David D Fuller

List of Publications by Year
in descending order

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Version: 2024-02-01

137 papers	6,736 citations	53660 45 h-index	69108 77 g-index
140 all docs	140 docs citations	140 times ranked	3079 citing authors

#	Article	IF	Citations
1	BDNF is necessary and sufficient for spinal respiratory plasticity following intermittent hypoxia. Nature Neuroscience, 2004, 7, 48-55.	7.1	418
2	Invited Review: Intermittent hypoxia and respiratory plasticity. Journal of Applied Physiology, 2001, 90, 2466-2475.	1.2	343
3	Chronic Intermittent Hypoxia Elicits Serotonin-Dependent Plasticity in the Central Neural Control of Breathing. Journal of Neuroscience, 2001, 21, 5381-5388.	1.7	235
4	Long term facilitation of phrenic motor output. Respiration Physiology, 2000, 121, 135-146.	2.8	198
5	Selected Contribution: Phrenic long-term facilitation requires 5-HT receptor activation during but not following episodic hypoxia. Journal of Applied Physiology, 2001, 90, 2001-2006.	1.2	177
6	Effect of co-activation of tongue protrudor and retractor muscles on tongue movements and pharyngeal airflow mechanics in the rat. Journal of Physiology, 1999, 519, 601-613.	1.3	170
7	Neural deficits contribute to respiratory insufficiency in Pompe disease. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 9419-9424.	3.3	160
8	Cervical prephrenic interneurons in the normal and lesioned spinal cord of the adult rat. Journal of Comparative Neurology, 2008, 511, 692-709.	0.9	148
9	Synaptic Pathways to Phrenic Motoneurons Are Enhanced by Chronic Intermittent Hypoxia after Cervical Spinal Cord Injury. Journal of Neuroscience, 2003, 23, 2993-3000.	1.7	147
10	Ventilatory long-term facilitation in unanesthetized rats. Journal of Applied Physiology, 2001, 91, 709-716.	1.2	131
11	Phase I/II Trial of Adeno-Associated Virusâ€“Mediated Alpha-Glucosidase Gene Therapy to the Diaphragm for Chronic Respiratory Failure in Pompe Disease: Initial Safety and Ventilatory Outcomes. Human Gene Therapy, 2013, 24, 630-640.	1.4	128
12	Co-activation of tongue protrudor and retractor muscles during chemoreceptor stimulation in the rat. Journal of Physiology, 1998, 507, 265-276.	1.3	124
13	Spinal circuitry and respiratory recovery following spinal cord injury. Respiratory Physiology and Neurobiology, 2009, 169, 123-132.	0.7	124
14	Recovery of phrenic activity and ventilation after cervical spinal hemisection in rats. Journal of Applied Physiology, 2006, 100, 800-806.	1.2	116
15	Respiratory-related control of extrinsic tongue muscle activity. Respiration Physiology, 1997, 110, 295-306.	2.8	111
16	Intermittent hypoxia and neurorehabilitation. Journal of Applied Physiology, 2015, 119, 1455-1465.	1.2	110
17	Modest spontaneous recovery of ventilation following chronic high cervical hemisection in rats. Experimental Neurology, 2008, 211, 97-106.	2.0	108
18	Respiratory Motor Recovery after Unilateral Spinal Cord Injury: Eliminating Crossed Phrenic Activity Decreases Tidal Volume and Increases Contralateral Respiratory Motor Output. Journal of Neuroscience, 2003, 23, 2494-2501.	1.7	100

