.	0.8	85
40	Localization and behaviors in null mice suggest that <scp>ASIC1</scp> and <scp>ASIC2</scp> modulate responses to aversive stimuli. Genes, Brain and Behavior, 2014, 13, 179-194.	1.1	83
41	Role of the GABA Transporter in Epilepsy. Advances in Experimental Medicine and Biology, 2004, 548, 76-91.	0.8	83
42	Medullary serotonin neurons and their roles in central respiratory chemoreception. Respiratory Physiology and Neurobiology, 2010, 173, 256-263.	0.7	76
43	Disruption of the non-canonical Wnt gene PRICKLE2 leads to autism-like behaviors with evidence for hippocampal synaptic dysfunction. Molecular Psychiatry, 2013, 18, 1077-1089.	4.1	74
44	Serotonin Neurons and Central Respiratory Chemoreception. Progress in Brain Research, 2014, 209, 207-233.	0.9	72
45	Central Serotonergic Neurons Activate and Recruit Thermogenic Brown and Beige Fat and Regulate Glucose and Lipid Homeostasis. Cell Metabolism, 2015, 21, 692-705.	7.2	70
46	Sudden unexpected death in epilepsy: Fatal post-ictal respiratory and arousal mechanisms. Respiratory Physiology and Neurobiology, 2013, 189, 315-323.	0.7	69
47	Auto-Titrating Continuous Positive Airway Pressure for Patients With Acute Transient Ischemic Attack. Stroke, 2010, 41, 1464-1470.	1.0	67
48	Sudden unexpected death in epilepsy: basic mechanisms and clinical implications for prevention. Journal of Neurology, Neurosurgery and Psychiatry, 2016, 87, 402-413.	0.9	67
49	Role of chemoreceptors in mediating dyspnea. Respiratory Physiology and Neurobiology, 2009, 167, 9-19.	0.7	63
50	Incidence, Recurrence, and Risk Factors for Peri-ictal Central Apnea and Sudden Unexpected Death in Epilepsy. Frontiers in Neurology, 2019, 10, 166.	1.1	63
51	5-HT_{2A} receptor activation is necessary for CO₂-induced arousal. Journal of Neurophysiology, 2015, 114, 233-243.	0.9	55
52	Serum serotonin levels in patients with epileptic seizures. Epilepsia, 2018, 59, e91-e97.	2.6	50
53	Mechanism of Increased Open Probability by a Mutation of the BK Channel. Journal of Neurophysiology, 2006, 96, 1507-1516.	0.9	46
54	Looking for GABA in all the Wrong Places: The Relevance of Extrasynaptic GABAA Receptors to Epilepsy. Epilepsy Currents, 2004, 4, 239-242.	0.4	45

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55	A human amygdala site that inhibits respiration and elicits apnea in pediatric epilepsy. JCI Insight, 2020, 5, .	2.3	45
56	The Transmembrane Sodium Gradient Influences Ambient GABA Concentration by Altering the Equilibrium of GABA Transporters. Journal of Neurophysiology, 2006, 96, 2425-2436.	0.9	44
57	Medullary serotonin neurons are CO₂ sensitive in situ. Journal of Neurophysiology, 2013, 110, 2536-2544.	0.9	44
58	Effect of extracellular acid-base disturbances on the intracellular pH of neurones cultured from rat medullary raphe or hippocampus. Journal of Physiology, 2004, 559, 85-101.	1.3	43
59	Interaction between defects in ventilatory and thermoregulatory control in mice lacking 5-HT neurons. Respiratory Physiology and Neurobiology, 2008, 164, 350-357.	0.7	43
60	From unwitnessed fatality to witnessed rescue: Pharmacologic intervention in sudden unexpected death in epilepsy. Epilepsia, 2016, 57, 35-45.	2.6	43
61	GFP-expressing locus ceruleus neurons from Prp57 transgenic mice exhibit CO₂/H⁺ responses in primary cell culture. Journal of Applied Physiology, 2008, 105, 1301-1311.	1.2	39
62	Altered ventilatory and thermoregulatory control in male and female adult Pet-1 null mice. Respiratory Physiology and Neurobiology, 2011, 177, 133-140.	0.7	39
63	The Alteration of Neonatal Raphe Neurons by Prenatalâ€“Perinatal Nicotine. Meaning for Sudden Infant Death Syndrome. American Journal of Respiratory Cell and Molecular Biology, 2015, 53, 489-499.	1.4	39
64	Chemosensitivity of Phox2bâ€expressing retrotrapezoid neurons is mediated in part by input from 5â€HT neurons. Journal of Physiology, 2019, 597, 2741-2766.	1.3	38
65	Insomnia Caused by Serotonin Depletion is Due to Hypothermia. Sleep, 2015, 38, 1985-1993.	0.6	35
66	Enhancement of GABAA receptor-mediated conductances induced by nerve injury in a subclass of sensory neurons. Journal of Neurophysiology, 1995, 74, 673-683.	0.9	34
