Barry J Sessle

List of Publications by Year
in descending order

87 papers	4,407 citations	109321 35 h-index	118850 62 g-index
133 all docs	133 docs citations	133 times ranked	2554 citing authors

#	Article	IF	Citations
1	Astrocytes in the rostral ventromedial medulla contribute to the maintenance of oroâ€facial hyperalgesia induced by late removal of dental occlusal interference. Journal of Oral Rehabilitation, 2022, 49, 207-218.	3.0	5
2	Botulinum toxin promotes orofacial antinociception by modulating TRPV1 and NMDA receptors in adult zebrafish. Toxicon, 2022, 210, 158-166.	1.6	5
3	Chronic Orofacial Pain: Models, Mechanisms, and Genetic and Related Environmental Influences. International Journal of Molecular Sciences, 2021, 22, 7112.	4.1	43
4	Responses of neurons in rostral ventromedial medulla to nociceptive stimulation of craniofacial region and tail in rats. Brain Research, 2021, 1767, 147539.	2.2	7
5	The Canadian Pain Society: A historical perspective. Canadian Journal of Pain, 2020, 4, 247-251.	1.7	0
6	NMDA and purinergic processes modulate neck muscle activity evoked by noxious stimulation of dura. Journal of Oral Pathology and Medicine, 2020, 49, 547-554.	2.7	2
7	Toll-Like Receptor 4 in the Rat Caudal Medulla Mediates Tooth Pulp Inflammatory Pain. Frontiers in Neuroscience, 2020, 14, 643.	2.8	3
8	Dental sleep medicine: Time to incorporate sleep apnoea education in the dental curriculum. European Journal of Dental Education, 2020, 24, 605-610.	2.0	13
9	Properties of heat-sensitive neurons in the premotor cortex of conscious monkeys. Journal of Oral Science, 2020, 62, 382-386.	1.7	0
10	Dental Pain Mechanisms. , 2020, , 550-570.		0
11	Combination of jaw and tongue movement training influences neuroplasticity of corticomotor pathways in humans. Experimental Brain Research, 2019, 237, 2559-2571.	1.5	6
12	Tooth extraction and subsequent dental implant placement in Sprague-Dawley rats induce differential changes in anterior digastric myofibre size and myosin heavy chain isoform expression. Archives of Oral Biology, 2019, 99, 141-149.	1.8	4
13	Can you be too old for oral implants? An update on ageing and plasticity in the oroâ€facial sensorimotor system. Journal of Oral Rehabilitation, 2019, 46, 936-951.	3.0	13
14	(â^')-Î±-Bisabolol reduces nociception and trigeminal central sensitisation in acute orofacial neuropathic pain induced by infraorbital nerve injury. Life Sciences, 2019, 227, 122-128.	4.3	13
15	Face sensorimotor cortex undergoes neuroplastic changes in a rat model of trigeminal neuropathic pain. Experimental Brain Research, 2018, 236, 1357-1368.	1.5	5
16	Jaw sensorimotor control in healthy adults and effects of ageing. Journal of Oral Rehabilitation, 2018, 45, 50-80.	3.0	58
17	Mechanisms of craniofacial pain. Cephalalgia, 2017, 37, 613-626.	3.9	101
18	Sagittal Plane Kinematics of the Jaw and Hyolingual Apparatus During Swallowing in Macaca mulatta. Dysphagia, 2017, 32, 663-677.	1.8	13

