Hongzhen Hu

List of Publications by Citations

75 papers	2,484 citations	25 h-index	49 g-index
92 ext. papers	3,306 ext. citations	9.7 avg, IF	5.35 L-index

#	Paper	IF	Citations
75	Sensory Neurons Co-opt Classical Immune Signaling Pathways to Mediate Chronic Itch. *Cell*, **2017**, 171, 217-228.e13	56.2	414
74	Zinc activates damage-sensing TRPA1 ion channels. *Nature Chemical Biology*, **2009**, 5, 183-90	11.7	178
73	SIGNAL TRANSDUCTION. Membrane potential modulates plasma membrane phospholipid dynamics and K-Ras signaling. *Science*, **2015**, 349, 873-6	33.3	174
72	Caenorhabditis elegans TRPA-1 functions in mechanosensation. *Nature Neuroscience*, **2007**, 10, 568-77	25.5	172
71	Enteric nervous system: sensory transduction, neural circuits and gastrointestinal motility. *Nature Reviews Gastroenterology and Hepatology*, **2020**, 17, 338-351	24.2	134
70	Pore region of TRPV3 ion channel is specifically required for heat activation. *Nature Neuroscience*, **2008**, 11, 1007-13	25.5	124
69	Activation of TRPA1 channels by fenamate nonsteroidal anti-inflammatory drugs. *Pflugers Archiv European Journal of Physiology*, **2010**, 459, 579-92	4.6	91
68	Two amino acid residues determine 2-APB sensitivity of the ion channels TRPV3 and TRPV4. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 1626-31	11.5	86
67	Piezo2 channel-Merkel cell signaling modulates the conversion of touch to itch. *Science*, **2018**, 360, 530-533	33.3	77
66	Zika Virus Targets Glioblastoma Stem Cells through a SOX2-Integrin Axis. *Cell Stem Cell*, **2020**, 26, 187-204.e10	18	65
65	Sensory TRP channels contribute differentially to skin inflammation and persistent itch. *Nature Communications*, **2017**, 8, 980	17.4	59
64	Molecular and cellular mechanisms that initiate pain and itch. *Cellular and Molecular Life Sciences*, **2015**, 72, 3201-23	10.3	57
63	Transient receptor potential vanilloid 4-expressing macrophages and keratinocytes contribute differentially to allergic and nonallergic chronic itch. *Journal of Allergy and Clinical Immunology*, **2018**, 141, 608-619.e7	11.5	52
62	Identification of a Rhythmic Firing Pattern in the Enteric Nervous System That Generates Rhythmic Electrical Activity in Smooth Muscle. *Journal of Neuroscience*, **2018**, 38, 5507-5522	6.6	50
61	Sustained Elevated Adenosine via ADORA2B Promotes Chronic Pain through Neuro-immune Interaction. *Cell Reports*, **2016**, 16, 106-119	10.6	47
60	Optogenetic Induction of Colonic Motility in Mice. *Gastroenterology*, **2018**, 155, 514-528.e6	13.3	42
59	A basophil-neuronal axis promotes itch. *Cell*, **2021**, 184, 422-440.e17	56.2	42

58	TRP Channels as Drug Targets to Relieve Itch. *Pharmaceuticals*, **2018**, 11,	5.2	41
57	Retinoids activate the irritant receptor TRPV1 and produce sensory hypersensitivity. *Journal of Clinical Investigation*, **2013**, 123, 3941-51	15.9	39
56	Scaffolding by A-kinase anchoring protein enhances functional coupling between adenylyl cyclase and TRPV1 channel. *Journal of Biological Chemistry*, **2013**, 288, 3929-37	5.4	36
55	TRPV1 activity and substance P release are required for corneal cold nociception. *Nature Communications*, **2019**, 10, 5678	17.4	32
54	Thermally activated TRPV3 channels. *Current Topics in Membranes*, **2014**, 74, 325-64	2.2	30
53	Tonic inhibition of TRPV3 by Mg2+ in mouse epidermal keratinocytes. *Journal of Investigative Dermatology*, **2012**, 132, 2158-65	4.3	28
52	Zinc Inhibits TRPV1 to Alleviate Chemotherapy-Induced Neuropathic Pain. *Journal of Neuroscience*, **2018**, 38, 474-483	6.6	27
51	TRPV4 Channel Signaling in Macrophages Promotes Gastrointestinal Motility via Direct Effects on Smooth Muscle Cells. *Immunity*, **2018**, 49, 107-119.e4	32.3	26
50	Gating of human TRPV3 in a lipid bilayer. *Nature Structural and Molecular Biology*, **2020**, 27, 635-644	17.6	23
49	Polymodal TRPV1 and TRPV4 Sensors Colocalize but Do Not Functionally Interact in a Subpopulation of Mouse Retinal Ganglion Cells. *Frontiers in Cellular Neuroscience*, **2018**, 12, 353	6.1	23
48	Differential expression of canonical (classical) transient receptor potential channels in guinea pig enteric nervous system. *Journal of Comparative Neurology*, **2008**, 511, 847-62	3.4	19
47	Eact, a small molecule activator of TMEM16A, activates TRPV1 and elicits pain- and itch-related behaviours. *British Journal of Pharmacology*, **2016**, 173, 1208-18	8.6	19
46	Resident cardiac macrophages mediate adaptive myocardial remodeling. *Immunity*, **2021**, 54, 2072-2088.e7	32.3	19
45	Cell-based calcium assay for medium to high throughput screening of TRP channel functions using FlexStation 3. *Journal of Visualized Experiments*, **2011**,	1.6	16
44	Identification and characterization of two ankyrin-B isoforms in mammalian heart. *Cardiovascular Research*, **2015**, 107, 466-77	9.9	15
43	Parathyroid Hormone-Related Peptide Elicits Peripheral TRPV1-dependent Mechanical Hypersensitivity. *Frontiers in Cellular Neuroscience*, **2018**, 12, 38	6.1	15
42	Activation of TRPV4 Regulates Respiration through Indirect Activation of Bronchopulmonary Sensory Neurons. *Frontiers in Physiology*, **2016**, 7, 65	4.6	15
41	Synaptic activation of putative sensory neurons by hexamethonium-sensitive nerve pathways in mouse colon. *American Journal of Physiology - Renal Physiology*, **2018**, 314, G53-G64	5.1	14

