

# Mark W Chapleau

## List of Publications by Year in descending order

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111  
papers

3,822  
citations

109321

35  
h-index

133252

59  
g-index

113  
all docs

113  
docs citations

113  
times ranked

4425  
citing authors

#	ARTICLE	IF	CITATIONS
1	PIEZOs mediate neuronal sensing of blood pressure and the baroreceptor reflex. <i>Science</i> , 2018, 362, 464-467.	12.6	312
2	The Ion Channel ASIC2 Is Required for Baroreceptor and Autonomic Control of the Circulation. <i>Neuron</i> , 2009, 64, 885-897.	8.1	186
3	Structural Versus Functional Modulation of the Arterial Baroreflex. <i>Hypertension</i> , 1995, 26, 341-347.	2.7	137
4	The immune system and hypertension. <i>Immunologic Research</i> , 2014, 59, 243-253.	2.9	136
5	Autonomic Neural Regulation of the Immune System. <i>Hypertension</i> , 2012, 59, 755-762.	2.7	134
6	Methods of assessing vagus nerve activity and reflexes. <i>Heart Failure Reviews</i> , 2011, 16, 109-127.	3.9	131
7	Nitric Oxide as an Autocrine Regulator of Sodium Currents in Baroreceptor Neurons. <i>Neuron</i> , 1998, 20, 1039-1049.	8.1	128
8	Mechanisms Determining Sensitivity of Baroreceptor Afferents in Health and Disease. <i>Annals of the New York Academy of Sciences</i> , 2001, 940, 1-19.	3.8	121
9	Testing the autonomic nervous system. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2013, 115, 115-136.	1.8	111
10	Mechanisms of Resetting of Arterial Baroreceptors: An Overview. <i>American Journal of the Medical Sciences</i> , 1988, 295, 327-334.	1.1	102
11	Chemoreceptor Hypersensitivity, Sympathetic Excitation, and Overexpression of ASIC and TASK Channels Before the Onset of Hypertension in SHR. <i>Circulation Research</i> , 2010, 106, 536-545.	4.5	99
12	Neurohormonal Modulation of the Innate Immune System Is Proinflammatory in the Prehypertensive Spontaneously Hypertensive Rat, a Genetic Model of Essential Hypertension. <i>Circulation Research</i> , 2012, 111, 1190-1197.	4.5	97
13	Oxygen-Derived Free Radicals Contribute to Baroreceptor Dysfunction in Atherosclerotic Rabbits. <i>Circulation Research</i> , 1996, 79, 802-811.	4.5	95
14	Chronic intermittent hypoxia impairs baroreflex control of heart rate but enhances heart rate responses to vagal efferent stimulation in anesthetized mice. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 293, H997-H1006.	3.2	87
15	Carotid body chemoreceptors: physiology, pathology, and implications for health and disease. <i>Physiological Reviews</i> , 2021, 101, 1177-1235.	28.8	85
16	PERIPHERAL CENTRAL MECHANISMS OF BAROREFLEX RESETTING. <i>Clinical and Experimental Pharmacology and Physiology</i> , 1989, 16, 31-43.	1.9	82
17	Modulation of Baroreceptor Activity by Nitric Oxide and <i>S</i> -Nitrosocysteine. <i>Circulation Research</i> , 1995, 76, 426-433.	4.5	81
18	Acid-Sensing Ion Channels Contribute to Transduction of Extracellular Acidosis in Rat Carotid Body Glomus Cells. <i>Circulation Research</i> , 2007, 101, 1009-1019.	4.5	71