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19	ERK-GluR1 phosphorylation in trigeminal spinal subnucleus caudalis neurons is involved in pain associated with dry tongue. Molecular Pain, 2016, 12, 174480691664168.	2.1	13
20	Similarity in Neuronal Firing Regimes across Mammalian Species. Journal of Neuroscience, 2016, 36, 5736-5747.	3.6	78
21	Primary motor and sensory cortical areas communicate via spatiotemporally coordinated networks at multiple frequencies. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5083-5088.	7.1	78
22	Decreased face primary motor cortex (face-M1) excitability induced by noxious stimulation of the rat molar tooth pulp is dependent on the functional integrity of medullary astrocytes. Experimental Brain Research, 2016, 234, 645-657.	1.5	7
23	Widespread Volumetric Brain Changes following Tooth Loss in Female Mice. Frontiers in Neuroanatomy, 2016, 10, 121.	1.7	25
24	Repeated tongue lift movement induces neuroplasticity in corticomotor control of tongue and jaw muscles in humans. Brain Research, 2015, 1627, 70-79.	2.2	46
25	Neuroplastic changes in the sensorimotor cortex associated with orthodontic tooth movement in rats. Journal of Comparative Neurology, 2015, 523, 1548-1568.	1.6	19
26	Decreased face primary motor cortex (face-M1) excitability induced by noxious stimulation of the rat molar tooth pulp is dependent on the functional integrity of face-M1 astrocytes. Experimental Brain Research, 2015, 233, 1261-1272.	1.5	8
27	Involvement of medullary GABAergic system in extraterritorial neuropathic pain mechanisms associated with inferior alveolar nerve transection. Experimental Neurology, 2015, 267, 42-52.	4.1	34
28	Longâ€term neuroplasticity of the face primary motor cortex and adjacent somatosensory cortex induced by tooth loss can be reversed following dental implant replacement in rats. Journal of Comparative Neurology, 2015, 523, 2372-2389.	1.6	29
29	Dental Occlusal Changes Induce Motor Cortex Neuroplasticity. Journal of Dental Research, 2015, 94, 1757-1764.	5.2	33
30	Modulation Dynamics in the Orofacial Sensorimotor Cortex during Motor Skill Acquisition. Journal of Neuroscience, 2014, 34, 5985-5997.	3.6	46
31	Features of cortical neuroplasticity associated with multidirectional novel motor skill training: a TMS mapping study. Experimental Brain Research, 2013, 225, 513-526.	1.5	30
32	Systemic pregabalin attenuates facial hypersensitivity and noxious stimulus-evoked release of glutamate in medullary dorsal horn in a rodent model of trigeminal neuropathic pain. Neurochemistry International, 2013, 62, 831-835.	3.8	24
33	The Pain Crisis: What It Is and What Can Be Done. Pain Research and Treatment, 2012, 2012, 1-6.	1.7	39
34	Involvement of ATP in noxious stimulus-evoked release of glutamate in rat medullary dorsal horn: A microdialysis study. Neurochemistry International, 2012, 61, 1276-1279.	3.8	7
35	Activation of peripheral P2X receptors is sufficient to induce central sensitization in rat medullary dorsal horn nociceptive neurons. Neuroscience Letters, 2012, 526, 160-163.	2.1	14
36	Face sensorimotor cortex. Progress in Brain Research, 2011, 188, 71-82.	1.4	39

