Robert W Gereau

List of Publications by Year
in descending order

112 papers	12,252 citations	26630 56 h-index	26613 107 g-index
131 all docs	131 docs citations	131 times ranked	12599 citing authors

#	Article	IF	Citations
1	MAP kinase and pain. Brain Research Reviews, 2009, 60, 135-148.	9.0	872
2	Sensory Neurons Co-opt Classical Immune Signaling Pathways to Mediate Chronic Itch. Cell, 2017, 171, 217-228.e13.	28.9	692
3	Soft, stretchable, fully implantable miniaturized optoelectronic systems for wireless optogenetics. Nature Biotechnology, 2015, 33, 1280-1286.	17.5	658
4	cAMP-Dependent Protein Kinase Regulates Desensitization of the Capsaicin Receptor (VR1) by Direct Phosphorylation. Neuron, 2002, 35, 721-731.	8.1	500
5	Acute p38-Mediated Modulation of Tetrodotoxin-Resistant Sodium Channels in Mouse Sensory Neurons by Tumor Necrosis Factor-Â. Journal of Neuroscience, 2006, 26, 246-255.	3.6	428
6	Protein kinase C phosphorylation sensitizes but does not activate the capsaicin receptor transient receptor potential vanilloid 1 (TRPV1). Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12480-12485.	7.1	391
7	Metabotropic Glutamate Receptor Subtypes 1 and 5 Are Activators of Extracellular Signal-Regulated Kinase Signaling Required for Inflammatory Pain in Mice. Journal of Neuroscience, 2001, 21, 3771-3779.	3.6	358
8	A wireless closed-loop system for optogenetic peripheral neuromodulation. Nature, 2019, 565, 361-365.	27.8	358
9	Flexible Near-Field Wireless Optoelectronics as Subdermal Implants for Broad Applications in Optogenetics. Neuron, 2017, 93, 509-521.e3.	8.1	323
10	Synaptic Plasticity in the Amygdala in a Model of Arthritic Pain: Differential Roles of Metabotropic Glutamate Receptors 1 and 5. Journal of Neuroscience, 2003, 23, 52-63.	3.6	223
11	The Kv4.2 Potassium Channel Subunit Is Required for Pain Plasticity. Neuron, 2006, 50, 89-100.	8.1	223
12	Activation of the Extracellular Signal-Regulated Kinase in the Amygdala Modulates Pain Perception. Journal of Neuroscience, 2007, 27, 1543-1551.	3.6	201
13	Lmx1bIs Required for Maintenance of Central Serotonergic Neurons and Mice Lacking Central Serotonergic System Exhibit Normal Locomotor Activity. Journal of Neuroscience, 2006, 26, 12781-12788.	3.6	184
14	Role of Protein Kinase C Phosphorylation in Rapid Desensitization of Metabotropic Glutamate Receptor 5. Neuron, 1998, 20, 143-151.	8.1	179
15	Metabotropic receptors for glutamate and GABA in pain. Brain Research Reviews, 2009, 60, 43-56.	9.0	176
16	Prostaglandin and Protein Kinase A-Dependent Modulation of Vanilloid Receptor Function by Metabotropic Glutamate Receptor 5: Potential Mechanism for Thermal Hyperalgesia. Journal of Neuroscience, 2002, 22, 7444-7452.	3.6	172
17	A Novel Behavioral Assay for Measuring Cold Sensation in Mice. PLoS ONE, 2012, 7, e39765.	2.5	171
18	Spatial transcriptomics of dorsal root ganglia identifies molecular signatures of human nociceptors. Science Translational Medicine, 2022, 14, eabj8186.	12.4	164

