

# Ana C Takakura

## List of Publications by Citations

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114  
papers

2,637  
citations

28  
h-index

46  
g-index

135  
ext. papers

3,009  
ext. citations

3.7  
avg, IF

5.11  
L-index

#	Paper	IF	Citations
114	Expression of Phox2b by brainstem neurons involved in chemosensory integration in the adult rat. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 10305-14	6.6	278
113	Peripheral chemoreceptor inputs to retrotrapezoid nucleus (RTN) CO <sub>2</sub> -sensitive neurons in rats. <i>Journal of Physiology</i> , <b>2006</b> , 572, 503-23	3.9	252
112	Serotonergic neurons activate chemosensitive retrotrapezoid nucleus neurons by a pH-independent mechanism. <i>Journal of Neuroscience</i> , <b>2007</b> , 27, 14128-38	6.6	114
111	Selective lesion of retrotrapezoid Phox2b-expressing neurons raises the apnoeic threshold in rats. <i>Journal of Physiology</i> , <b>2008</b> , 586, 2975-91	3.9	112
110	Central chemoreceptors and sympathetic vasomotor outflow. <i>Journal of Physiology</i> , <b>2006</b> , 577, 369-86	3.9	107
109	Central nervous system distribution of the transcription factor Phox2b in the adult rat. <i>Journal of Comparative Neurology</i> , <b>2007</b> , 503, 627-41	3.4	103
108	Regulation of ventral surface CO <sub>2</sub> /H <sup>+</sup> -sensitive neurons by purinergic signalling. <i>Journal of Physiology</i> , <b>2012</b> , 590, 2137-50	3.9	70
107	Inhibitory input from slowly adapting lung stretch receptors to retrotrapezoid nucleus chemoreceptors. <i>Journal of Physiology</i> , <b>2007</b> , 580, 285-300	3.9	63
106	Phox2b-expressing retrotrapezoid neurons and the integration of central and peripheral chemosensory control of breathing in conscious rats. <i>Experimental Physiology</i> , <b>2014</b> , 99, 571-85	2.4	57
105	Anesthetic activation of central respiratory chemoreceptor neurons involves inhibition of a THIK-1-like background K(+) current. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 9324-34	6.6	54
104	Pontomedullary and hypothalamic distribution of Fos-like immunoreactive neurons after acute exercise in rats. <i>Neuroscience</i> , <b>2012</b> , 212, 120-30	3.9	40
103	Galanin is a selective marker of the retrotrapezoid nucleus in rats. <i>Journal of Comparative Neurology</i> , <b>2009</b> , 512, 373-83	3.4	40
102	Ventrolateral medulla mechanisms involved in cardiorespiratory responses to central chemoreceptor activation in rats. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , <b>2011</b> , 300, R501-10	3.2	39
101	Central muscarinic receptors signal pilocarpine-induced salivation. <i>Journal of Dental Research</i> , <b>2003</b> , 82, 993-7	8.1	39
100	GABAergic pump cells of solitary tract nucleus innervate retrotrapezoid nucleus chemoreceptors. <i>Journal of Neurophysiology</i> , <b>2007</b> , 98, 374-81	3.2	38
99	Neuroanatomical and physiological evidence that the retrotrapezoid nucleus/parafacial region regulates expiration in adult rats. <i>Respiratory Physiology and Neurobiology</i> , <b>2016</b> , 227, 9-22	2.8	35
98	Regulation of the chemosensory control of breathing by Klliker-Fuse neurons. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , <b>2014</b> , 307, R57-67	3.2	35

