Yun Guan

List of Publications by Year
in descending order

104 papers	5,668 citations	117625 34 h-index	85541 71 g-index
111 all docs	111 docs citations	111 times ranked	5560 citing authors

#	Article	IF	Citations
1	Sensory Neuron-Specific GPCR Mrgprs Are Itch Receptors Mediating Chloroquine-Induced Pruritus. Cell, 2009, 139, 1353-1365.	28.9	681
2	A subpopulation of nociceptors specifically linked to itch. Nature Neuroscience, 2013, 16, 174-182.	14.8	477
3	Injury-induced mechanical hypersensitivity requires C-low threshold mechanoreceptors. Nature, 2009, 462, 651-655.	27.8	392
4	Subchondral bone osteoclasts induce sensory innervation and osteoarthritis pain. Journal of Clinical Investigation, 2019, 129, 1076-1093.	8.2	239
5	Spinal Cord Stimulation: Clinical Efficacy and Potential Mechanisms. Pain Practice, 2018, 18, 1048-1067.	1.9	225
6	Coupled Activation of Primary Sensory Neurons Contributes to Chronic Pain. Neuron, 2016, 91, 1085-1096.	8.1	216
7	TRP Vanilloid 2 Knock-Out Mice Are Susceptible to Perinatal Lethality But Display Normal Thermal and Mechanical Nociception. Journal of Neuroscience, 2011, 31, 11425-11436.	3.6	193
8	Parameters of Spinal Cord Stimulation and Their Role in Electrical Charge Delivery: A Review. Neuromodulation, 2016, 19, 373-384.	0.8	171
9	Conventional and Kilohertz-frequency Spinal Cord Stimulation Produces Intensity- and Frequency-dependent Inhibition of Mechanical Hypersensitivity in a Rat Model of Neuropathic Pain. Anesthesiology, 2013, 119, 422-432.	2.5	160
10	Spinal Cord Stimulation-induced Analgesia. Anesthesiology, 2010, 113, 1392-1405.	2.5	154
11	Prostaglandin E2 mediates sensory nerve regulation of bone homeostasis. Nature Communications, 2019, 10, 181.	12.8	152
12	Tmem100 Is a Regulator of TRPA1-TRPV1 Complex and Contributes to Persistent Pain. Neuron, 2015, 85, 833-846.	8.1	143
13	Leaky Gate Model: Intensity-Dependent Coding of Pain and Itch in the Spinal Cord. Neuron, 2017, 93, 840-853.e5.	8.1	131
14	Spinal Cord Stimulation: Neurophysiological and Neurochemical Mechanisms of Action. Current Pain and Headache Reports, 2012, 16, 217-225.	2.9	113
15	Peripherally acting mu-opioid receptor agonist attenuates neuropathic pain in rats after L5 spinal nerve injury. Pain, 2008, 138, 318-329.	4.2	105
16	Genetic Knockout and Pharmacologic Inhibition of Neuronal Nitric Oxide Synthase Attenuate Nerve Injury-Induced Mechanical Hypersensitivity in Mice. Molecular Pain, 2007, 3, 1744-8069-3-29.	2.1	93
17	Spinal Cord Stimulation for Treating Chronic Pain: Reviewing Preclinical and Clinical Data on Paresthesia-Free High-Frequency Therapy. Neuromodulation, 2018, 21, 10-18.	0.8	85
18	Mas-related G-proteinâ€“coupled receptors inhibit pathological pain in mice. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15933-15938.	7.1	74

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19	Modulating the delicate glialâ€“neuronal interactions in neuropathic pain: Promises and potential caveats. Neuroscience and Biobehavioral Reviews, 2014, 45, 19-27.	6.1	74
20	Sensory innervation in porous endplates by Netrin-1 from osteoclasts mediates PGE2-induced spinal hypersensitivity in mice. Nature Communications, 2019, 10, 5643.	12.8	72
21	Windup in Dorsal Horn Neurons Is Modulated by Endogenous Spinal Â-Opioid Mechanisms. Journal of Neuroscience, 2006, 26, 4298-4307.	3.6	65
22	Electrical stimulation of low-threshold afferent fibers induces a prolonged synaptic depression in lamina II dorsal horn neurons to high-threshold afferent inputs in mice. Pain, 2015, 156, 1008-1017.	4.2	63
