Xinzhong Dong

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Sensory neuronâ€“expressed TRPC3 mediates acute and chronic itch. Pain, 2023, 164, 98-110.	4.2	10
2	Cluster Analysis of Circulating Plasma Biomarkers in Prurigo Nodularis Reveals a Distinct Systemic Inflammatory Signature in African Americans. Journal of Investigative Dermatology, 2022, 142, 1300-1308.e3.	0.7	21
3	Synchronized cluster firing, a distinct form of sensory neuron activation, drives spontaneous pain. Neuron, 2022, 110, 209-220.e6.	8.1	38
4	Scratching the surface of itch receptors. Trends in Pharmacological Sciences, 2022, 43, 168-170.	8.7	3
5	Synthesis and Biological Characterization of a Series of 2-Sulfonamidebenzamides as Allosteric Modulators of MrgX1. ACS Medicinal Chemistry Letters, 2022, 13, 841-847.	2.8	1
6	Biliverdin reductase bridges focal adhesion kinase to Src to modulate synaptic signaling. Science Signaling, 2022, 15, eabh3066.	3.6	4
7	Transcription Factor MAFA Regulates Mechanical Sensation by Modulating Piezo2 Expression. Neuroscience Bulletin, 2022, , .	2.9	1
8	Miswiring of Merkel cell and pruriceptive C fiber drives the itch-scratch cycle. Science Translational Medicine, 2022, 14, .	12.4	13
9	Peripheral mechanisms of chronic pain. Medical Review, 2022, 2, 251-270.	1.2	10
10	MRGPRX2 Activation Causes Increased Skin Reactivity in Patients with Chronic Spontaneous Urticaria. Journal of Investigative Dermatology, 2021, 141, 678-681.e2.	0.7	43
11	A basophil-neuronal axis promotes itch. Cell, 2021, 184, 422-440.e17.	28.9	130
12	Parathyroid hormone attenuates osteoarthritis pain by remodeling subchondral bone in mice. ELife, 2021, 10, .	6.0	34
13	Activation of MrgprA3 and MrgprC11 on Bladder-Innervating Afferents Induces Peripheral and Central Hypersensitivity to Bladder Distension. Journal of Neuroscience, 2021, 41, 3900-3916.	3.6	9
14	Pruriception and neuronal coding in nociceptor subtypes in human and nonhuman primates. ELife, 2021, 10, .	6.0	32
15	Transcriptomic analysis of atopic dermatitis in African Americans is characterized by Th2/Th17-centered cutaneous immune activation. Scientific Reports, 2021, 11, 11175.	3.3	28
16	Population Coding of Capsaicin Concentration by Sensory Neurons Revealed Using Ca2+ Imaging of Dorsal Root Ganglia Explants from Adult pirt-GCaMP3 Mouse. Cellular Physiology and Biochemistry, 2021, 55, 428-448.	1.6	4
17	Secondary (iso)BAs cooperate with endogenous ligands to activate FXR under physiological and pathological conditions. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2021, 1867, 166153.	3.8	5
18	A group of cationic amphiphilic drugs activates MRGPRX2 and induces scratching behavior in mice. Journal of Allergy and Clinical Immunology, 2021, 148, 506-522.e8.	2.9	29

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19	Prurigo Nodularis Is Characterized by Systemic and Cutaneous T Helper 22 Immune Polarization. Journal of Investigative Dermatology, 2021, 141, 2208-2218.e14.	0.7	54
20	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
21	Astrocytes contribute to pain gating in the spinal cord. Science Advances, 2021, 7, eabi6287.	10.3	40
22	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
23	Activation of Âµ-Î´ opioid receptor heteromers inhibits neuropathic pain behavior in rodents. Pain, 2020, 161, 842-855.	4.2	43
24	Acute activation of bronchopulmonary vagal nociceptors by type I interferons. Journal of Physiology, 2020, 598, 5541-5554.	2.9	24
25	Neuropathic Itch. Cells, 2020, 9, 2263.	4.1	10
26	The odorant receptor OR2W3 on airway smooth muscle evokes bronchodilation via a cooperative chemosensory tradeoff between TMEM16A and CFTR. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28485-28495.	7.1	11