97	Respiratory deficits in a rat model of Parkinson's disease. <i>Neuroscience</i> , <b>2015</b> , 297, 194-204	3.9	34
96	Purinergic signalling contributes to chemoreception in the retrotrapezoid nucleus but not the nucleus of the solitary tract or medullary raphe. <i>Journal of Physiology</i> , <b>2014</b> , 592, 1309-23	3.9	34
95	Acute exercise-induced activation of Phox2b-expressing neurons of the retrotrapezoid nucleus in rats may involve the hypothalamus. <i>Neuroscience</i> , <b>2014</b> , 258, 355-63	3.9	33
94	HCN channels contribute to serotonergic modulation of ventral surface chemosensitive neurons and respiratory activity. <i>Journal of Neurophysiology</i> , <b>2015</b> , 113, 1195-205	3.2	31
93	KCNQ channels determine serotonergic modulation of ventral surface chemoreceptors and respiratory drive. <i>Journal of Neuroscience</i> , <b>2012</b> , 32, 16943-52	6.6	31
92	Respiratory and autonomic dysfunction in congenital central hypoventilation syndrome. <i>Journal of Neurophysiology</i> , <b>2016</b> , 116, 742-52	3.2	31
91	Interaction between the retrotrapezoid nucleus and the parafacial respiratory group to regulate active expiration and sympathetic activity in rats. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2018</b> , 315, L891-L909	5.8	31
90	Role of the locus coeruleus catecholaminergic neurons in the chemosensory control of breathing in a Parkinson's disease model. <i>Experimental Neurology</i> , <b>2017</b> , 293, 172-180	5.7	29
89	Contribution of excitatory amino acid receptors of the retrotrapezoid nucleus to the sympathetic chemoreflex in rats. <i>Experimental Physiology</i> , <b>2011</b> , 96, 989-99	2.4	29
88	Purinergic regulation of vascular tone in the retrotrapezoid nucleus is specialized to support the drive to breathe. <i>ELife</i> , <b>2017</b> , 6,	8.9	29
87	Antihypertensive effects of central ablations in spontaneously hypertensive rats. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , <b>2009</b> , 296, R1797-806	3.2	28
86	Activation of 5-hydroxytryptamine type 3 receptor-expressing C-fiber vagal afferents inhibits retrotrapezoid nucleus chemoreceptors in rats. <i>Journal of Neurophysiology</i> , <b>2007</b> , 98, 3627-37	3.2	28
85	The involvement of the pathway connecting the substantia nigra, the periaqueductal gray matter and the retrotrapezoid nucleus in breathing control in a rat model of Parkinson's disease. <i>Experimental Neurology</i> , <b>2018</b> , 302, 46-56	5.7	25
84	Cardiovascular dysfunction associated with neurodegeneration in an experimental model of Parkinson's disease. <i>Brain Research</i> , <b>2017</b> , 1657, 156-166	3.7	24
83	Inhibition of the pontine K <sub>ik</sub> -Fuse nucleus reduces genioglossal activity elicited by stimulation of the retrotrapezoid chemoreceptor neurons. <i>Neuroscience</i> , <b>2016</b> , 328, 9-21	3.9	24
82	P2Y1 receptors expressed by C1 neurons determine peripheral chemoreceptor modulation of breathing, sympathetic activity, and blood pressure. <i>Hypertension</i> , <b>2013</b> , 62, 263-73	8.5	24
81	Control of the central chemoreflex by A5 noradrenergic neurons in rats. <i>Neuroscience</i> , <b>2011</b> , 199, 177-86	3.9	24
80	α- and β-adrenergic receptors in the retrotrapezoid nucleus differentially regulate breathing in anesthetized adult rats. <i>Journal of Neurophysiology</i> , <b>2016</b> , 116, 1036-48	3.2	23

79	Depletion of rostral ventrolateral medullary catecholaminergic neurons impairs the hypoxic ventilatory response in conscious rats. <i>Neuroscience</i> , <b>2017</b> , 351, 1-14	3.9	21
78	Correlation between neuroanatomical and functional respiratory changes observed in an experimental model of Parkinson's disease. <i>Experimental Physiology</i> , <b>2018</b> , 103, 1377-1389	2.4	20
77	Central blockade of nitric oxide synthesis reduces moxonidine-induced hypotension. <i>British Journal of Pharmacology</i> , <b>2004</b> , 142, 765-71	8.6	20
76	Chemosensory control by commissural nucleus of the solitary tract in rats. <i>Respiratory Physiology and Neurobiology</i> , <b>2011</b> , 179, 227-34	2.8	19
75	Inhibition of pilocarpine-induced salivation in rats by central noradrenaline. <i>Archives of Oral Biology</i> , <b>2002</b> , 47, 429-34	2.8	18
74	Impaired central respiratory chemoreflex in an experimental genetic model of epilepsy. <i>Journal of Physiology</i> , <b>2017</b> , 595, 983-999	3.9	17
73	Acute hypoxia activates hypothalamic paraventricular nucleus-projecting catecholaminergic neurons in the C1 region. <i>Experimental Neurology</i> , <b>2016</b> , 285, 1-11	5.7	16
72	Control of breathing and blood pressure by parafacial neurons in conscious rats. <i>Experimental Physiology</i> , <b>2013</b> , 98, 304-15	2.4	16
71	Fluorocitrate-mediated depolarization of astrocytes in the retrotrapezoid nucleus stimulates breathing. <i>Journal of Neurophysiology</i> , <b>2017</b> , 118, 1690-1697	3.2	16
70	Central moxonidine on salivary gland blood flow and cardiovascular responses to pilocarpine. <i>Brain Research</i> , <b>2003</b> , 987, 155-63	3.7	16
69	Role of pressor mechanisms from the NTS and CVLM in control of arterial pressure. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , <b>2005</b> , 289, R1416-25	3.2	16
68	Ablation of brainstem C1 neurons improves cardiac function in volume overload heart failure. <i>Clinical Science</i> , <b>2019</b> , 133, 393-405	6.5	16
67	The role of PHOX2B-derived astrocytes in chemosensory control of breathing and sleep homeostasis. <i>Journal of Physiology</i> , <b>2019</b> , 597, 2225-2251	3.9	15
66	Orexinergic neurons are involved in the chemosensory control of breathing during the dark phase in a Parkinson's disease model. <i>Experimental Neurology</i> , <b>2018</b> , 309, 107-118	5.7	15
65	Effects of AV3V lesion on pilocarpine-induced pressor response and salivary gland vasodilation. <i>Brain Research</i> , <b>2005</b> , 1055, 111-21	3.7	15
64	Purinergic receptor blockade in the retrotrapezoid nucleus attenuates the respiratory chemoreflexes in awake rats. <i>Acta Physiologica</i> , <b>2016</b> , 217, 80-93	5.6	14
63	Minocycline alters expression of inflammatory markers in autonomic brain areas and ventilatory responses induced by acute hypoxia. <i>Experimental Physiology</i> , <b>2018</b> , 103, 884-895	2.4	13
62	Breathing responses produced by optogenetic stimulation of adrenergic C1 neurons are dependent on the connection with preBötzinger complex in rats. <i>Pflügers Archiv European Journal of Physiology</i> , <b>2018</b> , 470, 1659-1672	4.6	13