23	Dynamic temporal and spatial regulation of mu opioid receptor expression in primary afferent neurons following spinal nerve injury. European Journal of Pain, 2011, 15, 669-675.	2.8	56
24	Targeting human Mas-related G protein-coupled receptor X1 to inhibit persistent pain. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1996-E2005.	7.1	53
25	Sex differences in gene regulation in the dorsal root ganglion after nerve injury. BMC Genomics, 2019, 20, 147.	2.8	53
26	Activation of cannabinoid CB1 receptor contributes to suppression of spinal nociceptive transmission and inhibition of mechanical hypersensitivity by AÎ²-fiber stimulation. Pain, 2016, 157, 2582-2593.	4.2	50
27	Cellular and molecular mechanisms driving neuropathic pain: recent advancements and challenges. Expert Opinion on Therapeutic Targets, 2018, 22, 131-142.	3.4	50
28	Bipolar spinal cord stimulation attenuates mechanical hypersensitivity at an intensity that activates a small portion of A-fiber afferents in spinal nerve-injured rats. Neuroscience, 2011, 199, 470-480.	2.3	48
29	Monocarboxylate transporter 1 in Schwann cells contributes to maintenance of sensory nerve myelination during aging. Glia, 2020, 68, 161-177.	4.9	46
30	Supraspinal Mechanisms of Spinal Cord Stimulation for Modulation of Pain. Anesthesiology, 2019, 130, 651-665.	2.5	45
31	Activation of Âμ-Î´ opioid receptor heteromers inhibits neuropathic pain behavior in rodents. Pain, 2020, 161, 842-855.	4.2	43
32	Activation of Peripheral Î¼-opioid Receptors by Dermorphin [<scp>d</scp>-Arg2, Lys4] (1â€“4) Amide Leads to Modality-preferred Inhibition of Neuropathic Pain. Anesthesiology, 2016, 124, 706-720.	2.5	40
33	Astrocytes contribute to pain gating in the spinal cord. Science Advances, 2021, 7, eabi6287.	10.3	40
34	Peripherally Acting Î¼-Opioid Receptor Agonists Attenuate Ongoing Pain-associated Behavior and Spontaneous Neuronal Activity after Nerve Injury in Rats. Anesthesiology, 2018, 128, 1220-1236.	2.5	39
35	RNA-seq of spinal cord from nerve-injured rats after spinal cord stimulation. Molecular Pain, 2018, 14, 174480691881742.	2.1	39
36	MrgC agonism at central terminals of primary sensory neurons inhibits neuropathic pain. Pain, 2014, 155, 534-544.	4.2	38

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37	Spinal Cord Stimulation for Pain Treatment After Spinal Cord Injury. Neuroscience Bulletin, 2019, 35, 527-539.	2.9	36
38	Melatonin improves functional recovery in female rats after acute spinal cord injury by modulating polarization of spinal microglial/macrophages. Journal of Neuroscience Research, 2019, 97, 733-743.	2.9	35
39	Parathyroid hormone attenuates osteoarthritis pain by remodeling subchondral bone in mice. ELife, 2021, 10, .	6.0	34
40	Aberrant subchondral osteoblastic metabolism modifies NaV1.8 for osteoarthritis. ELife, 2020, 9, .	6.0	34
41	Suppression of spinal connexin 43 expression attenuates mechanical hypersensitivity in rats after an L5 spinal nerve injury. Neuroscience Letters, 2014, 566, 194-199.	2.1	33
42	Differential expression of voltage-gated sodium channels in afferent neurons renders selective neural block by ionic direct current. Science Advances, 2018, 4, eaaq1438.	10.3	30
43	John J. Bonica Award Lecture: Peripheral neuronal hyperexcitability: the â€œlow-hangingâ€•target for safe therapeutic strategies in neuropathic pain. Pain, 2020, 161, S14-S26.	4.2	30