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19	A Pain Research Agenda for the 21st Century. Journal of Pain, 2014, 15, 1203-1214.	1.4	145
20	Pain-Induced Negative Affect Is Mediated via Recruitment of The Nucleus Accumbens Kappa Opioid System. Neuron, 2019, 102, 564-573.e6.	8.1	139
21	ERK Integrates PKA and PKC Signaling in Superficial Dorsal Horn Neurons. I. Modulation of A-Type K⁺Currents. Journal of Neurophysiology, 2003, 90, 1671-1679.	1.8	137
22	Human sensory neurons: Membrane properties and sensitization by inflammatory mediators. Pain, 2014, 155, 1861-1870.	4.2	137
23	ERK Integrates PKA and PKC Signaling in Superficial Dorsal Horn Neurons. II. Modulation of Neuronal Excitability. Journal of Neurophysiology, 2003, 90, 1680-1688.	1.8	136
24	Posttranslational mechanisms of peripheral sensitization. Journal of Neurobiology, 2004, 61, 88-106.	3.6	134
25	Spatiotemporal Control of Opioid Signaling and Behavior. Neuron, 2015, 86, 923-935.	8.1	131
26	Battery-free, fully implantable optofluidic cuff system for wireless optogenetic and pharmacological neuromodulation of peripheral nerves. Science Advances, 2019, 5, eaaw5296.	10.3	127
27	Mice Lacking Central Serotonergic Neurons Show Enhanced Inflammatory Pain and an Impaired Analgesic Response to Antidepressant Drugs. Journal of Neuroscience, 2007, 27, 6045-6053.	3.6	125
28	Episodic and chronic migraineurs are hypersensitive to thermal stimuli between migraine attacks. Cephalalgia, 2011, 31, 6-12.	3.9	117
29	Divergent Modulation of Nociception by Glutamatergic and GABAergic Neuronal Subpopulations in the Periaqueductal Gray. ENeuro, 2017, 4, ENEURO.0129-16.2017.	1.9	117
30	Identification of Amino Acid Residues that Control Functional Behavior in GluR5 and GluR6 Kainate Receptors. Neuron, 1997, 19, 913-926.	8.1	116
31	Wireless, battery-free optoelectronic systems as subdermal implants for local tissue oximetry. Science Advances, 2019, 5, eaaw0873.	10.3	116
32	Activation of Metabotropic Glutamate Receptor 5 in the Amygdala Modulates Pain-Like Behavior. Journal of Neuroscience, 2010, 30, 8203-8213.	3.6	115
33	Inflammation persistently enhances nocifensive behaviors mediated by spinal group I mGluRs through sustained ERK activation. Pain, 2004, 111, 125-135.	4.2	113
34	Effects of Ethanol and Anesthetics on Type 1 and 5 Metabotropic Glutamate Receptors Expressed inXenopus laevisOocytes. Molecular Pharmacology, 1998, 53, 148-156.	2.3	112
35	Stretchable multichannel antennas in soft wireless optoelectronic implants for optogenetics. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8169-E8177.	7.1	111
36	Macrophage angiotensin II type 2 receptor triggers neuropathic pain. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8057-E8066.	7.1	107

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37	Metabotropic Glutamate Receptor 5 Modulates Nociceptive Plasticity via Extracellular Signal-Regulated Kinaseâ€“Kv4.2 Signaling in Spinal Cord Dorsal Horn Neurons. Journal of Neuroscience, 2007, 27, 13181-13191.	3.6	103
38	Central Amygdala Metabotropic Glutamate Receptor 5 in the Modulation of Visceral Pain. Journal of Neuroscience, 2012, 32, 14217-14226.	3.6	102
39	Biodegradable Monocrystalline Silicon Photovoltaic Microcells as Power Supplies for Transient Biomedical Implants. Advanced Energy Materials, 2018, 8, 1703035.	19.5	98
40	Wireless multilateral devices for optogenetic studies of individual and social behaviors. Nature Neuroscience, 2021, 24, 1035-1045.	14.8	98
41	Modulation of Presynaptic Calcium Transients by Metabotropic Glutamate Receptor Activation: A Differential Role in Acute Depression of Synaptic Transmission and Long-Term Depression. Journal of Neuroscience, 2002, 22, 6885-6890.	3.6	95
42	Fully implantable, battery-free wireless optoelectronic devices for spinal optogenetics. Pain, 2017, 158, 2108-2116.	4.2	93
43	Angiotensin II Triggers Peripheral Macrophage-to-Sensory Neuron Redox Crosstalk to Elicit Pain. Journal of Neuroscience, 2018, 38, 7032-7057.	3.6	92
44	Miniaturized, Batteryâ€Free Optofluidic Systems with Potential for Wireless Pharmacology and Optogenetics. Small, 2018, 14, 1702479.	10.0	91
45	Natural Wax for Transient Electronics. Advanced Functional Materials, 2018, 28, 1801819.	14.9	90
46	Peripheral Group II Metabotropic Glutamate Receptors (mGluR2/3) Regulate Prostaglandin E₂-Mediated Sensitization of Capsaicin Responses and Thermal Nociception. Journal of Neuroscience, 2002, 22, 6388-6393.	3.6	84
47	Protein Kinase CÎ² Is a Critical Regulator of Dopamine Transporter Trafficking and Regulates the Behavioral Response to Amphetamine in Mice. Journal of Pharmacology and Experimental Therapeutics, 2009, 328, 912-920.	2.5	82
48	RET Signaling Is Required for Survival and Normal Function of Nonpeptidergic Nociceptors. Journal of Neuroscience, 2010, 30, 3983-3994.	3.6	80
49	Transcriptional regulation of type-2 metabotropic glutamate receptors: an epigenetic path to novel treatments for chronic pain. Trends in Pharmacological Sciences, 2010, 31, 153-160.	8.7	80
50	Surgical extraction of human dorsal root ganglia from organ donors and preparation of primary sensory neuron cultures. Nature Protocols, 2016, 11, 1877-1888.	12.0	79
51	A Paranigral VTA Nociceptin Circuit that Constrains Motivation for Reward. Cell, 2019, 178, 653-671.e19.	28.9	76
52	Peripheral group II metabotropic glutamate receptors mediate endogenous anti-allodynia in inflammation. Pain, 2003, 106, 411-417.	4.2	74
53	Potentiation of cAMP responses by metabotropic glutamate receptors depresses excitatory synaptic transmission by a kinase-independent mechanism. Neuron, 1994, 12, 1121-1129.	8.1	73
54	Characterization of Whole Body Pain in Urological Chronic Pelvic Pain Syndrome at Baseline: A MAPP Research Network Study. Journal of Urology, 2017, 198, 622-631.	0.4	73