67	Serotonergic mechanisms are necessary for central respiratory chemoresponsiveness in situ. Respiratory Physiology and Neurobiology, 2013, 186, 214-220.	0.7	34
68	Time of Day and a Ketogenic Diet Influence Susceptibility to SUDEP in Scn1aR1407X/+ Mice. Frontiers in Neurology, 2019, 10, 278.	1.1	34
69	Isoflurane abolishes spontaneous firing of serotonin neurons and masks their pH/CO₂chemosensitivity. Journal of Neurophysiology, 2015, 113, 2879-2888.	0.9	33
70	Preservation of integrative function in a perfused guinea pig brain. Brain Research, 1990, 517, 7-18.	1.1	32
71	Chemosensitivity of non-respiratory rat CNS neurons in tissue culture. Brain Research, 2000, 860, 119-129.	1.1	32
72	Isoflurane, ketamine-xylazine, and urethane markedly alter breathing even at subtherapeutic doses. Journal of Neurophysiology, 2017, 118, 2389-2401.	0.9	32

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73	The BBSome in POMC and AgRP Neurons Is Necessary for Body Weight Regulation and Sorting of Metabolic Receptors. Diabetes, 2019, 68, 1591-1603.	0.3	32
74	Ventilatory response to CO₂ in patients with epilepsy. Epilepsia, 2019, 60, 508-517.	2.6	31
75	Postictal serotonin levels are associated with peri-ictal apnea. Neurology, 2019, 93, e1485-e1494.	1.5	28
76	Benefit of buspirone on chemoreflex and central apnoeas in heart failure: a randomized controlled crossover trial. European Journal of Heart Failure, 2021, 23, 312-320.	2.9	28
77	Dual Effects of 5-HT_{1a}Receptor Activation on Breathing in Neonatal Mice. Journal of Neuroscience, 2014, 34, 51-59.	1.7	27
78	Medullary 5-HT neurons: Switch from tonic respiratory drive to chemoreception during postnatal development. Neuroscience, 2017, 344, 1-14.	1.1	26
79	Serotonin: The Anti-SuddenDeathAmine?. Epilepsy Currents, 2013, 13, 241-244.	0.4	25
80	Modulation of Tonic GABA Currents by Anion Channel and Connexin Hemichannel Antagonists. Neurochemical Research, 2017, 42, 2551-2559.	1.6	25
81	Postictal Death Is Associated with Tonic Phase Apnea in a Mouse Model of Sudden Unexpected Death in Epilepsy. Annals of Neurology, 2021, 89, 1023-1035.	2.8	25
82	The association of serotonin reuptake inhibitors and benzodiazepines with ictal central apnea. Epilepsy and Behavior, 2019, 98, 73-79.	0.9	23
83	Amygdala lesions reduce seizure-induced respiratory arrest in DBA/1 mice. Epilepsy and Behavior, 2021, 121, 106440.	0.9	23
84	Maintenance of complex neural function during perfusion of the mammalian brain. Brain Research, 1987, 409, 128-132.	1.1	21
85	Diphtheria toxin treatment of Pet-1-Cre floxed diphtheria toxin receptor mice disrupts thermoregulation without affecting respiratory chemoreception. Neuroscience, 2014, 279, 65-76.	1.1	19
86	Postdepolarization Potentiation of GABAA Receptors: A Novel Mechanism Regulating Tonic Conductance in Hippocampal Neurons. Journal of Neuroscience, 2010, 30, 7672-7684.	1.7	18
87	Rapid regulation of tonic GABA currents in cultured rat hippocampal neurons. Journal of Neurophysiology, 2013, 109, 803-812.	0.9	18
88	Sudden Infant Death Syndrome: The Role of Central Chemosensitivity. Neuroscientist, 1997, 3, 3-7.	2.6	17
89	Modulation of Respiratory Activity by Hypocretin-1 (Orexin A) In Situ and In Vitro. Advances in Experimental Medicine and Biology, 2010, 669, 109-113.	0.8	17
90	Association of Peri-ictal Brainstem Posturing With Seizure Severity and Breathing Compromise in Patients With Generalized Convulsive Seizures. Neurology, 2021, 96, e352-e365.	1.5	16

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91	Medullary respiratory neurons in the guinea pig: localization and firing patterns. Brain Research, 1992, 591, 79-87.	1.1	15
92	Response to Comment on â€œImpaired Respiratory and Body Temperature Control Upon Acute Serotonergic Neuron Inhibitionâ€. Science, 2012, 337, 646-647.	6.0	13
93	Unexpected Death of a Child with Complex Febrile Seizuresâ€”Pathophysiology Similar to Sudden Unexpected Death in Epilepsy?. Frontiers in Neurology, 2017, 8, 21.	1.1	12
94	Seizure Clusters, Seizure Severity Markers, and SUDEP Risk. Frontiers in Neurology, 2021, 12, 643916.	1.1	12
95	Learning to take a deep breathâ€”with BDNF. Nature Medicine, 2004, 10, 25-26.	15.2	11