44	A partial L5 spinal nerve ligation induces a limited prolongation of mechanical allodynia in rats: An efficient model for studying mechanisms of neuropathic pain. Neuroscience Letters, 2010, 471, 43-47.	2.1	26
45	Spinal cord stimulation prevents paclitaxel-induced mechanical and cold hypersensitivity and modulates spinal gene expression in rats. Pain Reports, 2019, 4, e785.	2.7	25
46	Temporal changes in MrgC expression after spinal nerve injury. Neuroscience, 2014, 261, 43-51.	2.3	24
47	Activation of MrgC receptor inhibits N-type calcium channels in small-diameter primary sensory neurons in mice. Pain, 2014, 155, 1613-1621.	4.2	24
48	Electrical Stimulation of Dorsal Root Entry Zone Attenuates Wide-Dynamic-Range Neuronal Activity in Rats. Neuromodulation, 2015, 18, 33-40.	0.8	24
49	Spinal Cord Stimulation Enhances Microglial Activation in the Spinal Cord of Nerve-Injured Rats. Neuroscience Bulletin, 2020, 36, 1441-1453.	2.9	24
50	Maladaptive Plasticity and Neuropathic Pain. Neural Plasticity, 2016, 2016, 1-2.	2.2	23
51	Melatonin for the treatment of spinal cord injury. Neural Regeneration Research, 2018, 13, 1685.	3.0	23
52	Down-regulation of Stargazin Inhibits the Enhanced Surface Delivery of Î±-Amino-3-hydroxy-5-methyl-4-isoxazole Propionate Receptor GluR1 Subunit in Rat Dorsal Horn and Ameliorates Postoperative Pain. Anesthesiology, 2014, 121, 609-619.	2.5	22
53	Calcium imaging in population of dorsal root ganglion neurons unravels novel mechanisms of visceral pain sensitization and referred somatic hypersensitivity. Pain, 2021, 162, 1068-1081.	4.2	22
54	Intrathecal carbenoxolone inhibits neuropathic pain and spinal wide-dynamic range neuronal activity in rats after an L5 spinal nerve injury. Neuroscience Letters, 2014, 563, 45-50.	2.1	19

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55	Demethylation regulation of BDNF gene expression in dorsal root ganglion neurons is implicated in opioid-induced pain hypersensitivity in rats. Neurochemistry International, 2016, 97, 91-98.	3.8	19
56	Mas-Related G Protein-Coupled Receptors Offer Potential New Targets for Pain Therapy. Advances in Experimental Medicine and Biology, 2016, 904, 87-103.	1.6	18
57	Novel NTRK1 mutations in Chinese patients with congenital insensitivity to pain with anhidrosis. Molecular Pain, 2018, 14, 174480691878114.	2.1	18
58	Genotypic and Phenotypic Analysis in Chinese Cohort With Autosomal Recessive Osteogenesis Imperfecta. Frontiers in Genetics, 2020, 11, 984.	2.3	18
59	Riluzole improves functional recovery after acute spinal cord injury in rats and may be associated with changes in spinal microglia/macrophages polarization. Neuroscience Letters, 2020, 723, 134829.	2.1	18
60	Tolerance develops to the antiallodynic effects of the peripherally acting opioid loperamide hydrochloride in nerve-injured rats. Pain, 2013, 154, 2477-2486.	4.2	17
61	Pirt Contributes to Uterine Contraction-Induced Pain in Mice. Molecular Pain, 2015, 11, s12990-015-0054.	2.1	17
62	Resveratrol fails to affect cocaine conditioned place preference behavior, but alleviates anxiety-like behaviors in cocaine withdrawn rats. Psychopharmacology, 2016, 233, 1279-1287.	3.1	17
63	Electroâ€acupuncture alleviates adolescent cocaine exposureâ€enhanced anxietyâ€like behaviors in adult mice by attenuating the activities of PV interneurons in PrL. FASEB Journal, 2020, 34, 11913-11924.	0.5	17
