Michael Costigan

List of Publications by Year
in descending order

64 papers	8,848 citations	81743 39 h-index	110170 64 g-index
66 all docs	66 docs citations	66 times ranked	9496 citing authors

#	Article	IF	Citations
1	Neuropathic Pain: A Maladaptive Response of the Nervous System to Damage. Annual Review of Neuroscience, 2009, 32, 1-32.	5.0	1,562
2	GTP cyclohydrolase and tetrahydrobiopterin regulate pain sensitivity and persistence. Nature Medicine, 2006, 12, 1269-1277.	15.2	504
3	Replicate high-density rat genome oligonucleotide microarrays reveal hundreds of regulated genes in the dorsal root ganglion after peripheral nerve injury. BMC Neuroscience, 2002, 3, 16.	0.8	489
4	T-Cell Infiltration and Signaling in the Adult Dorsal Spinal Cord Is a Major Contributor to Neuropathic Pain-Like Hypersensitivity. Journal of Neuroscience, 2009, 29, 14415-14422.	1.7	380
5	Genetically determined P2X7 receptor pore formation regulates variability in chronic pain sensitivity. Nature Medicine, 2012, 18, 595-599.	15.2	335
6	A Systems-Level Analysis of the Peripheral Nerve Intrinsic Axonal Growth Program. Neuron, 2016, 89, 956-970.	3.8	314
7	A Genome-wide Drosophila Screen for Heat Nociception Identifies Î±2Î´3 as an Evolutionarily Conserved Pain Gene. Cell, 2010, 143, 628-638.	13.5	283
8	The Voltage-Gated Sodium Channel Nav1.9 Is an Effector of Peripheral Inflammatory Pain Hypersensitivity. Journal of Neuroscience, 2006, 26, 12852-12860.	1.7	265
9	Diversity of Expression of the Sensory Neuron-Specific TTX-Resistant Voltage-Gated Sodium Ion Channels SNS and SNS2. Molecular and Cellular Neurosciences, 2000, 15, 331-342.	1.0	264
10	Two sodium channels contribute to the TTX-R sodium current in primary sensory neurons. Nature Neuroscience, 1998, 1, 653-655.	7.1	262
11	TRPA1 Contributes to Cold Hypersensitivity. Journal of Neuroscience, 2010, 30, 15165-15174.	1.7	248
12	Identification and characterization of a novel human vanilloid receptor-like protein, VRL-2. Physiological Genomics, 2001, 4, 165-174.	1.0	224
13	Multiple chronic pain states are associated with a common amino acidâ€“changing allele in KCNS1. Brain, 2010, 133, 2519-2527.	3.7	224
14	Complement Induction in Spinal Cord Microglia Results in Anaphylatoxin C5a-Mediated Pain Hypersensitivity. Journal of Neuroscience, 2007, 27, 8699-8708.	1.7	211
15	Accelerating axonal growth promotes motor recovery after peripheral nerve injury in mice. Journal of Clinical Investigation, 2011, 121, 4332-4347.	3.9	195
16	The serine protease inhibitor SerpinA3N attenuates neuropathic pain by inhibiting T cellâ€“derived leukocyte elastase. Nature Medicine, 2015, 21, 518-523.	15.2	182
17	Pain: Molecular mechanisms. Journal of Pain, 2000, 1, 35-44.	0.7	180
18	The metabolite BH4 controls T cell proliferation in autoimmunity and cancer. Nature, 2018, 563, 564-568.	13.7	174