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19	Respiratory neuroplasticity and cervical spinal cord injury: translational perspectives. Trends in Neurosciences, 2008, 31, 538-547.	4.2	97
20	The respiratory neuromuscular system in Pompe disease. Respiratory Physiology and Neurobiology, 2013, 189, 241-249.	0.7	97
21	Expression of hypoglossal long-term facilitation differs between substrains of Sprague-Dawley rat. Physiological Genomics, 2001, 4, 175-181.	1.0	93
22	Diaphragm and ventilatory dysfunction during cancer cachexia. FASEB Journal, 2013, 27, 2600-2610.	0.2	90
23	Respiratory plasticity: differential actions of continuous and episodic hypoxia and hypercapnia. Respiration Physiology, 2001, 129, 25-35.	2.8	87
24	Pompe disease gene therapy. Human Molecular Genetics, 2011, 20, R61-R68.	1.4	84
25	Physiological Correction of Pompe Disease by Systemic Delivery of Adeno-associated Virus Serotype 1 Vectors. Molecular Therapy, 2007, 15, 501-507.	3.7	83
26	Safety of Intradiaphragmatic Delivery of Adeno-Associated Virus-Mediated Alpha-Glucosidase (rAAV1-CMV-hGAA) Gene Therapy in Children Affected by Pompe Disease. Human Gene Therapy Clinical Development, 2017, 28, 208-218.	3.2	83
27	Cervical Spinal Cord Injury Upregulates Ventral Spinal 5-HT2A Receptors. Journal of Neurotrauma, 2005, 22, 203-213.	1.7	79
28	Long-Term Facilitation of Ventilation in Humans with Chronic Spinal Cord Injury. American Journal of Respiratory and Critical Care Medicine, 2014, 189, 57-65.	2.5	79
29	Respiratory function following bilateral mid-cervical contusion injury in the adult rat. Experimental Neurology, 2012, 235, 197-210.	2.0	74
30	Respiratory recovery following high cervical hemisection. Respiratory Physiology and Neurobiology, 2009, 169, 94-101.	0.7	70
31	Sustained Correction of Motoneuron Histopathology Following Intramuscular Delivery of AAV in Pompe Mice. Molecular Therapy, 2014, 22, 702-712.	3.7	69
32	Gel-mediated Delivery of AAV1 Vectors Corrects Ventilatory Function in Pompe Mice With Established Disease. Molecular Therapy, 2010, 18, 502-510.	3.7	66
33	Intrapleural Administration of AAV9 Improves Neural and Cardiorespiratory Function in Pompe Disease. Molecular Therapy, 2013, 21, 1661-1667.	3.7	63
34	Peripheral nerve and neuromuscular junction pathology in Pompe disease. Human Molecular Genetics, 2015, 24, 625-636.	1.4	63
35	Graded unilateral cervical spinal cord injury and respiratory motor recovery. Respiratory Physiology and Neurobiology, 2009, 165, 245-253.	0.7	61
36	Ventilatory Long-Term Facilitation in Humans. American Journal of Respiratory and Critical Care Medicine, 2014, 189, 1009-1010.	2.5	57

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37	Neuronal progenitor transplantation and respiratory outcomes following upper cervical spinal cord injury in adult rats. Experimental Neurology, 2010, 225, 231-236.	2.0	52
38	Respiratory neuroplasticity â€“ Overview, significance and future directions. Experimental Neurology, 2017, 287, 144-152.	2.0	52
39	Effect of pulmonary stretch receptor feedback and CO 2 on upper airway and respiratory pump muscle activity in the rat. Journal of Physiology, 2001, 532, 525-534.	1.3	51
40	Breathing patterns after mid-cervical spinal contusion in rats. Experimental Neurology, 2011, 231, 97-103.	2.0	51
41	Neural control of phrenic motoneuron discharge. Respiratory Physiology and Neurobiology, 2011, 179, 71-79.	0.7	50
42	Developmental plasticity of the hypoxic ventilatory response in rats induced by neonatal hypoxia. Journal of Physiology, 2004, 557, 645-660.	1.3	49
43	Episodic hypoxia induces long-term facilitation of neural drive to tongue protrudor and retractor muscles. Journal of Applied Physiology, 2005, 98, 1761-1767.	1.2	48
44	Localizing Effects of Leptin on Upper Airway and Respiratory Control during Sleep. Sleep, 2016, 39, 1097-1106.	0.6	48
45	Injectable hydrogels of optimized acellular nerve for injection in the injured spinal cord. Biomedical Materials (Bristol), 2018, 13, 034110.	1.7	48
46	Spiny mouse (Acomys): an emerging research organism for regenerative medicine with applications beyond the skin. Npj Regenerative Medicine, 2021, 6, 1.	2.5	48
47	Long-term facilitation of ipsilateral but not contralateral phrenic output after cervical spinal cord hemisection. Experimental Neurology, 2006, 200, 74-81.	2.0	47
48	Comparative impact of AAV and enzyme replacement therapy on respiratory and cardiac function in adult Pompe mice. Molecular Therapy - Methods and Clinical Development, 2015, 2, 15007.	1.8	47
49	Hypoglossal Neuropathology and Respiratory Activity in Pompe Mice. Frontiers in Physiology, 2011, 2, 31.	1.3	46
50	Correcting <scp>N</scp>euromuscular <scp>D</scp>eficits <scp>W</scp>ith <scp>G</scp>ene <scp>T</scp>herapy in <scp>P</scp>ompe <scp>D</scp>isease. Annals of Neurology, 2015, 78, 222-234.	2.8	45
51	Ventilation and phrenic output following high cervical spinal hemisection in male vs. female rats. Respiratory Physiology and Neurobiology, 2008, 162, 160-167.	0.7	42
52	Spinal Delivery of AAV Vector Restores Enzyme Activity and Increases Ventilation in Pompe Mice. Molecular Therapy, 2012, 20, 21-27.	3.7	41
53	The impact of spinal cord injury on breathing during sleep. Respiratory Physiology and Neurobiology, 2013, 188, 344-354.	0.7	41
54	Intraspinal transplantation and modulation of donor neuron electrophysiological activity. Experimental Neurology, 2014, 251, 47-57.	2.0	41