64	PGE2/EP4 skeleton interoception activity reduces vertebral endplate porosity and spinal pain with low-dose celecoxib. Bone Research, 2021, 9, 36.	11.4	17
65	Oligomerization of MrgC11 and Î¼-opioid receptors in sensory neurons enhances morphine analgesia. Science Signaling, 2018, 11, .	3.6	16
66	The Impact of Electrical Charge Delivery on Inhibition of Mechanical Hypersensitivity in Nerve-Injured Rats by Sub-Sensory Threshold Spinal Cord Stimulation. Neuromodulation, 2019, 22, 163-171.	0.8	16
67	Mechanisms of bone pain: Progress in research from bench to bedside. Bone Research, 2022, 10, .	11.4	15
68	Effects of Combined Electrical Stimulation of the Dorsal Column and Dorsal Roots on Wide-Dynamic-Range Neuronal Activity in Nerve-Injured Rats. Neuromodulation, 2015, 18, 592-598.	0.8	14
69	The inhibition of high-voltage-activated calcium current by activation of MrgC11 involves phospholipase C-dependent mechanisms. Neuroscience, 2015, 300, 393-403.	2.3	13
70	Dermorphin [D-Arg2, Lys4] (1-4) amide inhibits below-level heat hypersensitivity in mice after contusive thoracic spinal cord injury. Pain, 2019, 160, 2710-2723.	4.2	13
71	Upregulation of Î±2Îˆâ€²1 Calcium Channel Subunit in the Spinal Cord Contributes to Pelvic Organ Cross-Sensitization in a Rat Model of Experimentally-Induced Endometriosis. Neurochemical Research, 2015, 40, 1267-1273.	3.3	12
72	Adjacent intact nociceptive neurons drive the acute outburst of pain following peripheral axotomy. Scientific Reports, 2019, 9, 7651.	3.3	11

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73	Adolescent cocaine exposure induces prolonged synaptic modifications in medial prefrontal cortex of adult rats. Brain Structure and Function, 2018, 223, 1829-1838.	2.3	10
74	Increased Neuroligin 2 Levels in the Postsynaptic Membrane in Spinal Dorsal Horn may Contribute to Postoperative Pain. Neuroscience, 2018, 382, 14-22.	2.3	10
75	Downregulation of neuroligin1 ameliorates postoperative pain through inhibiting neuroligin1/postsynaptic density 95-mediated synaptic targeting of Î±-amino-3-hydroxy-5-methyl-4-isoxazole propionate receptor GluA1 subunits in rat dorsal horns. Molecular Pain, 2018, 14, 174480691876674.	2.1	10
76	Validation and Classification of Atypical Splicing Variants Associated With Osteogenesis Imperfecta. Frontiers in Genetics, 2019, 10, 979.	2.3	10
77	Botulinum toxin type A and gabapentin attenuate postoperative pain and NK1 receptor internalization in rats. Neurochemistry International, 2018, 116, 52-62.	3.8	9
78	Spinal Cord Stimulation. , 2018, , 161-178.		9
79	Spinal Cord Stimulation Attenuates Below-Level Mechanical Hypersensitivity in Rats After Thoracic Spinal Cord Injury. Neuromodulation, 2021, 24, 33-42.	0.8	9
80	Role of peripheral sensory neuron mu-opioid receptors in nociceptive, inflammatory, and neuropathic pain. Regional Anesthesia and Pain Medicine, 2020, 45, 907-916.	2.3	9
81	Comparisons of motor and sensory abnormalities after lumbar and thoracic contusion spinal cord injury in male rats. Neuroscience Letters, 2019, 708, 134358.	2.1	8
82	Thieno[2,3-d]pyrimidine-Based Positive Allosteric Modulators of Human Mas-Related G Protein-Coupled Receptor X1 (MRGPRX1). Journal of Medicinal Chemistry, 2022, 65, 3218-3228.	6.4	8
83	Modulation of Spinal Nociceptive Transmission by Sub-Sensory Threshold Spinal Cord Stimulation in Rats After Nerve Injury. Neuromodulation, 2020, 23, 36-45.	0.8	7
84	Mu-opioidergic modulation differs in deep and superficial wide-dynamic range dorsal horn neurons in mice. Neuroscience Letters, 2013, 549, 157-162.	2.1	6