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19	Analysis of afferent, central, and efferent components of the baroreceptor reflex in mice. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2002, 283, R1033-R1040.	1.8	62
20	Selective impairment of central mediation of baroreflex in anesthetized young adult Fischer 344 rats after chronic intermittent hypoxia. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 293, H2809-H2818.	3.2	60
21	Baroreceptor Reflex Sensitivity Estimated by the Sequence Technique is Reliable in Rats. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2006, 291, H482-H483.	3.2	59
22	Frequency-dependent baroreflex modulation of blood pressure and heart rate variability in conscious mice. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005, 289, H1968-H1975.	3.2	55
23	Non-voltage-gated Ca <sup>2+</sup> Influx Through Mechanosensitive Ion Channels in Aortic Baroreceptor Neurons. <i>Circulation Research</i> , 1997, 80, 861-867.	4.5	52
24	Baroreflex responses to electrical stimulation of aortic depressor nerve in conscious SHR. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 292, H593-H600.	3.2	47
25	Vascular nitric oxide and superoxide anion contribute to sex-specific programmed cardiovascular physiology in mice. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2009, 296, R651-R662.	1.8	47
26	Receptor Activity-Modifying Protein 1 Increases Baroreflex Sensitivity and Attenuates Angiotensin-Induced Hypertension. <i>Hypertension</i> , 2010, 55, 627-635.	2.7	46
27	Angiotensin II-induced hypertension and cardiac hypertrophy are differentially mediated by TLR3- and TLR4-dependent pathways. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2019, 316, H1027-H1038.	3.2	45
28	Regulator of G Protein Signaling 2 Deficiency Causes Endothelial Dysfunction and Impaired Endothelium-derived Hyperpolarizing Factor-mediated Relaxation by Dysregulating Gi/o Signaling. <i>Journal of Biological Chemistry</i> , 2012, 287, 12541-12549.	3.4	43
29	Dual Activation of TRIF and MyD88 Adaptor Proteins by Angiotensin II Evokes Opposing Effects on Pressure, Cardiac Hypertrophy, and Inflammatory Gene Expression. <i>Hypertension</i> , 2015, 66, 647-656.	2.7	43
30	Chronic vagal nerve stimulation prevents high-salt diet-induced endothelial dysfunction and aortic stiffening in stroke-prone spontaneously hypertensive rats. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 311, H276-H285.	3.2	42
31	Nitric oxide enhances slow inactivation of voltage-dependent sodium currents in rat nodose neurons. <i>Neuroscience Letters</i> , 1999, 271, 159-162.	2.1	40
32	A novel effect of angiotensin on renal sympathetic nerve activity in mice. <i>Journal of Hypertension</i> , 2001, 19, 609-618.	0.5	40
33	Mechanosensory transduction of vagal and baroreceptor afferents revealed by study of isolated nodose neurons in culture. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2002, 98, 59-63.	2.8	40
34	Structural remodeling of nucleus ambiguus projections to cardiac ganglia following chronic intermittent hypoxia in C57BL/6J mice. <i>Journal of Comparative Neurology</i> , 2008, 509, 103-117.	1.6	39
35	Nicotine Mediates CD161 <sup>+</sup> Renal Macrophage Infiltration and Premature Hypertension in the Spontaneously Hypertensive Rat. <i>Circulation Research</i> , 2016, 119, 1101-1115.	4.5	39
36	Calcium/Calmodulin-Dependent Kinase II Inhibition in Smooth Muscle Reduces Angiotensin II-Induced Hypertension by Controlling Aortic Remodeling and Baroreceptor Function. <i>Journal of the American Heart Association</i> , 2015, 4, e001949.	3.7	35

