

Robert M Brownstone

List of Publications by Year in descending order

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77
papers

5,731
citations

81900

39
h-index

79698

73
g-index

90
all docs

90
docs citations

90
times ranked

3877
citing authors

#	ARTICLE	IF	CITATIONS
1	Câ€bouton components on rat extensor digitorum longus motoneurons are resistant to chronic functional overload. <i>Journal of Anatomy</i> , 2022, 241, 1157-1168.	1.5	3
2	Heterozygous <i><i>Dcc</i></i> Mutant Mice Have a Subtle Locomotor Phenotype. <i>ENeuro</i> , 2022, 9, ENEURO.0216-18.2021.	1.9	2
3	A central mechanism of analgesia in mice and humans lacking the sodium channel NaV1.7. <i>Neuron</i> , 2021, 109, 1497-1512.e6.	8.1	42
4	Elimination of glutamatergic transmission from Hb9 interneurons does not impact treadmill locomotion. <i>Scientific Reports</i> , 2021, 11, 16008.	3.3	10
5	Intrinsic brainstem circuits comprised of Chx10-expressing neurons contribute to reticulospinal output in mice. <i>Journal of Neurophysiology</i> , 2021, 126, 1978-1990.	1.8	9
6	Proximal and distal spinal neurons innervating multiple synergist and antagonist motor pools. <i>ELife</i> , 2021, 10, .	6.0	25
7	Reducing Intrathecal Baclofen Related Infections: Service Evaluation and Best Practice Guidelines. <i>Neuromodulation</i> , 2020, 23, 991-995.	0.8	8
8	Spinal motoneuron firing properties mature from rostral to caudal during postnatal development of the mouse. <i>Journal of Physiology</i> , 2020, 598, 5467-5485.	2.9	20
9	Key Steps in the Evolution of Mammalian Movement: A Prolegomenal Essay. <i>Neuroscience</i> , 2020, 450, 135-141.	2.3	8
10	Multistable properties of human subthalamic nucleus neurons in Parkinsonâ€™s disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 24326-24333.	7.1	8
11	Mechanisms of spinal cord stimulation for the treatment of pain: Still in the dark after 50 years. <i>European Journal of Pain</i> , 2019, 23, 652-659.	2.8	100
12	Sub-populations of Spinal V3 Interneurons Form Focal Modules of Layered Pre-motor Microcircuits. <i>Cell Reports</i> , 2018, 25, 146-156.e3.	6.4	72
13	Escape from homeostasis: spinal microcircuits and progression of amyotrophic lateral sclerosis. <i>Journal of Neurophysiology</i> , 2018, 119, 1782-1794.	1.8	30
14	Case Studies in Neuroscience: Evidence of motor thalamus reorganization following bilateral forearm amputations. <i>Journal of Neurophysiology</i> , 2018, 120, 1776-1780.	1.8	3
15	Reticulospinal Systems for Tuning Motor Commands. <i>Frontiers in Neural Circuits</i> , 2018, 12, 30.	2.8	83
16	Microcircuit formation following transplantation of mouse embryonic stem cell-derived neurons in peripheral nerve. <i>Journal of Neurophysiology</i> , 2017, 117, 1683-1689.	1.8	5
17	A Canadian Winter Indirectly Inactivates a Deep Brain Stimulation System. <i>Canadian Journal of Neurological Sciences</i> , 2017, 44, 332-333.	0.5	1
18	Tumor prevention facilitates delayed transplant of stem cellâ€derived motoneurons. <i>Annals of Clinical and Translational Neurology</i> , 2016, 3, 637-649.	3.7	5