85	Changes in diffusion tensor imaging indices of the lumbosacral enlargement correlate with cervical spinal cord changes and clinical assessment in patients with cervical spondylotic myelopathy. Clinical Neurology and Neurosurgery, 2019, 186, 105282.	1.4	6
86	Astrocyteâ€selective <scp>STAT3</scp> knockdown rescues methamphetamine withdrawalâ€disrupted spatial memory in mice via restoring the astrocytic capacity of glutamate clearance in <scp>dCA1</scp>. Glia, 2021, 69, 2404-2418.	4.9	6
87	Global gene expression and chromatin accessibility of the peripheral nervous system in animal models of persistent pain. Journal of Neuroinflammation, 2021, 18, 185.	7.2	6
88	Glossary of Neurostimulation Terminology: AÂCollaborative Neuromodulation Foundation, Institute of Neuromodulation, and International Neuromodulation Society Project. Neuromodulation, 2022, 25, 1050-1058.	0.8	6
89	Modulation of Trans-Synaptic Neurexinâ€“Neuroligin Interaction in Pathological Pain. Cells, 2022, 11, 1940.	4.1	6
90	Electrical stimulation at distinct peripheral sites in spinal nerve injured rats leads to different afferent activation profiles. Neuroscience Letters, 2011, 505, 52-57.	2.1	5

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91	Modeling the interactions between stimulation and physiologically induced APs in a mammalian nerve fiber: dependence on frequency and fiber diameter. Journal of Computational Neuroscience, 2018, 45, 193-206.	1.0	5
92	Wideâ€dynamicâ€range neurons are heterogeneous in windup responsiveness to changes in stimulus intensity and isoflurane anesthesia level in mice. Journal of Neuroscience Research, 2010, 88, 2272-2283.	2.9	4
93	Intra-spinal microstimulation may alleviate chronic pain after spinal cord injury. Medical Hypotheses, 2017, 104, 73-77.	1.5	4
94	Deficient mitochondrial respiration in astrocytes impairs trace fear conditioning and increases naloxoneâ€precipitated aversion in morphineâ€dependent mice. Glia, 2022, 70, 1289-1300.	4.9	4
95	Plerixafor may treat intractable post-herpetic neuralgia. Medical Hypotheses, 2015, 85, 491-493.	1.5	3
96	The emerging role of kainate receptor functional dysregulation in pain. Molecular Pain, 2021, 17, 174480692199094.	2.1	3
97	Editorsâ€™ commentary. Regional Anesthesia and Pain Medicine, 2020, 45, 755-756.	2.3	3
98	Ubiquitin-mediated receptor degradation contributes to development of tolerance to MrgC agonistâ€“induced pain inhibition in neuropathic rats. Pain, 2021, 162, 1082-1094.	4.2	3
99	Electrical neurostimulation for chronic pain: On selective relay of sensory neural activities in myelinated nerve fibers. , 2015, 2015, 4705-8.		2
100	Role of primary sensory neurone cannabinoid type-1 receptors in pain and the analgesic effects of the peripherally acting agonist CB-13 in mice. British Journal of Anaesthesia, 2021, , .	3.4	2
101	Towards Robust Control of PNS for Chronic Pain: Modeling Spinal Cord Wide-Dynamic Range Neurons with Structured Uncertainty. , 2021, 2021, 4399-4402.		2
102	63438 Differential chromatin accessibility at dorsal root ganglia enhancers is associated with nerve injury. Journal of Clinical and Translational Science, 2021, 5, 5-5.	0.6	0
103	Intradural Neuroanatomy in the Cervical Spinal Canal. Spine, 2021, 46, 703-709.	2.0	0
104	Predicting Wide-Dynamic Range Neuron Activity from Peripheral Nerve Stimulation using Linear Parameter Varying Models. , 2021, 2021, 4428-4431.		0