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37	Face sensorimotor cortex neuroplasticity associated with intraoral alterations. Progress in Brain Research, 2011, 188, 135-150.	1.4	13
38	Peripheral and central mechanisms of orofacial inflammatory pain. International Review of Neurobiology, 2011, 97, 179-206.	2.0	171
39	Unrelieved Pain: A Crisis. Pain Research and Management, 2011, 16, 416-420.	1.8	37
40	Face sensorimotor cortex and its neuroplasticity related to orofacial sensorimotor functions. Archives of Oral Biology, 2011, 56, 1440-1465.	1.8	138
41	Corticomotor plasticity induced by tongue-task training in humans: a longitudinal fMRI study. Experimental Brain Research, 2011, 212, 199-212.	1.5	41
42	Interview: Pain management challenges: research, access, costs, education and public awareness. Pain Management, 2011, 1, 25-29.	1.5	0
43	Effects of incisor extraction on jaw and tongue motor representations within face sensorimotor cortex of adult rats. Journal of Comparative Neurology, 2010, 518, 1030-1045.	1.6	52
44	Neuroplasticity of face sensorimotor cortex and implications for control of orofacial movements. Japanese Dental Science Review, 2010, 46, 132-142.	5.1	6
45	Cortical Orofacial Motor Representation. Journal of Dental Research, 2010, 89, 1142-1147.	5.2	21
46	Why are the diagnosis and management of orofacial pain so challenging?. Journal of the Canadian Dental Association, 2009, 75, 275-7.	0.6	6
47	Effects of experimental pain on jaw muscle activity during goal-directed jaw movements in humans. Experimental Brain Research, 2008, 189, 451-462.	1.5	35
48	Motor cortex neuroplasticity associated with lingual nerve injury in rats. Somatosensory & Motor Research, 2007, 24, 97-109.	0.9	37
49	The effects of intra-oral pain on motor cortex neuroplasticity associated with short-term novel tongue-protrusion training in humans. Pain, 2007, 132, 169-178.	4.2	124
50	Neuroplasticity of face primary motor cortex control of orofacial movements. Archives of Oral Biology, 2007, 52, 334-337.	1.8	83
51	Central sensitization induced in thalamic nociceptive neurons by tooth pulp stimulation is dependent on the functional integrity of trigeminal brainstem subnucleus caudalis but not subnucleus oralis. Brain Research, 2006, 1112, 134-145.	2.2	25
52	Properties and plasticity of the primate somatosensory and motor cortex related to orofacial sensorimotor function. Clinical and Experimental Pharmacology and Physiology, 2005, 32, 109-114.	1.9	85
53	Mechanoreceptive field and response properties of nociceptive neurons in ventral posteromedial thalamic nucleus of the rat. Thalamus & Related Systems, 2005, 3, 41.	0.5	3
54	Biological adaptation and normative values. International Journal of Prosthodontics, 2005, 18, 280-2.	1.7	8

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55	Plasticity in corticomotor control of the human tongue musculature induced by tongue-task training. Experimental Brain Research, 2003, 152, 42-51.	1.5	134
56	Activation of Peripheral NMDA Receptors Contributes to Human Pain and Rat Afferent Discharges Evoked by Injection of Glutamate into the Masseter Muscle. Journal of Neurophysiology, 2003, 90, 2098-2105.	1.8	206
57	Biological adaptation and normative values. International Journal of Prosthodontics, 2003, 16 Suppl, 72-3; discussion 89-90.	1.7	1
58	Recent Insights into Brainstem Mechanisms Underlying Craniofacial Pain. Journal of Dental Education, 2002, 66, 108-112.	1.2	26
59	Contribution of plasticity of sensorimotor cerebral cortex to development of communication skills. Behavioral and Brain Sciences, 2002, 25, 638-639.	0.7	3
60	Effects on mastication of reversible bilateral inactivation of the lateral pericentral cortex in the monkey (Macaca fascicularis). Archives of Oral Biology, 2002, 47, 673-688.	1.8	61
61	Effects of reversible bilateral inactivation of face primary motor cortex on mastication and swallowing. Brain Research, 2002, 944, 40-55.	2.2	88
62	Integration of basic sciences into the predoctoral curriculum to study temporomandibular disorders and orofacial pain. Journal of Orofacial Pain, 2002, 16, 181-4.	1.7	8
63	Recent insights into brainstem mechanisms underlying craniofacial pain. Journal of Dental Education, 2002, 66, 108-12.	1.2	11
64	Neuroplasticity Induced by Tooth Pulp Stimulation in Trigeminal Subnucleus Oralis Involves NMDA Receptor Mechanisms. Journal of Neurophysiology, 2001, 85, 1836-1846.	1.8	47
65	Characteristics of Glutamate-Evoked Temporomandibular Joint Afferent Activity in the Rat. Journal of Neurophysiology, 2001, 85, 2446-2454.	1.8	75
66	Sensory and Motor Functions of Face Primary Somatosensory Cortex in The Primate. , 2001, , 113-130.		4
67	Acute and Chronic Craniofacial Pain: Brainstem Mechanisms of Nociceptive Transmission and Neuroplasticity, and Their Clinical Correlates. Critical Reviews in Oral Biology and Medicine, 2000, 11, 57-91.	4.4	561
68	Effects of GABA Receptor Antagonist on Trigeminal Caudalis Nociceptive Neurons in Normal and Neonatally Capsaicin-Treated Rats. Journal of Neurophysiology, 1999, 82, 2154-2162.	1.8	23
69	Activation of Peripheral GABA_A Receptors Inhibits Temporomandibular Jointâ€“Evoked Jaw Muscle Activity. Journal of Neurophysiology, 1999, 81, 1966-1969.	1.8	41
70	Features of Cortically Evoked Swallowing in the Awake Primate (Macaca fascicularis). Journal of Neurophysiology, 1999, 82, 1529-1541.	1.8	143
71	Brainstem Mechanisms Underlying Temporomandibular Joint and Masticatory Muscle Pain. Journal of Musculoskeletal Pain, 1999, 7, 161-169.	0.3	12
72	Neural Mechanisms and Pathways in Craniofacial Pain. Canadian Journal of Neurological Sciences, 1999, 26, 7-11.	0.5	83