96	Functional link between the hypocretin and serotonin systems in the neural control of breathing and central chemosensitivity. Journal of Neurophysiology, 2015, 114, 381-389.	0.9	10
97	Development of brainstem 5â€<scp>HT</scp>_{1A} receptorâ€binding sites in serotoninâ€deficient mice. Journal of Neurochemistry, 2013, 126, 749-757.	2.1	8
98	Tolerability of a comprehensive cardiorespiratory monitoring protocol in an epilepsy monitoring unit. Epilepsy and Behavior, 2018, 85, 173-176.	0.9	8
99	Perinatal Nicotine Reduces Chemosensitivity of Medullary 5-HT Neurons after Maturation in Culture. Neuroscience, 2020, 446, 80-93.	1.1	7
100	Hypercapnic ventilatory response in epilepsy patients treated with VNS: A caseâ€control study. Epilepsia, 2021, 62, e140-e146.	2.6	6
101	Automated Analysis of Risk Factors for Postictal Generalized EEG Suppression. Frontiers in Neurology, 2021, 12, 669517.	1.1	5
102	A ketogenic diet protects DBA/1 and Scn1a mice against seizure-induced respiratory arrest independent of ketosis. Epilepsy and Behavior, 2021, 124, 108334.	0.9	5
103	Contribution of chemosensitive serotonergic neurons to interactions between the sleep-wake cycle and respiratory control. , 2008, , 529-554.		5
104	A dietary supplement for SUDEP prevention?. Nature Reviews Neurology, 2016, 12, 495-496.	4.9	4
105	Effect of Thoracic Epidural Anesthesia in a Rat Model of Phrenic Motor Inhibition after Upper Abdominal Surgery. Anesthesiology, 2018, 129, 791-807.	1.3	4
106	Adult Mice with 5â€HT Neuronâ€specific Knockout of Lmx1b Exhibit an Attenuated Hypercapnic Ventilatory Response. FASEB Journal, 2006, 20, A785.	0.2	4
107	Respiratory plasticity in sleep apnoea: should it be harnessed or restrained?. Journal of Physiology, 2010, 588, 3-4.	1.3	2
108	5-HT neurons and central CO2 chemoreception. Handbook of Behavioral Neuroscience, 2020, 31, 377-391.	0.7	2

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109	Quantification of the response of rat medullary raphe neurones to independent changes in pHo and PCO2. , 2002, 540, 951.		2
110	Changes in glucose do not alter baseline firing rate or chemosensitivity of serotonin neurons cultured from the medullary raphÃ©. Respiratory Physiology and Neurobiology, 2007, 157, 235-241.	0.7	1
111	Omega-3 fatty acids and SUDEP prevention â€“ Authorsâ€™ reply. Lancet Neurology, The, 2016, 15, 1303-1304.	4.9	1
112	Summary of the PAME 2018 Meeting. Epilepsy Currents, 2018, 18, 398-399.	0.4	1
113	Limbic system involvement in modulation of breathing during seizures and arousal. FASEB Journal, 2021, 35, .	0.2	1
114	832: Alleviation of Opioid-Induced Respiratory Depression by 5-HT7 Agonism. Critical Care Medicine, 2021, 49, 413-413.	0.4	1
115	5-HT Neurons and Central CO2 Chemoreception. Handbook of Behavioral Neuroscience, 2010, , 293-305.	0.7	0
116	Sleep apnea, stroke risk factors, and the arousal response. , 0, , 64-79.		0
117	Forebrain Response to Breathing in Humans during Awake and Unconscious States. FASEB Journal, 2021, 35, .	0.2	0
118	Relationship between dendrites of serotonin neurons and large midline vessels of the medulla.. FASEB Journal, 2006, 20, A785.	0.2	0
119	Serotonin (5â€HT) facilitates ventilation via distinct 5HT2 and 5HT4 receptorâ€mediated mechanisms in situ, in the arterially perfused rat brainstem preparation. FASEB Journal, 2008, 22, 1172.9.	0.2	0
120	Carotid body dysfunction and altered oxygen homeostasis in models of Parkinson's disease. FASEB Journal, 2008, 22, 1231.5.	0.2	0
121	Prp57 Transgenic Mice Express Multiple pH Sensitive Ion Channels in CO2/H+ Sensitive GFP+ Locus Coeruleus Neurons. FASEB Journal, 2008, 22, 174-174.	0.2	0
122	Neonatal mice lacking serotonin neurons have high mortality that is worsened on exposure to hypoxia and hypercapnia.. FASEB Journal, 2010, 24, 613.10.	0.2	0
123	Modulation of neuroventilation and central chemosensitivity: serotonergic and hypocretinergic effects. FASEB Journal, 2010, 24, 1026.5.	0.2	0
124	GABAergic neurons in the medullary raphÃ© possess network independent chemosensitivity in situ. FASEB Journal, 2012, 26, 894.13.	0.2	0
125	Isoflurane stimulates firing frequency and masks chemosensitivity of CO 2 â€inhibited GABAergic neurons in situ. FASEB Journal, 2013, 27, 1137.10.	0.2	0
126	Sleep and Stroke. , 2015, , 255-269.		0