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55	Neuropathology in respiratory-related motoneurons in young Pompe (Gaa) mice. Respiratory Physiology and Neurobiology, 2016, 227, 48-55.	0.7	41
56	Advancements in AAV-mediated Gene Therapy for Pompe Disease. Journal of Neuromuscular Diseases, 2020, 7, 15-31.	1.1	41
57	Contribution of the spontaneous crossed-phrenic phenomenon to inspiratory tidal volume in spontaneously breathing rats. Journal of Applied Physiology, 2012, 112, 96-105.	1.2	40
58	Intraspinal microstimulation and diaphragm activation after cervical spinal cord injury. Journal of Neurophysiology, 2017, 117, 767-776.	0.9	40
59	Retrograde Gene Delivery to Hypoglossal Motoneurons Using Adeno-Associated Virus Serotype 9. Human Gene Therapy Methods, 2012, 23, 148-156.	2.1	39
60	Stimulation of Respiratory Motor Output and Ventilation in a Murine Model of Pompe Disease by Ampakines. American Journal of Respiratory Cell and Molecular Biology, 2015, 53, 326-335.	1.4	39
61	Phrenic Motoneuron Discharge Patterns During Hypoxia-Induced Short-Term Potentiation in Rats. Journal of Neurophysiology, 2009, 102, 2184-2193.	0.9	38
62	Anatomy and physiology of phrenic afferent neurons. Journal of Neurophysiology, 2017, 118, 2975-2990.	0.9	38
63	Chronic cervical spinal sensory denervation reveals ineffective spinal pathways to phrenic motoneurons in the rat. Neuroscience Letters, 2002, 323, 25-28.	1.0	37
64	The phrenic motor nucleus in the adult mouse. Experimental Neurology, 2010, 226, 254-258.	2.0	36
65	Phrenic motoneuron discharge patterns following chronic cervical spinal cord injury. Experimental Neurology, 2013, 249, 20-32.	2.0	36
66	Influence of posture and breathing route on neural drive to upper airway dilator muscles during exercise. Journal of Applied Physiology, 2000, 89, 590-598.	1.2	34
67	Recovery of inspiratory intercostal muscle activity following high cervical hemisection. Respiratory Physiology and Neurobiology, 2012, 183, 186-192.	0.7	34
68	Intermittent Hypoxia Enhances Functional Connectivity of Midcervical Spinal Interneurons. Journal of Neuroscience, 2017, 37, 8349-8362.	1.7	33
69	Pompe disease gene therapy: neural manifestations require consideration of CNS directed therapy. Annals of Translational Medicine, 2019, 7, 290-290.	0.7	33
70	Fatiguing contractions of tongue protrudor and retractor muscles: influence of systemic hypoxia. Journal of Applied Physiology, 2000, 88, 2123-2130.	1.2	32
71	Rapid diaphragm atrophy following cervical spinal cord hemisection. Respiratory Physiology and Neurobiology, 2014, 192, 66-73.	0.7	30
72	Cervical spinal cord injury exacerbates ventilator-induced diaphragm dysfunction. Journal of Applied Physiology, 2016, 120, 166-177.	1.2	28