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55	Transcriptional Regulation of Metabotropic Glutamate Receptor 2/3 Expression by the NF-Î²B Pathway in Primary Dorsal Root Ganglia Neurons: A Possible Mechanism for the Analgesic Effect of L-Acetylcarnitine. Molecular Pain, 2006, 2, 1744-8069-2-20.	2.1	71
56	The Metabotropic Glutamate Receptor Subtype 5 Antagonist Fenobam Is Analgesic and Has Improved in Vivo Selectivity Compared with the Prototypical Antagonist 2-Methyl-6-(phenylethynyl)-pyridine. Journal of Pharmacology and Experimental Therapeutics, 2009, 330, 834-843.	2.5	69
57	Pharmacological target-focused transcriptomic analysis of native vs cultured human and mouse dorsal root ganglia. Pain, 2020, 161, 1497-1517.	4.2	67
58	Central serotonergic neurons are differentially required for opioid analgesia but not for morphine tolerance or morphine reward. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14519-14524.	7.1	66
59	Segmental Hyperalgesia to Mechanical Stimulus in Interstitial Cystitis/Bladder Pain Syndrome: Evidence of Central Sensitization. Journal of Urology, 2014, 191, 1294-1299.	0.4	63
60	Optogenetic Induction of Colonic Motility in Mice. Gastroenterology, 2018, 155, 514-528.e6.	1.3	62
61	A photoswitchable GPCR-based opsin for presynaptic inhibition. Neuron, 2021, 109, 1791-1809.e11.	8.1	62
62	Inflammation and nerve injury minimally affect mouse voluntary behaviors proposed as indicators of pain. Neurobiology of Pain (Cambridge, Mass), 2017, 2, 1-12.	2.5	59
63	Activation of spinal extracellular signal-regulated kinases (ERK) 1/2 is associated with the development of visceral hyperalgesia of the bladder. Pain, 2011, 152, 2117-2124.	4.2	58
64	Acetyl-L-Carnitine in Neuropathic Pain. CNS Drugs, 2007, 21, 31-38.	5.9	52
65	Cell type-specific modulation of sensory and affective components of itch in the periaqueductal gray. Nature Communications, 2019, 10, 4356.	12.8	51
66	Group II mGluRs suppress hyperexcitability in mouse and human nociceptors. Pain, 2016, 157, 2081-2088.	4.2	49
67	Optogenetic silencing of nociceptive primary afferents reduces evoked and ongoing bladder pain. Scientific Reports, 2017, 7, 15865.	3.3	49
68	Loss of Par-1a/MARK3/C-TAK1 Kinase Leads to Reduced Adiposity, Resistance to Hepatic Steatosis, and Defective Gluconeogenesis. Molecular and Cellular Biology, 2010, 30, 5043-5056.	2.3	47
69	Human cells and networks of pain: Transforming pain target identification and therapeutic development. Neuron, 2021, 109, 1426-1429.	8.1	47
70	IL-33 signaling in sensory neurons promotes dry skin itch. Journal of Allergy and Clinical Immunology, 2022, 149, 1473-1480.e6.	2.9	44
71	Impaired Inflammatory Pain and Thermal Hyperalgesia in Mice Expressing Neuron-Specific Dominant Negative Mitogen Activated Protein Kinase Kinase (MEK). Molecular Pain, 2006, 2, 1744-8069-2-2.	2.1	43
72	HDAC and HAT Inhibitors Differently Affect Analgesia Mediated by Group II Metabotropic Glutamate Receptors. Molecular Pain, 2014, 10, 1744-8069-10-68.	2.1	43