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37	The volume-regulated anion channel (LRRC8) in nodose neurons is sensitive to acidic pH. <i>JCI Insight</i> , 2017, 2, e90632.	5.0	35
38	Differential modulation of baroreflex control of heart rate by neuron- vs. glia-derived angiotensin II. <i>Physiological Genomics</i> , 2004, 20, 66-72.	2.3	34
39	Chronic oral administration of Ang-(1-7) improves skeletal muscle, autonomic and locomotor phenotypes in muscular dystrophy. <i>Clinical Science</i> , 2014, 127, 101-109.	4.3	34
40	Exercise prevents development of autonomic dysregulation and hyperalgesia in a mouse model of chronic muscle pain. <i>Pain</i> , 2016, 157, 387-398.	4.2	33
41	Qualitative and quantitative morphology of renal nerves in C57BL/6J mice. <i>The Anatomical Record</i> , 2002, 268, 399-404.	1.8	32
42	Mechanosensitive ion channels in putative aortic baroreceptor neurons. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 1998, 275, H1497-H1501.	3.2	31
43	Blood pressure regulation XI: overview and future research directions. <i>European Journal of Applied Physiology</i> , 2014, 114, 579-586.	2.5	31
44	Angiotensin Selectively Activates a Subpopulation of Postganglionic Sympathetic Neurons in Mice. <i>Circulation Research</i> , 2001, 88, 787-793.	4.5	29
45	Editorial on Arterial Baroreflex Issue. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2012, 172, 1-3.	2.8	29
46	Degeneration of vagal efferent axons and terminals in cardiac ganglia of aged rats. <i>Journal of Comparative Neurology</i> , 2007, 504, 74-88.	1.6	26
47	Rapid adaptation of central pathways explains the suppressed baroreflex with aging. <i>Neurobiology of Aging</i> , 1991, 12, 601-604.	3.1	25
48	The Prostacyclin Analogue Carbacyclin Inhibits Ca <sup>2+</sup> -Activated K <sup>+</sup> Current in Aortic Baroreceptor Neurones of Rats. <i>Journal of Physiology</i> , 1997, 501, 275-287.	2.9	25
49	Ganglionic Action of Angiotensin Contributes to Sympathetic Activity in Renin-Angiotensinogen Transgenic Mice. <i>Hypertension</i> , 2004, 43, 312-316.	2.7	23
50	Fibrotic Aortic Valve Stenosis in Hypercholesterolemic/Hypertensive Mice. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2016, 36, 466-474.	2.4	23
51	Responses of glomus cells to hypoxia and acidosis are uncoupled, reciprocal and linked to ASIC3 expression: selectivity of chemosensory transduction. <i>Journal of Physiology</i> , 2013, 591, 919-932.	2.9	22
52	Hemodynamic Changes during Endotracheal Suctioning Are Mediated by Increased Autonomic Activity. <i>Pediatric Research</i> , 1993, 33, 649-652.	2.3	21
53	Baroreceptor Reflexes. , 2012, , 161-165.		21
54	Adenovirus-mediated gene transfer to cultured nodose sensory neurons. <i>Molecular Brain Research</i> , 1997, 51, 33-41.	2.3	19

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55	Autonomic, locomotor and cardiac abnormalities in a mouse model of muscular dystrophy: targeting the renin-angiotensin system. <i>Experimental Physiology</i> , 2014, 99, 627-631.	2.0	17
56	Research Opportunities in Autonomic Neural Mechanisms of Cardiopulmonary Regulation. <i>JACC Basic To Translational Science</i> , 2022, 7, 265-293.	4.1	17
57	Mechano- and chemosensitivity of rat nodose neurones - selective excitatory effects of prostacyclin. <i>Journal of Physiology</i> , 2007, 582, 177-194.	2.9	16
58	Human papillomavirus (HPV) vaccine and autonomic disorders: a position statement from the American Autonomic Society. <i>Clinical Autonomic Research</i> , 2020, 30, 13-18.	2.5	15
59	Modulation of baroreceptor activity by gene transfer of nitric oxide synthase to carotid sinus adventitia. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2003, 284, R1190-R1198.	1.8	14
60	Abnormal CD161 + immune cells and retinoic acid receptor-related orphan receptor mediate enhanced IL-17F expression in the setting of genetic hypertension. <i>Journal of Allergy and Clinical Immunology</i> , 2017, 140, 809-821.e3.	2.9	14
61	Platelet Activation in Carotid Sinus Triggers Reflex Sympathoinhibition and Hypotension. <i>Hypertension</i> , 1996, 27, 584-590.	2.7	14
62	Slow inactivation of sodium currents in the rat nodose neurons. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2001, 87, 209-216.	2.8	13
63	Habituation of parasympathetic-mediated heart rate responses to recurring acoustic startle. <i>Frontiers in Psychology</i> , 2014, 5, 1288.	2.1	13
64	Gene Transfer to Carotid Sinus In Vivo. <i>Hypertension</i> , 1997, 30, 708-713.	2.7	12
65	Determinants of baroreflex sensitivity in health and disease. <i>Clinical Autonomic Research</i> , 2003, 13, 310-313.	2.5	11
66	Paracrine Role of Prostanoids in Activation of Arterial Baroreceptors: An Overview. <i>Clinical and Experimental Hypertension</i> , 1991, 13, 817-824.	0.3	10
67	Neuronal Prostacyclin Is an Autocrine Regulator of Arterial Baroreceptor Activity. <i>Hypertension</i> , 2005, 46, 540-546.	2.7	10
68	Increased receptor activity-modifying protein 1 in the nervous system is sufficient to protect against autonomic dysregulation and hypertension. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2019, 39, 690-703.	4.3	10
69	Platelet-induced suppression of baroreceptor activity is mediated by a stable diffusible factor. <i>Journal of the Autonomic Nervous System</i> , 1995, 51, 59-65.	1.9	9
70	Neurocardiovascular regulation in mice: Experimental approaches and novel findings. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2003, 30, 885-893.	1.9	9
71	TMEM16B determines cholecystokinin sensitivity of intestinal vagal afferents of nodose neurons. <i>JCI Insight</i> , 2019, 4, .	5.0	8
72	Altering Early Life Gut Microbiota Has Long-Term Effect on Immune System and Hypertension in Spontaneously Hypertensive Rats. <i>Frontiers in Physiology</i> , 2021, 12, 752924.	2.8	8