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73	Influence of vagal afferents on supraspinal and spinal respiratory activity following cervical spinal cord injury in rats. Journal of Applied Physiology, 2010, 109, 377-387.	1.2	27
74	Hypoxia triggers short term potentiation of phrenic motoneuron discharge after chronic cervical spinal cord injury. Experimental Neurology, 2015, 263, 314-324.	2.0	26
75	Intraspinal microstimulation for respiratory muscle activation. Experimental Neurology, 2018, 302, 93-103.	2.0	25
76	Molecular and histologic outcomes following spinal cord injury in spiny mice, <scp>Acomys cahirinus</scp>. Journal of Comparative Neurology, 2020, 528, 1535-1547.	0.9	25
77	Designer Receptors Exclusively Activated by Designer Drugs Approach to Treatment of Sleep-disordered Breathing. American Journal of Respiratory and Critical Care Medicine, 2021, 203, 102-110.	2.5	25
78	CrossTalk proposal: Mechanical ventilationâ€induced diaphragm atrophy is primarily due to inactivity. Journal of Physiology, 2013, 591, 5255-5257.	1.3	24
79	Single-session effects of acute intermittent hypoxia on breathing function after human spinal cord injury. Experimental Neurology, 2021, 342, 113735.	2.0	24
80	Spinal Interneurons and Forelimb Plasticity after Incomplete Cervical Spinal Cord Injury in Adult Rats. Journal of Neurotrauma, 2015, 32, 893-907.	1.7	23
81	In vivo intermittent hypoxia elicits enhanced expansion and neuronal differentiation in cultured neural progenitors. Experimental Neurology, 2012, 235, 238-245.	2.0	22
82	Transcriptome assessment of the Pompe (Gaa^{â˜'/â˜'}) mouse spinal cord indicates widespread neuropathology. Physiological Genomics, 2016, 48, 785-794.	1.0	21
83	Respiratory outcomes after mid-cervical transplantation of embryonic medullary cells in rats with cervical spinal cord injury. Experimental Neurology, 2016, 278, 22-26.	2.0	21
84	Mid-cervical interneuron networks following high cervical spinal cord injury. Respiratory Physiology and Neurobiology, 2020, 271, 103305.	0.7	21
85	Restoration of breathing after opioid overdose and spinal cord injury using temporal interference stimulation. Communications Biology, 2021, 4, 107.	2.0	21
86	Preinspiratory and inspiratory hypoglossal motor output during hypoxia-induced plasticity in the rat. Journal of Applied Physiology, 2010, 108, 1187-1198.	1.2	20
87	Airway smooth muscle dysfunction in Pompe (Gaa^{â˜'/â˜'}) mice. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2017, 312, L873-L881.	1.3	20
88	High-frequency epidural stimulation across the respiratory cycle evokes phrenic short-term potentiation after incomplete cervical spinal cord injury. Journal of Neurophysiology, 2017, 118, 2344-2357.	0.9	20
89	Pharmacological modulation of hypoxia-induced respiratory neuroplasticity. Respiratory Physiology and Neurobiology, 2018, 256, 4-14.	0.7	20
90	Recovery of airway protective behaviors after spinal cord injury. Respiratory Physiology and Neurobiology, 2009, 169, 150-156.	0.7	19