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19	Heat Shock Protein 27: Developmental Regulation and Expression after Peripheral Nerve Injury. Journal of Neuroscience, 1998, 18, 5891-5900.	1.7	167
20	A Role for HSP27 in Sensory Neuron Survival. Journal of Neuroscience, 1999, 19, 8945-8953.	1.7	155
21	Developmental Expression of the TTX-Resistant Voltage-Gated Sodium Channels Na_v1.8 (SNS) and Na_v1.9 (SNS2) in Primary Sensory Neurons. Journal of Neuroscience, 2001, 21, 6077-6085.	1.7	146
22	Mechanistic Differences in Neuropathic Pain Modalities Revealed by Correlating Behavior with Global Expression Profiling. Cell Reports, 2018, 22, 1301-1312.	2.9	142
23	TrpA1 Regulates Thermal Nociception in Drosophila. PLoS ONE, 2011, 6, e24343.	1.1	140
24	Nuclear Calcium Signaling in Spinal Neurons Drives a Genomic Program Required for Persistent Inflammatory Pain. Neuron, 2013, 77, 43-57.	3.8	114
25	Spinal microglia and neuropathic pain in young rats. Pain, 2007, 128, 215-224.	2.0	106
26	Reduction of Neuropathic and Inflammatory Pain through Inhibition of the Tetrahydrobiopterin Pathway. Neuron, 2015, 86, 1393-1406.	3.8	101
27	Natural Killer Cells Degenerate Intact Sensory Afferents following Nerve Injury. Cell, 2019, 176, 716-728.e18.	13.5	98
28	COX2 in CNS neural cells mediates mechanical inflammatory pain hypersensitivity in mice. Journal of Clinical Investigation, 2009, 119, 287-94.	3.9	98
29	Robust Axonal Regeneration Occurs in the Injured CAST/Ei Mouse CNS. Neuron, 2015, 86, 1215-1227.	3.8	87
30	No DREAM, No Pain. Cell, 2002, 108, 297-300.	13.5	83
31	GCH1 Haplotype Determines Vascular and Plasma Biopterin Availability in Coronary Artery Disease. Journal of the American College of Cardiology, 2008, 52, 158-165.	1.2	83
32	R-Flurbiprofen Reduces Neuropathic Pain in Rodents by Restoring Endogenous Cannabinoids. PLoS ONE, 2010, 5, e10628.	1.1	76
33	The Genetics of Neuropathic Pain from Model Organisms to Clinical Application. Neuron, 2019, 104, 637-653.	3.8	71
34	The BMP Coreceptor RGMb Promotes While the Endogenous BMP Antagonist Noggin Reduces Neurite Outgrowth and Peripheral Nerve Regeneration by Modulating BMP Signaling. Journal of Neuroscience, 2011, 31, 18391-18400.	1.7	64
35	GCH1, BH4 and Pain. Current Pharmaceutical Biotechnology, 2011, 12, 1728-1741.	0.9	56
36	GDNF selectively promotes regeneration of injury-primed sensory neurons in the lesioned spinal cord. Molecular and Cellular Neurosciences, 2007, 36, 185-194.	1.0	55