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73	NAD(P)H oxidase-induced oxidative stress in sympathetic ganglia of apolipoprotein E deficient mice. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2006, 126-127, 285-291.	2.8	7
74	Mechanosensitive Ion Channels in Blood Pressureâ€ Sensing Baroreceptor Neurons. <i>Current Topics in Membranes</i> , 2007, 59, 541-567.	0.9	7
75	Angiotensinâ€ dependent autonomic dysregulation precedes dilated cardiomyopathy in a mouse model of muscular dystrophy. <i>Experimental Physiology</i> , 2015, 100, 776-795.	2.0	6
76	Human papillomavirus (HPV) vaccine and autonomic disorders: a position statement from the American Autonomic Society. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2020, 223, 102550.	2.8	6
77	Modulation of baroreflex function by altering inspiratory impedance: Potential mechanisms and clinical implications. <i>Clinical Autonomic Research</i> , 2004, 14, 217-9.	2.5	4
78	Exciting times in sensory transduction from A(drian) to Z. <i>Journal of Physiology</i> , 2007, 582, 13-14.	2.9	4
79	Contributions of skeletal muscle myopathy to heart failure: novel mechanisms and therapies. <i>Experimental Physiology</i> , 2014, 99, 607-608.	2.0	4
80	Increased cardiac sympathetic activity: Cause or compensation in vasovagal syncope?. <i>Clinical Autonomic Research</i> , 2018, 28, 265-266.	2.5	4
81	The Baroreceptor Reflex: Novel Methods and Mechanisms. , 2004, , 1-29.		4
82	The Continuing Saga of Neuronal Oxidative Stress in Hypertension. <i>Hypertension</i> , 2007, 50, 600-602.	2.7	3
83	Peripheral Chemoreceptors Contribute Significantly to Hypertension in Spontaneously Hypertensive Rats (SHR). <i>FASEB Journal</i> , 2012, 26, 703.15.	0.5	3
84	International student exchange and the medical curriculum: evaluation of a medical sciences translational physiology course in Brazil. <i>American Journal of Physiology - Advances in Physiology Education</i> , 2006, 30, 119-123.	1.6	2
85	Abnormalities in baroreflex sensitivity and autonomic control in conscious ASIC2 â€ mice. <i>FASEB Journal</i> , 2006, 20, A1186.	0.5	2
86	Expression and Localization of Acidâ€ Sensing Ion Channels in Mouse Nodose Ganglia. <i>FASEB Journal</i> , 2006, 20, A775.	0.5	2
87	Circumventricular Organs: Gateways to the Brain Approaches For Gene Delivery To The Subfornical Organ And Magnocellular Neurons. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2001, 28, 602-609.	1.9	1
88	Predicting cardiovascular risk. <i>Clinical Autonomic Research</i> , 2005, 15, 10-12.	2.5	1
89	CIH: from sleep apnea to breath-hold diving. <i>Clinical Autonomic Research</i> , 2010, 20, 53-55.	2.5	1
90	Autocrine/paracrine modulation of baroreceptor activity after antidromic stimulation of aortic depressor nerve in vivo. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2014, 180, 24-31.	2.8	1