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19	Spinal microcircuits comprising dl3 interneurons are necessary for motor functional recovery following spinal cord transection. <i>ELife</i> , 2016, 5, .	6.0	42
20	Motor Cortex Stimulation for Neuropathic Pain: A Randomized Cross-over Trial. <i>Canadian Journal of Neurological Sciences</i> , 2015, 42, 401-409.	0.5	28
21	Spinal circuits for motor learning. <i>Current Opinion in Neurobiology</i> , 2015, 33, 166-173.	4.2	33
22	Sensory-evoked perturbations of locomotor activity by sparse sensory input: a computational study. <i>Journal of Neurophysiology</i> , 2015, 113, 2824-2839.	1.8	8
23	Unraveling a Locomotor Network, Many Neurons at a Time. <i>Neuron</i> , 2015, 86, 9-11.	8.1	3
24	Dlk1 Promotes a Fast Motor Neuron Biophysical Signature Required for Peak Force Execution. <i>Science</i> , 2014, 343, 1264-1266.	12.6	64
25	Cutaneous afferent regulation of motor function. <i>Acta Neurobiologiae Experimentalis</i> , 2014, 74, 158-71.	0.7	12
26	Matchmaking: SK channels, Câ€boutons and motor units. <i>Journal of Physiology</i> , 2013, 591, 747-748.	2.9	4
27	Circuits for Grasping: Spinal dl3 Interneurons Mediate Cutaneous Control of Motor Behavior. <i>Neuron</i> , 2013, 78, 191-204.	8.1	121
28	Lhx3-Chx10 Reticulospinal Neurons in Locomotor Circuits. <i>Journal of Neuroscience</i> , 2013, 33, 14681-14692.	3.6	94
29	Low-threshold calcium currents contribute to locomotor-like activity in neonatal mice. <i>Journal of Neurophysiology</i> , 2012, 107, 103-113.	1.8	19
30	An in vitro spinal cord slice preparation for recording from lumbar motoneurons of the adult mouse. <i>Journal of Neurophysiology</i> , 2012, 107, 728-741.	1.8	60
31	Target Populations for First-In-Human Embryonic Stem Cell Research in Spinal Cord Injury. <i>Cell Stem Cell</i> , 2011, 8, 468-475.	11.1	118
32	The beginning of intracellular recording in spinal neurons: Facts, reflections, and speculations. <i>Brain Research</i> , 2011, 1409, 62-92.	2.2	13
33	Whither motoneurons?. <i>Brain Research</i> , 2011, 1409, 93-103.	2.2	11
34	Paths of discovery in motoneuron neurobiology. <i>Brain Research</i> , 2011, 1409, 1-2.	2.2	7
35	Reversal of the late phase of spike frequency adaptation in cat spinal motoneurons during fictive locomotion. <i>Journal of Neurophysiology</i> , 2011, 105, 1045-1050.	1.8	27
36	Genetically Defined Inhibitory Neurons in the Mouse Spinal Cord Dorsal Horn: A Possible Source of Rhythmic Inhibition of Motoneurons during Fictive Locomotion. <i>Journal of Neuroscience</i> , 2010, 30, 1137-1148.	3.6	52

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37	Spinal interneurons providing input to the final common path during locomotion. <i>Progress in Brain Research</i> , 2010, 187, 81-95.	1.4	71
38	Staircase Currents in Motoneurons: Insight into the Spatial Arrangement of Calcium Channels in the Dendritic Tree. <i>Journal of Neuroscience</i> , 2009, 29, 5343-5353.	3.6	36
39	Electrophysiological and Pharmacological Properties of Locomotor Activity-Related Neurons in cfos-EGFP Mice. <i>Journal of Neurophysiology</i> , 2009, 102, 3365-3383.	1.8	35
40	Functional characterization of cardiac progenitor cells and their derivatives in the embryonic heart postâ€œchamber formation. <i>Developmental Dynamics</i> , 2009, 238, 2787-2799.	1.8	14
41	A Cluster of Cholinergic Premotor Interneurons Modulates Mouse Locomotor Activity. <i>Neuron</i> , 2009, 64, 645-662.	8.1	378
42	Strategies for delineating spinal locomotor rhythm-generating networks and the possible role of Hb9 interneurons in rhythmogenesis. <i>Brain Research Reviews</i> , 2008, 57, 64-76.	9.0	133
43	A multitarget basal ganglia dopaminergic and GABAergic transplantation strategy enhances behavioural recovery in parkinsonian rats. <i>Brain</i> , 2008, 131, 2106-2126.	7.6	15
44	Transplanted Mouse Embryonic Stem-Cell-Derived Motoneurons Form Functional Motor Units and Reduce Muscle Atrophy. <i>Journal of Neuroscience</i> , 2008, 28, 12409-12418.	3.6	93
45	Hb9 Interneurons: Reply to Ziskind-Conhaim and Hinckley. <i>Journal of Neurophysiology</i> , 2008, 99, 1047-1049.	1.8	4
46	Two-Photon Calcium Imaging of Network Activity in XFP-Expressing Neurons in the Mouse. <i>Journal of Neurophysiology</i> , 2007, 97, 3118-3125.	1.8	49
47	Spinal cholinergic interneurons regulate the excitability of motoneurons during locomotion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 2448-2453.	7.1	264
48	Heterogeneous Electrotonic Coupling and Synchronization of Rhythmic Bursting Activity in Mouse Hb9 Interneurons. <i>Journal of Neurophysiology</i> , 2007, 98, 2370-2381.	1.8	69
49	Take Your PIC: Motoneuronal Persistent Inward Currents May Be Somatic as Well as Dendritic. Focus on â€œFacilitation of Somatic Calcium Channels Can Evoke Prolonged Tail Currents in Rat Hypoglossal Motoneuronsâ€œ. <i>Journal of Neurophysiology</i> , 2007, 98, 579-580.	1.8	2
50	Sustained relief of dystonia following cessation of deep brain stimulation. <i>Movement Disorders</i> , 2007, 22, 1958-1962.	3.9	59
51	Heterogeneity of V2â€œderived interneurons in the adult mouse spinal cord. <i>European Journal of Neuroscience</i> , 2007, 26, 3003-3015.	2.6	107
52	Beginning at the end: Repetitive firing properties in the final common pathway. <i>Progress in Neurobiology</i> , 2006, 78, 156-172.	5.7	83
53	Rapid pH and PO2changes in the tissue recording chamber during stoppage of a gas-equilibrated perfusate: effects on calcium currents in ventral horn neurons. <i>European Journal of Neuroscience</i> , 2006, 24, 1353-1358.	2.6	3
54	Motoneurons Derived from Embryonic Stem Cells Express Transcription Factors and Develop Phenotypes Characteristic of Medial Motor Column Neurons. <i>Journal of Neuroscience</i> , 2006, 26, 3256-3268.	3.6	96