27	Neural Mechanisms of Itch. Annual Review of Neuroscience, 2020, 43, 187-205.	10.7	54
28	Nociceptorâ€"Mast Cell Sensory Clusters as Regulators of Skin Homeostasis. Trends in Neurosciences, 2020, 43, 130-132.	8.6	22
29	Aberrant subchondral osteoblastic metabolism modifies NaV1.8 for osteoarthritis. ELife, 2020, 9, .	6.0	34
30	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
31	Facilitation of MrgprD by TRPâ€A1 promotes neuropathic pain. FASEB Journal, 2019, 33, 1360-1373.	0.5	55
32	Development of a Mouse Pain Scale Using Sub-second Behavioral Mapping and Statistical Modeling. Cell Reports, 2019, 28, 1623-1634.e4.	6.4	65
33	A Connective Tissue Mast-Cell-Specific Receptor Detects Bacterial Quorum-Sensing Molecules and Mediates Antibacterial Immunity. Cell Host and Microbe, 2019, 26, 114-122.e8.	11.0	89
34	A Mast Cellâ€"Specific Receptor Is Critical for Granuloma Induced by Intrathecal Morphine Infusion. Journal of Immunology, 2019, 203, 1701-1714.	0.8	26
35	FAM19A1, a brainâ€enriched and metabolically responsive neurokine, regulates food intake patterns and mouse behaviors. FASEB Journal, 2019, 33, 14734-14747.	0.5	20
36	Diacylglycerol kinase Î¶ promotes allergic airway inflammation and airway hyperresponsiveness through distinct mechanisms. Science Signaling, 2019, 12, .	3.6	20

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37	A Pungent and Painful Toxin. Cell, 2019, 178, 1279-1281.	28.9	4
38	Discovery of Benzamidine- and 1-Aminoisoquinoline-Based Human MAS-Related G-Protein-Coupled Receptor X1 (MRGPRX1) Agonists. Journal of Medicinal Chemistry, 2019, 62, 8631-8641.	6.4	19
39	Cholestatic pruritus: Emerging mechanisms and therapeutics. Journal of the American Academy of Dermatology, 2019, 81, 1371-1378.	1.2	23
40	Spicy Immunity: Pain to Gain. Immunity, 2019, 51, 426-428.	14.3	3
41	A Mast-Cell-Specific Receptor Mediates Neurogenic Inflammation and Pain. Neuron, 2019, 101, 412-420.e3.	8.1	237
42	Adjacent intact nociceptive neurons drive the acute outburst of pain following peripheral axotomy. Scientific Reports, 2019, 9, 7651.	3.3	11
43	Subchondral bone osteoclasts induce sensory innervation and osteoarthritis pain. Journal of Clinical Investigation, 2019, 129, 1076-1093.	8.2	239
44	MRGPRX4 is a G protein-coupled receptor activated by bile acids that may contribute to cholestatic pruritus. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10525-10530.	7.1	100
45	Clonal VÎ³6 ⁺ VÎ´4 ⁺ T cells promote IL-17â€“mediated immunity against <i>Staphylococcus aureus</i> skin infection. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10917-10926.	7.1	75
46	Activation of Mast-Cell-Expressed Mas-Related G-Protein-Coupled Receptors Drives Non-histaminergic Itch. Immunity, 2019, 50, 1163-1171.e5.	14.3	213
47	Development and application of a high-content virion display human GPCR array. Nature Communications, 2019, 10, 1997.	12.8	13
48	Pirt deficiency has subtle female-specific effects on energy and glucose metabolism in mice. Molecular Metabolism, 2019, 23, 75-81.	6.5	6
49	Calcium imaging approaches in investigation of pain mechanism in the spinal cord. Experimental Neurology, 2019, 317, 129-132.	4.1	7
50	Effects of ginger constituent 6â€•shogaol on gastroesophageal vagal afferent Câ€•fibers. Neurogastroenterology and Motility, 2019, 31, e13585.	3.0	7
51	Sphingosineâ€•1â€•phosphate activates mouse vagal airway afferent Câ€•fibres via S1PR3 receptors. Journal of Physiology, 2019, 597, 2007-2019.	2.9	23
52	MrgprX1 mediates neuronal excitability and itch through tetrodotoxin-resistant sodium channels. Itch (Philadelphia, Pa), 2019, 4, e28-e28.	0.2	16