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37	Reliable Screening for a Pain-Protective Haplotype in the GTP Cyclohydrolase 1 Gene (GCH1) Through the Use of 3 or Fewer Single Nucleotide Polymorphisms. Clinical Chemistry, 2007, 53, 1010-1015.	1.5	52
38	Cytotoxic Immunity in Peripheral Nerve Injury and Pain. Frontiers in Neuroscience, 2020, 14, 142.	1.4	49
39	Neuropathic pain drives anxiety behavior in mice, results consistent with anxiety levels in diabetic neuropathy patients. Pain Reports, 2018, 3, e651.	1.4	45
40	Upâ€“Down Reader: An Open Source Program for Efficiently Processing 50% von Frey Thresholds. Frontiers in Pharmacology, 2018, 9, 433.	1.6	44
41	Time-Resolved Fast Mammalian Behavior Reveals the Complexity of Protective Pain Responses. Cell Reports, 2017, 20, 89-98.	2.9	41
42	Origins, Actions and Dynamic Expression Patterns of the Neuropeptide VGF in Rat Peripheral and Central Sensory Neurones Following Peripheral Nerve Injury. Molecular Pain, 2008, 4, 1744-8069-4-62.	1.0	40
43	Analgesia by inhibiting tetrahydrobiopterin synthesis. Current Opinion in Pharmacology, 2012, 12, 92-99.	1.7	39
44	Ro5-4864 promotes neonatal motor neuron survival and nerve regeneration in adult rats. European Journal of Neuroscience, 2008, 27, 937-946.	1.2	38
45	Transcriptomic Approaches to Neural Repair. Journal of Neuroscience, 2015, 35, 13860-13867.	1.7	28
46	Post-stroke pain hypersensitivity induced by experimental thalamic hemorrhage in rats is region-specific and demonstrates limited efficacy of gabapentin. Neuroscience Bulletin, 2014, 30, 887-902.	1.5	27
47	Enhanced Neuronal Regeneration in the CAST/Ei Mouse Strain Is Linked to Expression of Differentiation Markers after Injury. Cell Reports, 2017, 20, 1136-1147.	2.9	26
48	Human induced pluripotent stem cell-derived GABAergic interneuron transplants attenuate neuropathic pain. Pain, 2020, 161, 379-387.	2.0	25
49	CNS repair and axon regeneration: Using genetic variation to determine mechanisms. Experimental Neurology, 2017, 287, 409-422.	2.0	24
50	High basal expression and injury-induced down regulation of two regulator of G-protein signaling transcripts, RGS3 and RGS4 in primary sensory neurons. Molecular and Cellular Neurosciences, 2003, 24, 106-116.	1.0	23
51	Construction of a Global Pain Systems Network Highlights Phospholipid Signaling as a Regulator of Heat Nociception. PLoS Genetics, 2012, 8, e1003071.	1.5	23
52	Mendelian etiologies identified with whole exome sequencing in cerebral palsy. Annals of Clinical and Translational Neurology, 2022, 9, 193-205.	1.7	23
53	Painâ€™s peptide signature. Pain, 2012, 153, 509-510.	2.0	22
54	High Energy Diets-Induced Metabolic and Prediabetic Painful Polyneuropathy in Rats. PLoS ONE, 2013, 8, e57427.	1.1	21

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55	Diltiazem Promotes Regenerative Axon Growth. Molecular Neurobiology, 2019, 56, 3948-3957.	1.9	19
56	Exploiting microarrays to reveal differential gene expression in the nervous system. Genome Biology, 2003, 4, 105.	13.9	18
57	Topoisomerase I inhibition and peripheral nerve injury induce DNA breaks and ATF3-associated axon regeneration in sensory neurons. Cell Reports, 2021, 36, 109666.	2.9	16
58	Combining Human and Rodent Genetics to Identify New Analgesics. Neuroscience Bulletin, 2018, 34, 143-155.	1.5	15
59	Heritability of nociception IV: Neuropathic pain assays are genetically distinct across methods of peripheral nerve injury. Pain, 2014, 155, 868-880.	2.0	13
60	Sepiapterin Reductase Inhibition Leading to Selective Reduction of Inflammatory Joint Pain in Mice and Increased Urinary Sepiapterin Levels in Humans and Mice. Arthritis and Rheumatology, 2020, 72, 57-66.	2.9	13
61	Arachidonic acid containing phosphatidylcholine increases due to microglial activation in ipsilateral spinal dorsal horn following spared sciatic nerve injury. PLoS ONE, 2017, 12, e0177595.	1.1	13
62	Intracolonic Mustard Oil Induces Visceral Pain in Mice by TRPA1-Dependent and -Independent Mechanisms: Role of Tissue Injury and P2X Receptors. Frontiers in Pharmacology, 2020, 11, 613068.	1.6	6
63	Reading and writing: the evolution of molecular pain genetics. Pain, 2019, 160, 2177-2185.	2.0	2
64	Pain Analgesic Developments in the Genomic Era. , 2020, , 209-237.		0