61	Distinct pathways to the parafacial respiratory group to trigger active expiration in adult rats. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2019</b> , 317, L402-L413	5.8	13
60	Commissural nucleus of the solitary tract regulates the antihypertensive effects elicited by moxonidine. <i>Neuroscience</i> , <b>2013</b> , 250, 80-91	3.9	13
59	In vitro characterization of noradrenergic modulation of chemosensitive neurons in the retrotrapezoid nucleus. <i>Journal of Neurophysiology</i> , <b>2016</b> , 116, 1024-35	3.2	13
58	Respiratory disturbances in a mouse model of Parkinson's disease. <i>Experimental Physiology</i> , <b>2019</b> , 104, 729-739	2.4	13
57	Role of A5 noradrenergic neurons in the chemoreflex control of respiratory and sympathetic activities in unanesthetized conditions. <i>Neuroscience</i> , <b>2017</b> , 354, 146-157	3.9	12
56	Cholinergic neurons in the pedunculopontine tegmental nucleus modulate breathing in rats by direct projections to the retrotrapezoid nucleus. <i>Journal of Physiology</i> , <b>2019</b> , 597, 1919-1934	3.9	12
55	Arterial chemoreceptor activation reduces the activity of parapyramidal serotonergic neurons in rats. <i>Neuroscience</i> , <b>2013</b> , 237, 199-207	3.9	12
54	Central alpha(2) adrenergic receptors and cholinergic-induced salivation in rats. <i>Brain Research Bulletin</i> , <b>2003</b> , 59, 383-6	3.9	12
53	C1 neurons are part of the circuitry that recruits active expiration in response to the activation of peripheral chemoreceptors. <i>ELife</i> , <b>2020</b> , 9,	8.9	12
52	Inhibition of the hypercapnic ventilatory response by adenosine in the retrotrapezoid nucleus in awake rats. <i>Neuropharmacology</i> , <b>2018</b> , 138, 47-56	5.5	12
51	Area postrema undergoes dynamic postnatal changes in mice and humans. <i>Journal of Comparative Neurology</i> , <b>2016</b> , 524, 1259-69	3.4	11
50	Vascular control of the CO <sub>2</sub> /H-dependent drive to breathe. <i>ELife</i> , <b>2020</b> , 9,	8.9	11
49	Brainstem areas activated by intermittent apnea in awake unrestrained rats. <i>Neuroscience</i> , <b>2015</b> , 297, 262-71	3.9	10
48	Respiratory and sympathetic chemoreflex regulation by K <sub>1</sub> liver-Fuse neurons in rats. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2015</b> , 467, 231-9	4.6	10
47	Moxonidine reduces pilocarpine-induced salivation in rats. <i>Autonomic Neuroscience: Basic and Clinical</i> , <b>2001</b> , 91, 32-6	2.4	10
46	Rostral ventrolateral medullary catecholaminergic neurones mediate irregular breathing pattern in volume overload heart failure rats. <i>Journal of Physiology</i> , <b>2019</b> , 597, 5799-5820	3.9	9
45	Activation of alpha(2)-adrenoceptors in the lateral hypothalamus reduces pilocarpine-induced salivation in rats. <i>Neuroscience Letters</i> , <b>2009</b> , 450, 225-8	3.3	9
44	Involvement of central alpha1- and alpha2-adrenoceptors on cardiovascular responses to moxonidine. <i>European Journal of Pharmacology</i> , <b>2007</b> , 563, 164-71	5.3	9