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73	Numbing the Senses: Role of TRPA1 in Mechanical and Cold Sensation. Neuron, 2006, 50, 177-180.	8.1	42
74	mGlu2 Metabotropic Glutamate Receptors Restrain Inflammatory Pain and Mediate the Analgesic Activity of Dual mGlu2/mGlu3 Receptor Agonists. Molecular Pain, 2011, 7, 1744-8069-7-6.	2.1	42
75	Headache outcomes following treatment of unruptured intracranial aneurysms: A prospective analysis. Cephalalgia, 2011, 31, 1082-1089.	3.9	42
76	Genetic Targeting of ERK1 Suggests a Predominant Role for ERK2 in Murine Pain Models. Journal of Neuroscience, 2010, 30, 11537-11547.	3.6	41
77	Dopamine-Dependent Compensation Maintains Motor Behavior in Mice with Developmental Ablation of Dopaminergic Neurons. Journal of Neuroscience, 2013, 33, 17095-17107.	3.6	41
78	Metabotropic Glutamate Receptors as Targets for Analgesia: Antagonism, Activation, and Allosteric Modulation. Current Pharmaceutical Biotechnology, 2011, 12, 1681-1688.	1.6	40
79	Animal Models of Urologic Chronic Pelvic Pain Syndromes: Findings From the Multidisciplinary Approach to the Study of Chronic Pelvic Pain Research Network. Urology, 2015, 85, 1454-1465.	1.0	40
80	Membrane Topology of a Metabotropic Glutamate Receptor. Journal of Biological Chemistry, 2003, 278, 30294-30301.	3.4	39
81	Protein Kinase CÎ´ Mediates Histamine-Evoked Itch and Responses in Pruriceptors. Molecular Pain, 2015, 11, 1744-8069-11-1.	2.1	39
82	Myelinating Schwann cells ensheath multiple axons in the absence of E3 ligase component Fbxw7. Nature Communications, 2019, 10, 2976.	12.8	39
83	Metabotropic glutamate receptor 5 regulates excitability and Kv4.2-containing K⁺ channels primarily in excitatory neurons of the spinal dorsal horn. Journal of Neurophysiology, 2011, 105, 3010-3021.	1.8	38
84	Extended amygdala-parabrachial circuits alter threat assessment and regulate feeding. Science Advances, 2021, 7, .	10.3	36
85	The Overlap and Distinction of Self-Reported Symptoms between Interstitial Cystitis/Bladder Pain Syndrome and Overactive Bladder: A Questionnaire Based Analysis. Journal of Urology, 2014, 192, 1679-1686.	0.4	35
86	Voluntary Exercise Training: Analysis of Mice in Uninjured, Inflammatory, and Nerve-Injured Pain States. PLoS ONE, 2015, 10, e0133191.	2.5	35
87	Metabotropic Glutamate Receptor 2/3 (mGluR2/3) Activation Suppresses TRPV1 Sensitization in Mouse, But Not Human, Sensory Neurons. ENeuro, 2018, 5, ENEURO.0412-17.2018.	1.9	35
88	ERK2 Alone Drives Inflammatory Pain But Cooperates with ERK1 in Sensory Neuron Survival. Journal of Neuroscience, 2015, 35, 9491-9507.	3.6	33
89	Protamine Sulfate Induced Bladder Injury Protects from Distention Induced Bladder Pain. Journal of Urology, 2013, 189, 343-351.	0.4	31
90	Enhanced Nonpeptidergic Intraepidermal Fiber Density and an Expanded Subset of Chloroquine-Responsive Trigeminal Neurons in a Mouse Model of Dry Skin Itch. Journal of Pain, 2015, 16, 346-356.	1.4	31