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91	Midcervical neuronal discharge patterns during and following hypoxia. Journal of Neurophysiology, 2015, 113, 2091-2101.	0.9	19
92	Altered activation of the tibialis anterior in individuals with Pompe disease: Implications for motor unit dysfunction. Muscle and Nerve, 2015, 51, 877-883.	1.0	19
93	Altered activation of the diaphragm in late-onset Pompe disease. Respiratory Physiology and Neurobiology, 2016, 222, 11-15.	0.7	19
94	Diaphragm Pacing as a Rehabilitative Tool for Patients With Pompe Disease Who Are Ventilator-Dependent: Case Series. Physical Therapy, 2016, 96, 696-703.	1.1	18
95	Automated Gait Analysis Through Hues and Areas (AGATHA): A Method to Characterize the Spatiotemporal Pattern of Rat Gait. Annals of Biomedical Engineering, 2017, 45, 711-725.	1.3	18
96	Histological identification of phrenic afferent projections to the spinal cord. Respiratory Physiology and Neurobiology, 2017, 236, 57-68.	0.7	18
97	Ampakines stimulate phrenic motor output after cervical spinal cord injury. Experimental Neurology, 2020, 334, 113465.	2.0	18
98	Neural drive to tongue protrudor and retractor muscles following pulmonary C-fiber activation. Journal of Applied Physiology, 2007, 102, 434-444.	1.2	16
99	Targeted activation of spinal respiratory neural circuits. Experimental Neurology, 2020, 328, 113256.	2.0	16
100	Prenatal nicotine exposure alters respiratory long-term facilitation in neonatal rats. Respiratory Physiology and Neurobiology, 2009, 169, 333-337.	0.7	15
101	Hyperbaric Oxygen Treatment Following Mid-Cervical Spinal Cord Injury Preserves Diaphragm Muscle Function. International Journal of Molecular Sciences, 2020, 21, 7219.	1.8	15
102	Phrenicotomy alters phrenic long-term facilitation following intermittent hypoxia in anesthetized rats. Journal of Applied Physiology, 2010, 109, 279-287.	1.2	14
103	AAV Gene Therapy Utilizing Glycosylation-Independent Lysosomal Targeting Tagged GAA in the Hypoglossal Motor System of Pompe Mice. Molecular Therapy - Methods and Clinical Development, 2019, 15, 194-203.	1.8	14
104	Sex differences in heart rate variability during sleep following prenatal nicotine exposure in rat pups. Behavioural Brain Research, 2011, 219, 82-91.	1.2	13
105	Coupling multielectrode array recordings with silver labeling of recording sites to study cervical spinal network connectivity. Journal of Neurophysiology, 2017, 117, 1014-1029.	0.9	13
106	Intraspinal transplantation of subventricular zone-derived neural progenitor cells improves phrenic motor output after high cervical spinal cord injury. Experimental Neurology, 2017, 287, 205-215.	2.0	13
107	Pulmonary C-fiber activation attenuates respiratory-related tongue movements. Journal of Applied Physiology, 2012, 113, 1369-1376.	1.2	12
108	Ampakine CX717 potentiates intermittent hypoxia-induced hypoglossal long-term facilitation. Journal of Neurophysiology, 2016, 116, 1232-1238.	0.9	12