43	Episodic stimulation of central chemoreceptor neurons elicits disordered breathing and autonomic dysfunction in volume overload heart failure. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , <b>2020</b> , 318, L27-L40	5.8	9
42	Amygdala rapid kindling impairs breathing in response to chemoreflex activation. <i>Brain Research</i> , <b>2019</b> , 1718, 159-168	3.7	8
41	Independent purinergic mechanisms of central and peripheral chemoreception in the rostral ventrolateral medulla. <i>Journal of Physiology</i> , <b>2015</b> , 593, 1067-74	3.9	8
40	Antihypertensive responses elicited by central moxonidine in rats: possible role of nitric oxide. <i>Journal of Cardiovascular Pharmacology</i> , <b>2006</b> , 47, 780-7	3.1	8
39	Neonatal apneic phenotype in a murine congenital central hypoventilation syndrome model is induced through non-cell autonomous developmental mechanisms. <i>Brain Pathology</i> , <b>2021</b> , 31, 84-102	6	8
38	Raphe Pallidus is Not Important to Central Chemoreception in a Rat Model of Parkinson's Disease. <i>Neuroscience</i> , <b>2018</b> , 369, 350-362	3.9	8
37	Molecular underpinnings of ventral surface chemoreceptor function: focus on KCNQ channels. <i>Journal of Physiology</i> , <b>2015</b> , 593, 1075-81	3.9	7
36	Important GABAergic mechanism within the NTS and the control of sympathetic baroreflex in SHR. <i>Autonomic Neuroscience: Basic and Clinical</i> , <b>2011</b> , 159, 62-70	2.4	7
35	Baroreflex dysfunction in Parkinson's disease: integration of central and peripheral mechanisms. <i>Journal of Neurophysiology</i> , <b>2021</b> , 125, 1425-1439	3.2	7
34	Impaired chemosensory control of breathing after depletion of bulbospinal catecholaminergic neurons in rats. <i>Pflügers Archiv European Journal of Physiology</i> , <b>2018</b> , 470, 277-293	4.6	6
33	Commissural nucleus of the solitary tract is important for cardiovascular responses to caudal pressor area activation. <i>Brain Research</i> , <b>2007</b> , 1161, 32-7	3.7	6
32	Depletion of hypothalamic hypocretin/orexin neurons correlates with impaired memory in a Parkinson's disease animal model. <i>Experimental Neurology</i> , <b>2020</b> , 323, 113110	5.7	6
31	GABAergic neurons of the medullary raphe regulate active expiration during hypercapnia. <i>Journal of Neurophysiology</i> , <b>2020</b> , 123, 1933-1943	3.2	6
30	The retrotrapezoid nucleus and the neuromodulation of breathing. <i>Journal of Neurophysiology</i> , <b>2021</b> , 125, 699-719	3.2	6
29	Attenuated baroreflex in a Parkinson's disease animal model coincides with impaired activation of non-C1 neurons. <i>Autonomic Neuroscience: Basic and Clinical</i> , <b>2020</b> , 225, 102655	2.4	5
28	GABA mechanisms of the nucleus of the solitary tract regulates the cardiovascular and sympathetic effects of moxonidine. <i>Autonomic Neuroscience: Basic and Clinical</i> , <b>2016</b> , 194, 1-7	2.4	5
27	Oxidative stress in the medullary respiratory neurons contributes to respiratory dysfunction in the 6-OHDA model of Parkinson's disease. <i>Journal of Physiology</i> , <b>2020</b> , 598, 5271-5293	3.9	5
26	The retrotrapezoid nucleus as a central brainstem area for central and peripheral chemoreceptor interactions. <i>Experimental Physiology</i> , <b>2016</b> , 101, 455-6	2.4	5