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91	Spotlight on pain: optogenetic approaches for interrogating somatosensory circuits. Pain, 2016, 157, 2424-2433.	4.2	31
92	Isozyme-specific Effects of Protein Kinase C in Pain Modulation. Anesthesiology, 2011, 115, 1261-1270.	2.5	31
93	Assessment of Pain and Itch Behavior in a Mouse Model ofÂNeurofibromatosis Type 1. Journal of Pain, 2013, 14, 628-637.	1.4	30
94	Reproducibility of the heat/capsaicin skin sensitization model in healthy volunteers. Journal of Pain Research, 2013, 6, 771.	2.0	30
95	Effect of progesterone on serotonin turnover in rats primed with estrogen implants into the ventromedial hypothalamus. Brain Research Bulletin, 1993, 32, 293-300.	3.0	29
96	Metabotropic Glutamate Receptor 5 (mGluR5) Regulates Bladder Nociception. Molecular Pain, 2012, 8, 1744-8069-8-20.	2.1	28
97	Profiling the molecular signature of satellite glial cells at the single cell level reveals high similarities between rodents and humans. Pain, 2022, 163, 2348-2364.	4.2	27
98	A Potential Role for Stress-Induced Microbial Alterations in IgA-Associated Irritable Bowel Syndrome with Diarrhea. Cell Reports Medicine, 2020, 1, 100124.	6.5	24
99	Group II metabotropic glutamate receptors inhibit cAMP-dependent protein kinase-mediated enhancement of tetrodotoxin-resistant sodium currents in mouse dorsal root ganglion neurons. Neuroscience Letters, 2004, 357, 159-162.	2.1	23
100	A bright future? Optogenetics in the periphery for pain research and therapy. Pain, 2018, 159, S65-S73.	4.2	23
101	Cellular, circuit and transcriptional framework for modulation of itch in the central amygdala. ELife, 2021, 10, .	6.0	22
102	A Simple and Inexpensive Method for Determining Cold Sensitivity and Adaptation in Mice. Journal of Visualized Experiments, 2015, , .	0.3	21
103	Metabotropic Glutamate Receptor 5 Antagonism with Fenobam. Anesthesiology, 2011, 115, 1239-1250.	2.5	21
104	Antiâ€vascular endothelial growth factor treatment decreases bladder pain in cyclophosphamide cystitis: a Multidisciplinary Approach to the Study of Chronic Pelvic Pain (<scp>MAPP</scp>) Research Network animal model study. BJU International, 2017, 120, 576-583.	2.5	20
105	Differential Regulation of Bladder Pain and Voiding Function by Sensory Afferent Populations Revealed by Selective Optogenetic Activation. Frontiers in Integrative Neuroscience, 2018, 12, 5.	2.1	20
106	A dynamic set point for thermal adaptation requires phospholipase C-mediated regulation of TRPM8 in vivo. Pain, 2014, 155, 2124-2133.	4.2	19
107	Surgical implantation of wireless, battery-free optoelectronic epidural implants for optogenetic manipulation of spinal cord circuits in mice. Nature Protocols, 2021, 16, 3072-3088.	12.0	19
108	A technique to measure cold adaptation in freely behaving mice. Journal of Neuroscience Methods, 2014, 236, 86-91.	2.5	14

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109	Deletion of Tsc2 in Nociceptors Reduces Target Innervation, Ion Channel Expression, and Sensitivity to Heat. ENeuro, 2018, 5, ENEURO.0436-17.2018.	1.9	11
110	The Effects of Tail Biopsy for Genotyping on Behavioral Responses to Nociceptive Stimuli. PLoS ONE, 2009, 4, e6457.	2.5	8
111	The cannabinoid agonist CB-13 produces peripherally mediated analgesia in mice but elicits tolerance and signs of central nervous system activity with repeated dosing. Pain, 2022, 163, 1603-1621.	4.2	4
112	Postinflammatory hyperpigmentation after human cold pain testing. Pain Reports, 2016, 1, e569.	2.7	0