53	House dust mites activate nociceptorâ€“mast cell clusters to drive type 2 skin inflammation. Nature Immunology, 2019, 20, 1435-1443.	14.5	196
54	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

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55	STIM1 thermosensitivity defines the optimal preference temperature for warm sensation in mice. Cell Research, 2019, 29, 95-109.	12.0	17
56	Role of P2X3 receptors in scratching behavior in mouse models. Journal of Allergy and Clinical Immunology, 2019, 143, 1252-1254.e8.	2.9	15
57	Prostaglandin E2 mediates sensory nerve regulation of bone homeostasis. Nature Communications, 2019, 10, 181.	12.8	152
58	Activation of pruritogenic TGR5, MrgprA3, and MrgprC11 on colon-innervating afferents induces visceral hypersensitivity. JCI Insight, 2019, 4, .	5.0	59
59	Neuronal FcÎ³RI mediates acute and chronic joint pain. Journal of Clinical Investigation, 2019, 129, 3754-3769.	8.2	30
60	Identification of a bilirubin receptor that may mediate a component of cholestatic itch. ELife, 2019, 8, .	6.0	86
61	Mrgprs on vagal sensory neurons contribute to bronchoconstriction and airway hyper-responsiveness. Nature Neuroscience, 2018, 21, 324-328.	14.8	46
62	Saikosaponin A inhibits compound 48/80-induced pseudo-allergy via the Mrgprx2 pathway in vitro and in vivo. Biochemical Pharmacology, 2018, 148, 147-154.	4.4	56
63	Peripheral and Central Mechanisms of Itch. Neuron, 2018, 98, 482-494.	8.1	250
64	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
65	Investigation of Pain Mechanisms by Calcium Imaging Approaches. Neuroscience Bulletin, 2018, 34, 194-199.	2.9	42
66	Visualization of Peripheral Neuron Sensitization in a Surgical Mouse Model of Osteoarthritis by In Vivo Calcium Imaging. Arthritis and Rheumatology, 2018, 70, 88-97.	5.6	41
67	A disease mutation reveals a role for NaV1.9 in acute itch. Journal of Clinical Investigation, 2018, 128, 5434-5447.	8.2	42
68	Matrine inhibits itching by lowering the activity of calcium channel. Scientific Reports, 2018, 8, 11328.	3.3	17
69	Melanotan II causes hypothermia in mice by activation of mast cells and stimulation of histamine 1 receptors. American Journal of Physiology - Endocrinology and Metabolism, 2018, 315, E357-E366.	3.5	7
70	Oligomerization of MrgC11 and Î¼-opioid receptors in sensory neurons enhances morphine analgesia. Science Signaling, 2018, 11, .	3.6	16
71	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
72	Leaky Gate Model: Intensity-Dependent Coding of Pain and Itch in the Spinal Cord. Neuron, 2017, 93, 840-853.e5.	8.1	131

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73	Adult enteric nervous system in health is maintained by a dynamic balance between neuronal apoptosis and neurogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3709-E3718.	7.1	208
74	An Intrinsic Epigenetic Barrier for Functional Axon Regeneration. Neuron, 2017, 94, 337-346.e6.	8.1	130
75	Electroacupuncture Promotes Central Nervous System-Dependent Release of Mesenchymal Stem Cells. Stem Cells, 2017, 35, 1303-1315.	3.2	37
76	MRGPRX2 is essential for sinomenine hydrochloride induced anaphylactoid reactions. Biochemical Pharmacology, 2017, 146, 214-223.	4.4	54
77	Use of the relative release index for histamine in LAD2 cells to evaluate the potential anaphylactoid effects of drugs. Scientific Reports, 2017, 7, 13714.	3.3	37
78	Typical antimicrobials induce mast cell degranulation and anaphylactoid reactions via MRGPRX2 and its murine homologue MRGPRB2. European Journal of Immunology, 2017, 47, 1949-1958.	2.9	62
79	Mas-Related G Proteinâ€“Coupled Receptors and the Biology of Itch Sensation. Annual Review of Genetics, 2017, 51, 103-121.	7.6	97