25	Activation of central $\alpha$ -adrenoceptors mediates salivary gland vasoconstriction. <i>Archives of Oral Biology</i> , <b>2013</b> , 58, 167-73	2.8	4
24	Central mechanisms involved in pilocarpine-induced pressor response. <i>Autonomic Neuroscience: Basic and Clinical</i> , <b>2011</b> , 164, 34-42	2.4	4
23	Unraveling the Mechanisms Underlying Irregularities in Inspiratory Rhythm Generation in a Mouse Model of Parkinson's Disease. <i>Journal of Neuroscience</i> , <b>2021</b> , 41, 4732-4747	6.6	4
22	Stimulation of retrotrapezoid nucleus Phox2b-expressing neurons rescues breathing dysfunction in an experimental Parkinson's disease rat model. <i>Brain Pathology</i> , <b>2020</b> , 30, 926-944	6	3
21	M4-muscarinic acetylcholine receptor into the pedunculo pontine tegmental nucleus mediates respiratory modulation of conscious rats. <i>Respiratory Physiology and Neurobiology</i> , <b>2019</b> , 269, 103254	2.8	3
20	Hypertension and sympathetic nervous system overactivity rely on the vascular tone of pial vessels of the rostral ventrolateral medulla in spontaneously hypertensive rats. <i>Experimental Physiology</i> , <b>2020</b> , 105, 65-74	2.4	3
19	Respiratory disorders of Parkinson's Disease. <i>Journal of Neurophysiology</i> , <b>2021</b> ,	3.2	2
18	Pilocarpine-induced status epilepticus reduces chemosensory control of breathing. <i>Brain Research Bulletin</i> , <b>2020</b> , 161, 98-105	3.9	2
17	Forebrain and Hindbrain Projecting-neurons Target the Post-inspiratory Complex Cholinergic Neurons. <i>Neuroscience</i> , <b>2021</b> , 476, 102-115	3.9	2
16	Selective inhibition of the adrenergic C1 neurons reduces the hypoxic ventilatory response in unanesthetized rats. <i>FASEB Journal</i> , <b>2015</b> , 29, 652.24	0.9	1
15	Machine learning approaches reveal subtle differences in breathing and sleep fragmentation in -derived astrocytes ablated mice. <i>Journal of Neurophysiology</i> , <b>2021</b> , 125, 1164-1179	3.2	1
14	Excitatory and inhibitory modulation of parafacial respiratory neurons in the control of active expiration. <i>Respiratory Physiology and Neurobiology</i> , <b>2021</b> , 289, 103657	2.8	1
13	Medullary astrocytes mediate irregular breathing patterns generation in chronic heart failure through purinergic P2X7 receptor signalling.. <i>EBioMedicine</i> , <b>2022</b> , 80, 104044	8.8	0
12	Is carotid body input the only critical mechanism involved in hypertension in spontaneously hypertensive rat?. <i>Journal of Physiology</i> , <b>2013</b> , 591, 745-6	3.9	
11	Central and Peripheral Respiratory Disturbances in a Mice Model of Parkinson's Disease. <i>FASEB Journal</i> , <b>2018</b> , 32, 894.9	0.9	
10	Selective Depletion of Astrocytes Derived From a Phox2b-Progenitor Domain Reduces Hypoxia Ventilatory Response in Conscious Mice. <i>FASEB Journal</i> , <b>2018</b> , 32, 894.7	0.9	
9	Effects of bilateral inhibition of retrotrapezoid nucleus on breathing in conscious rats. <i>FASEB Journal</i> , <b>2010</b> , 24, 1026.9	0.9	
8	Changes on respiratory chemosensitivity after vagotomy in rats. <i>FASEB Journal</i> , <b>2010</b> , 24, 1026.11	0.9	



- 7 Contribution of excitatory amino acid receptors of the retrotrapezoid nucleus to sympathetic chemoreflex in rats. *FASEB Journal*, **2011**, 25, 1076.9 0.9
- 6 Role of the A5 noradrenergic neurons in the control of central chemoreflex in rats. *FASEB Journal*, **2011**, 25, 1076.7 0.9
- 5 Brainstem areas activated by intermittent apnea in awake unrestrained rats. *FASEB Journal*, **2012**, 26, 899.6 0.9
- 4 Purinergic signaling in the retrotrapezoid nucleus (RTN) contributes to central and peripheral chemoreflexes by divergent mechanisms. *FASEB Journal*, **2013**, 27, 1137.15 0.9
- 3 HCN channels contribute to serotonergic modulation of chemoreceptors in the retrotrapezoid nucleus. *FASEB Journal*, **2013**, 27, 1214.11 0.9
- 2 Chemosensory control by purinergic signaling within the retrotrapezoid nucleus (RTN) in conscious rats. *FASEB Journal*, **2013**, 27, 1137.14 0.9
- 1 Bezinger inhibitory neurons and the control of active expiration. *Journal of Physiology*, **2021**, 599, 1945-1947 0.9