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73	Central distribution of synaptic contacts of primary and secondary jaw muscle spindle afferents in the trigeminal motor nucleus of the cat. Journal of Comparative Neurology, 1998, 391, 50-63.	1.6	45
74	NMDA Receptor Mechanisms Contribute to Neuroplasticity Induced in Caudalis Nociceptive Neurons by Tooth Pulp Stimulation. Journal of Neurophysiology, 1998, 80, 2621-2631.	1.8	119
75	Recent evidence of the involvement of lateral frontal cortex in primate cyclic ingestive movements. Behavioral and Brain Sciences, 1998, 21, 529-530.	0.7	0
76	Functional Properties of Neurons in the Primate Tongue Primary Motor Cortex During Swallowing. Journal of Neurophysiology, 1997, 78, 1516-1530.	1.8	156
77	NMDA Receptor Involvement in Neuroplastic Changes Induced By Neonatal Capsaicin Treatment in Trigeminal Nociceptive Neurons. Journal of Neurophysiology, 1997, 78, 2799-2803.	1.8	48
78	Central excitation and inhibitory mechanisms and neuroplasticity are also manifested in trigeminal nociceptive pathways. Behavioral and Brain Sciences, 1997, 20, 453-454.	0.7	0
79	Central Projections of Identified Trigeminal Primary Afferents after Molar Pulp Deafferentation in Adult Rats. Somatosensory & Motor Research, 1995, 12, 277-297.	0.9	11
80	Two major types of premotoneurons in the feline trigeminal nucleus oralis as demonstrated by intracellular staining with horseradish peroxidase. Journal of Comparative Neurology, 1994, 347, 495-514.	1.6	65
81	Trigeminal projections to the nucleus submedius of the thalamus in the rat. Journal of Comparative Neurology, 1991, 307, 609-625.	1.6	152
82	Neural mechanisms of swallowing: Neurophysiological and neurochemical studies on brain stem neurons in the solitary tract region. Dysphagia, 1989, 4, 61-75.	1.8	55
83	Oro-Facial Pain Mechanism. The Journal of the Kyushu Dental Society, 1984, 38, 948-967.	0.0	0
84	Raphe-induced suppression of the jaw-opening reflex and single neurons in trigeminal subnucleus oralis, and influence of naloxone and subnucleus caudalis. Pain, 1981, 10, 19-36.	4.2	118
85	Primary afferent depolarisation of tooth pulp afferents is not affected by naloxone. Nature, 1978, 276, 283-284.	27.8	27
86	The Neural Basis of Oral and Facial Function. , 1978, , .		333
87	Role of Peripheral Mechanisms in Craniofacial Pain Conditions. , 0, , 1-20.		4