80	A hypomorphic PIGA gene mutation causes severe defects in neuron development and susceptibility to complement-mediated toxicity in a human iPSC model. PLoS ONE, 2017, 12, e0174074.	2.5	13
81	Distinct and common expression of receptors for inflammatory mediators in vagal nodose versus jugular capsaicin-sensitive/TRPV1-positive neurons detected by low input RNA sequencing. PLoS ONE, 2017, 12, e0185985.	2.5	75
82	Investigating the role of MRGPRC11 and capsaicin-sensitive afferent nerves in the anti-influenza effects exerted by SLIGRL-amide in murine airways. Respiratory Research, 2016, 17, 62.	3.6	7
83	miR-365 targets Î²-arrestin 2 to reverse morphine tolerance in rats. Scientific Reports, 2016, 6, 38285.	3.3	44
84	The cell biology of acute itch. Journal of Cell Biology, 2016, 213, 155-161.	5.2	58
85	Coupled Activation of Primary Sensory Neurons Contributes to Chronic Pain. Neuron, 2016, 91, 1085-1096.	8.1	216
86	Simultaneous optical and electrical in vivo analysis of the enteric nervous system. Nature Communications, 2016, 7, 11800.	12.8	51
87	In vivo characterization of distinct modality-specific subsets of somatosensory neurons using GCaMP. Science Advances, 2016, 2, e1600990.	10.3	87
88	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
89	Functional Coupling with Cardiac Muscle Promotes Maturation of hPSC-Derived Sympathetic Neurons. Cell Stem Cell, 2016, 19, 95-106.	11.1	91
90	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

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91	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
92	Voltage-gated potassium channels involved in regulation of physiological function in MrgprA3-specific itch neurons. Brain Research, 2016, 1636, 161-171.	2.2	11
93	Trp channels and itch. Seminars in Immunopathology, 2016, 38, 293-307.	6.1	63
94	Different activation signals induce distinct mast cell degranulation strategies. Journal of Clinical Investigation, 2016, 126, 3981-3998.	8.2	285
95	Pirt Contributes to Uterine Contraction-Induced Pain in Mice. Molecular Pain, 2015, 11, s12990-015-0054.	2.1	17
96	Tmem100 Is a Regulator of TRPA1-TRPV1 Complex and Contributes to Persistent Pain. Neuron, 2015, 85, 833-846.	8.1	143
97	Redefining the concept of protease-activated receptors: cathepsin S evokes itch via activation of Mrgprs. Nature Communications, 2015, 6, 7864.	12.8	95
98	Supporting itch: a new role for astrocytes in chronic itch. Nature Medicine, 2015, 21, 841-842.	30.7	14
99	Selective keratinocyte stimulation is sufficient to evoke nociception in mice. Pain, 2015, 156, 656-665.	4.2	121
100	Discovery and Characterization of 2â€(Cyclopropanesulfonamido)â€‹i>N</i>â€(2â€ethoxyphenyl)benzamide, ML382: a Potent and Selective Positive Allosteric Modulator of MrgX1. ChemMedChem, 2015, 10, 57-61.	3.2	11
101	Identification of a mast-cell-specific receptor crucial for pseudo-allergic drug reactions. Nature, 2015, 519, 237-241.	27.8	926
102	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
103	Development and Evaluation of Small Peptidomimetic Ligands to Protease-Activated Receptor-2 (PAR2) through the Use of Lipid Tethering. PLoS ONE, 2014, 9, e99140.	2.5	16
104	Enhanced excitability of MRGPRA3- and MRGPRD-positive nociceptors in a model of inflammatory itch and pain. Brain, 2014, 137, 1039-1050.	7.6	97
105	Sensory neurons and circuits mediating itch. Nature Reviews Neuroscience, 2014, 15, 19-31.	10.2	259
106	Central Terminal Sensitization of TRPV1 by Descending Serotonergic Facilitation Modulates Chronic Pain. Neuron, 2014, 81, 873-887.	8.1	262
107	Peptidomimetics of Arg-Phe-NH2 as small molecule agonists of Mas-related gene C (MrgC) receptors. Bioorganic and Medicinal Chemistry, 2014, 22, 5831-5837.	3.0	5