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91	Response to: Human papillomavirus (HPV) vaccine safety concerning POTS, CRPS and related conditions. <i>Clinical Autonomic Research</i> , 2020, 30, 183-184.	2.5	1
92	Differential Expression of Acid-Sensing Ion Channel (ASIC) Subunits in Rat Carotid Body. <i>FASEB Journal</i> , 2006, 20, A1230.	0.5	1
93	Erratum to "Mechanosensory transduction of vagal and baroreceptor afferents revealed by study of isolated nodose neurons in culture" [Auton. Neurosci. 98 (2002) 59-63]. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2002, 101, 91.	2.8	0
94	Decreased mRNA expression of ASIC2a in nodose sensory ganglia is associated with development of hypertension in SHR. <i>FASEB Journal</i> , 2007, 21, A1405.	0.5	0
95	Mg <sup>2+</sup> -CURRENT IN NODOSE SENSORY NEURONS MEDIATES THE DEPOLARIZING EFFECT OF PROSTACYCLIN. <i>FASEB Journal</i> , 2007, 21, A1407.	0.5	0
96	Single cell RT-PCR indicates lower ASIC2a mRNA expression in aortic baroreceptor neurons of adult SHR vs WKY rats. <i>FASEB Journal</i> , 2008, 22, 953.6.	0.5	0
97	Selective Sensitization of Transduction pathways in Carotid Body Glomus Cells of Spontaneously Hypertensive Rats (SHR). <i>FASEB Journal</i> , 2009, 23, 1002.4.	0.5	0
98	Differential Sensitivity of Carotid Body Glomus Cells to Hypoxia and Acidosis. <i>FASEB Journal</i> , 2009, 23, 1002.2.	0.5	0
99	A Novel pH Conditioned Cl <sup>-</sup> Conductance in Nodose Ganglia Neurons. <i>FASEB Journal</i> , 2012, 26, 892.7.	0.5	0
100	Endogenous Hydrogen Sulfide in Carotid Bodies Correlates with the Initiation of Hypertension in Spontaneously Hypertensive Rats (SHR). <i>FASEB Journal</i> , 2012, 26, 897.9.	0.5	0
101	Abnormal immune cell populations in SHR hypertension. <i>FASEB Journal</i> , 2013, 27, Ib850.	0.5	0
102	Mechanisms Involved in an Acidic pH-Conditioned NOX-mediated Chloride Conductance in Nodose Sensory Neurons. <i>FASEB Journal</i> , 2013, 27, 913.4.	0.5	0
103	Anoctamins are Determinants of Reduced Cholecystokinin Sensitivity of Vagal Afferents and Impaired Satiety in Obese Mice on High Fat Diet. <i>FASEB Journal</i> , 2015, 29, 806.1.	0.5	0
104	Central Sympathoinhibition Abrogates Angiotensin II-Induced Autonomic Dysregulation, Hypertension and Blood Pressure Variability in Control and Methionine Sulfoxide Reductase-A Deficient Mice. <i>FASEB Journal</i> , 2015, 29, 984.5.	0.5	0
105	TLR3 Activation Preferentially Enhances IL-17F Expression in SHR Immune Cells. <i>FASEB Journal</i> , 2015, 29, 667.2.	0.5	0
106	Cholinergic Stimulation with Nicotine Induces CD68+ Macrophage Infiltration into Kidney and Increases Arterial Pressure in Spontaneously Hypertensive Rats. <i>FASEB Journal</i> , 2015, 29, 957.7.	0.5	0
107	Sexually Dimorphic Ano2 Expression in Nodose Neurons Determines CCK-mediated Satiety and Obesity in Heterozygote Male Mice. <i>FASEB Journal</i> , 2018, 32, .	0.5	0
108	Chemosensitive Cardiac Afferent Reflexes in Mice: Are they Altered in Hypertrophic Cardiomyopathy?. <i>FASEB Journal</i> , 2018, 32, 591.4.	0.5	0

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109	Influence of Early Postnatal Gut Microbiota on Immune System in SHR Hypertension. FASEB Journal, 2019, 33, 692.16.	0.5	0
110	Sensitization of the Cardiac Sympathetic Afferent Reflex Contributes to Increased Sympathetic Tone in a Mouse Model of Hypertrophic Cardiomyopathy. FASEB Journal, 2019, 33, 745.4.	0.5	0
111	Cardiomyocyte-specific deletion of sarcoglycan leads to dilated cardiomyopathy, autonomic dysfunction, and exaggerated stress-induced cardiovascular reactivity. FASEB Journal, 2022, 36, .	0.5	0