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55	Reducing Hardware-Related Complications of Deep Brain Stimulation. Canadian Journal of Neurological Sciences, 2005, 32, 194-200.	0.5	129
56	Mechanisms underlying the early phase of spike frequency adaptation in mouse spinal motoneurons. Journal of Physiology, 2005, 566, 519-532.	2.9	158
57	Conditional Rhythmicity of Ventral Spinal Interneurons Defined by Expression of the Hb9 Homeodomain Protein. Journal of Neuroscience, 2005, 25, 5710-5719.	3.6	225
58	Functional Properties of Motoneurons Derived from Mouse Embryonic Stem Cells. Journal of Neuroscience, 2004, 24, 7848-7858.	3.6	200
59	Postnatal development of cholinergic synapses on mouse spinal motoneurons. Journal of Comparative Neurology, 2004, 474, 13-23.	1.6	88
60	Intracranial Presentation of Systemic Hodgkin's Disease. Leukemia and Lymphoma, 2004, 45, 1667-1671.	1.3	70
61	Hyperexcitable dendrites in motoneurons and their neuromodulatory control during motor behavior. Trends in Neurosciences, 2003, 26, 688-695.	8.6	210
62	Mechanism for Activation of Locomotor Centers in the Spinal Cord by Stimulation of the Mesencephalic Locomotor Region. Journal of Neurophysiology, 2003, 90, 1464-1478.	1.8	122
63	Functional motor neurons differentiating from mouse multipotent spinal cord precursor cells in culture and after transplantation into transected sciatic nerve. Journal of Neurosurgery, 2003, 98, 1094-1103.	1.6	37
64	Characterization of calcium currents in functionally mature mouse spinal motoneurons. European Journal of Neuroscience, 2000, 12, 1624-1634.	2.6	105
65	Dendritic L-type calcium currents in mouse spinal motoneurons: implications for bistability. European Journal of Neuroscience, 2000, 12, 1635-1646.	2.6	196
66	Simulation techniques for localising and identifying the kinetics of calcium channels in dendritic neurones. Neurocomputing, 2000, 32-33, 173-180.	5.9	3
67	Development of L-type calcium channels and a nifedipine-sensitive motor activity in the postnatal mouse spinal cord. European Journal of Neuroscience, 1999, 11, 3481-3487.	2.6	96
68	An in vitro functionally mature mouse spinal cord preparation for the study of spinal motor networks. Brain Research, 1999, 816, 493-499.	2.2	181
69	How Do We Approach the Locomotor Network in the Mammalian Spinal Cord?a. Annals of the New York Academy of Sciences, 1998, 860, 70-82.	3.8	84
70	Human immunodeficiency virus type 1 tat activates non-N-methyl-D-aspartate excitatory amino acid receptors and causes neurotoxicity. Annals of Neurology, 1995, 37, 373-380.	5.3	286
71	Mechanical entrainment of fictive locomotion in the decerebrate cat. Journal of Neurophysiology, 1994, 71, 2074-2086.	1.8	228
72	Transmission in a locomotor-related group Ib pathway from hindlimb extensor muscles in the cat. Experimental Brain Research, 1994, 98, 213-28.	1.5	258

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73	Voltage-dependent excitation of motoneurons from spinal locomotor centres in the cat. <i>Experimental Brain Research</i> , 1994, 102, 34-44.	1.5	103
74	Control of functional systems in the brainstem and spinal cord. <i>Current Opinion in Neurobiology</i> , 1992, 2, 794-801.	4.2	39
75	On the regulation of repetitive firing in lumbar motoneurons during fictive locomotion in the cat. <i>Experimental Brain Research</i> , 1992, 90, 441-55.	1.5	142
76	The effects of caffeine on ischemic neuronal injury as determined by magnetic resonance imaging and histopathology. <i>Neuroscience</i> , 1991, 42, 171-182.	2.3	78
77	Single Photon Emission Computed Tomography Using ^{99m} Tc-HM-PAO in the Routine Evaluation of Alzheimer's Disease. <i>Canadian Journal of Neurological Sciences</i> , 1991, 18, 59-62.	0.5	27