108	Three functionally distinct classes of C-fibre nociceptors in primates. Nature Communications, 2014, 5, 4122.	12.8	85

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109	Generation of Multipotent Induced Neural Crest by Direct Reprogramming of Human Postnatal Fibroblasts with a Single Transcription Factor. Cell Stem Cell, 2014, 15, 497-506.	11.1	128
110	Itch Mechanisms and Circuits. Annual Review of Biophysics, 2014, 43, 331-355.	10.0	148
111	A subpopulation of nociceptors specifically linked to itch. Nature Neuroscience, 2013, 16, 174-182.	14.8	477
112	A long noncoding RNA contributes to neuropathic pain by silencing Kcna2 in primary afferent neurons. Nature Neuroscience, 2013, 16, 1024-1031.	14.8	319
113	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
114	Mechanisms of Itch Evoked by Î²-Alanine. Journal of Neuroscience, 2012, 32, 14532-14537.	3.6	275
115	Preso1 dynamically regulates group I metabotropic glutamate receptors. Nature Neuroscience, 2012, 15, 836-844.	14.8	79
116	Peripheral mechanisms of itch. Neuroscience Bulletin, 2012, 28, 100-110.	2.9	47
117	TLR3 deficiency impairs spinal cord synaptic transmission, central sensitization, and pruritus in mice. Journal of Clinical Investigation, 2012, 122, 2195-2207.	8.2	143
118	TRPA1 is required for histamine-independent, Mas-related G proteinâ€"coupled receptorâ€"mediated itch. Nature Neuroscience, 2011, 14, 595-602.	14.8	523
119	Itch: Cells, Molecules, and Circuits. ACS Chemical Neuroscience, 2011, 2, 17-25.	3.5	27
120	The Distinct Roles of Two GPCRs, MrgprC11 and PAR2, in Itch and Hyperalgesia. Science Signaling, 2011, 4, ra45.	3.6	195
121	BAM8â€"22 Peptide Produces Itch and Nociceptive Sensations in Humans Independent of Histamine Release. Journal of Neuroscience, 2011, 31, 7563-7567.	3.6	176
122	Pirt, a TRPV1 Modulator, Is Required for Histamine-Dependent and -Independent Itch. PLoS ONE, 2011, 6, e20559.	2.5	51
123	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
124	An Itch To Be Scratched. Neuron, 2010, 68, 334-339.	8.1	55
125	Sensory Neuron-Specific GPCR Mrgprs Are Itch Receptors Mediating Chloroquine-Induced Pruritus. Cell, 2009, 139, 1353-1365.	28.9	681
126	Pirt, a Phosphoinositide-Binding Protein, Functions as a Regulatory Subunit of TRPV1. Cell, 2008, 133, 475-485.	28.9	185

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127	Mechanisms of Compartmentalized Expression of Mrg Class G-Protein-Coupled Sensory Receptors. Journal of Neuroscience, 2008, 28, 125-132.	3.6	84
128	Agonists of the Mas-Related Gene (Mrgs) Orphan Receptors as Novel Mediators of Mast Cell-Sensory Nerve Interactions. Journal of Immunology, 2008, 180, 2251-2255.	0.8	39
129	Selective Stimulation of Astrocyte Calcium InÂSituÂDoes Not Affect Neuronal ExcitatoryÂSynaptic Activity. Neuron, 2007, 54, 611-626.	8.1	275
130	Molecular genetic visualization of a rare subset of unmyelinated sensory neurons that may detect gentle touch. Nature Neuroscience, 2007, 10, 946-948.	14.8	185
131	Atypical expansion in mice of the sensory neuron-specific Mrg G protein-coupled receptor family. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10043-10048.	7.1	227
132	Orphan G protein-coupled receptors MrgA1 and MrgC11 are distinctively activated by RF-amide-related peptides through the GÂq/11 pathway. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14740-14745.	7.1	152
133	A Diverse Family of GPCRs Expressed in Specific Subsets of Nociceptive Sensory Neurons. Cell, 2001, 106, 619-632.	28.9	611
134	Polyglutamine-Expanded Human Huntingtin Transgenes Induce Degeneration of Drosophila Photoreceptor Neurons. Neuron, 1998, 21, 633-642.	8.1	490