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109	Ampakine pretreatment enables a single brief hypoxic episode to evoke phrenic motor facilitation. Journal of Neurophysiology, 2020, 123, 993-1003.	0.9	11
110	Ampakines Stimulate Diaphragm Activity after Spinal Cord Injury. Journal of Neurotrauma, 2021, 38, 3467-3482.	1.7	11
111	Cancer cachexia impairs neural respiratory drive in hypoxia but not hypercapnia. Journal of Cachexia, Sarcopenia and Muscle, 2019, 10, 63-72.	2.9	9
112	Case Studies in Neuroscience: Neuropathology and diaphragm dysfunction in ventilatory failure from late-onset Pompe disease. Journal of Neurophysiology, 2021, 126, 351-360.	0.9	8
113	Hypoxia-induced short-term potentiation of respiratory-modulated facial motor output in the rat. Respiratory Physiology and Neurobiology, 2010, 173, 107-111.	0.7	7
114	Power spectral analysis of hypoglossal nerve activity during intermittent hypoxia-induced long-term facilitation in mice. Journal of Neurophysiology, 2016, 115, 1372-1380.	0.9	7
115	Gene delivery to the hypoglossal motor system: preclinical studies and translational potential. Gene Therapy, 2021, 28, 402-412.	2.3	7
116	How does spinal cord injury lead to obstructive sleep apnoea?. Journal of Physiology, 2018, 596, 2633-2633.	1.3	6
117	Ampakine pretreatment enables a single hypoxic episode to produce phrenic motor facilitation with no added benefit of additional episodes. Journal of Neurophysiology, 2021, 126, 1420-1429.	0.9	6
118	Spinally delivered ampakine CX717 increases phrenic motor output in adult rats. Respiratory Physiology and Neurobiology, 2022, 296, 103814.	0.7	6
119	Respiratory muscles and motoneurons. Respiratory Physiology and Neurobiology, 2011, 179, 1-2.	0.7	4
120	Forelimb muscle plasticity following unilateral cervical spinal cord injury. Muscle and Nerve, 2016, 53, 475-478.	1.0	4
121	Respiratory resetting elicited by single pulse spinal stimulation. Respiratory Physiology and Neurobiology, 2020, 274, 103339.	0.7	4
122	Diaphragm Pacing and a Model for Respiratory Rehabilitation After Spinal Cord Injury. Journal of Neurologic Physical Therapy, 2021, 45, 235-242.	0.7	4
123	Phrenic afferent activation modulates cardiorespiratory output in the adult rat. Journal of Neurophysiology, 2021, 126, 2091-2103.	0.9	4
124	Autonomous control of ventilation through closed-loop adaptive respiratory pacing. Scientific Reports, 2020, 10, 21903.	1.6	3
125	Optogenetic activation of the diaphragm. Scientific Reports, 2022, 12, 6503.	1.6	3
126	Delivery of In Vivo Acute Intermittent Hypoxia in Neonatal Rodents to Prime Subventricular Zone-derived Neural Progenitor Cell Cultures. Journal of Visualized Experiments, 2015, , e52527.	0.2	2

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127	Hyperbaric Oxygen Therapy after Mid-Cervical Spinal Contusion Injury. Journal of Neurotrauma, 2022, 39, 715-723.	1.7	2
128	Spinal decision making for respiratory muscle recruitment?. Journal of Physiology, 2017, 595, 7017-7017.	1.3	1
129	Repeated intravenous doxapram induces phrenic motor facilitation. Experimental Neurology, 2013, 250, 108-115.	2.0	0
130	Cover Image, Volume 528, Issue 9. Journal of Comparative Neurology, 2020, 528, C1.	0.9	0
131	Intraspinal microstimulation induced respiratory phase resetting. FASEB Journal, 2017, 31, 1055.9.	0.2	0
132	Serotonergic immunoreactivity in the brainstem and spinal cord of mdx mice. FASEB Journal, 2018, 32, 625.6.	0.2	0
133	Distribution of brain derived neurotrophic factor (BDNF) immunostaining along the C2â€“C5 spinal cord in adult rats. FASEB Journal, 2019, 33, 844.12.	0.2	0
134	Coâ€localization of Isolectin B4 (IB4), Ionized Calciumâ€Binding Adapter Molecule 1 (Iba1), and Von Willebrand Factor (vWF) Immunostaining in the Midâ€Cervical Spinal Cord After Spinal Injury. FASEB Journal, 2019, 33, lb614.	0.2	0
135	Ampakine pretreatment enables a single brief hypoxic episode to evoke phrenic motor facilitation. FASEB Journal, 2019, 33, 843.9.	0.2	0
136	Comparing the Efficacy of Adenoâ€associated Virus Serotype 9 (AAV9) Mediated Retrograde Transgene Delivery to Hypoglossal (XII) Motor Neurons (MNs) in Mouse Versus Rat Models. FASEB Journal, 2019, 33, 843.2.	0.2	0
137	Unbiased analysis of plethysmography waveforms during opioidâ€induced hypoventilation in rats. FASEB Journal, 2019, 33, 548.5.	0.2	0