40	Targeting Pain-evoking Transient Receptor Potential Channels for the Treatment of Pain. *Current Neuropharmacology*, **2013**, 11, 652-63	7.6	14
39	Kv Channel S1-S2 Linker Working as a Binding Site of Human β-Defensin 2 for Channel Activation Modulation. *Journal of Biological Chemistry*, **2015**, 290, 15487-15495	5.4	13
38	Potentiation of high voltage-activated calcium channels by 4-aminopyridine depends on subunit composition. *Molecular Pharmacology*, **2014**, 86, 760-72	4.3	13
37	The Pore Loop Domain of TRPV1 Is Required for Its Activation by the Volatile Anesthetics Chloroform and Isoflurane. *Molecular Pharmacology*, **2015**, 88, 131-8	4.3	12
36	The antimicrobial peptide human beta-defensin 2 promotes itch through Toll-like receptor 4 signaling in mice. *Journal of Allergy and Clinical Immunology*, **2017**, 140, 885-888.e6	11.5	10
35	Diversity of neurogenic smooth muscle electrical rhythmicity in mouse proximal colon. *American Journal of Physiology - Renal Physiology*, **2020**, 318, G244-G253	5.1	10
34	Cryo-EM structure of a proton-activated chloride channel TMEM206. *Science Advances*, **2021**, 7,	14.3	9
33	Enteric Nervous System Structure and Neurochemistry Related to Function and Neuropathology **2018**, 337-360		8
32	A novel player in the field: Merkel disc in touch, itch and pain. *Experimental Dermatology*, **2019**, 28, 1412-1415	4	7
31	Versatile cell ablation tools and their applications to study loss of cell functions. *Cellular and Molecular Life Sciences*, **2019**, 76, 4725-4743	10.3	7
30	Loureirin B, an essential component of Sanguis Draxonis, inhibits Kv1.3 channel and suppresses cytokine release from Jurkat T cells. *Cell and Bioscience*, **2014**, 4, 78	9.8	7
29	Notch signaling in bone marrow-derived FSP-1⁺ cells initiates neointima formation in arteriovenous fistulas. *Kidney International*, **2019**, 95, 1347-1358	9.9	6
28	CaMKII is essential for the function of the enteric nervous system. *PLoS ONE*, **2012**, 7, e44426	3.7	6
27	IL-33 signaling in sensory neurons promotes dry skin itch. *Journal of Allergy and Clinical Immunology* , **2021**,	11.5	6
26	Transient stimulation of TRPV4-expressing keratinocytes promotes hair follicle regeneration in mice. *British Journal of Pharmacology*, **2020**, 177, 4181-4192	8.6	5
25	LE135, a retinoid acid receptor antagonist, produces pain through direct activation of TRP channels. *British Journal of Pharmacology*, **2014**, 171, 1510-20	8.6	5
24	Kir6.1- and SUR2-dependent KATP over-activity disrupts intestinal motility in murine models of Cantu Syndrome. *JCI Insight*, **2020**,	9.9	5
23	Inhalation anaesthetic isoflurane inhibits the muscarinic cation current and carbachol-induced gastrointestinal smooth muscle contractions. *European Journal of Pharmacology*, **2018**, 820, 39-44	5.3	5

22	Optogenetic control of the enteric nervous system and gastrointestinal transit. *Expert Review of Gastroenterology and Hepatology*, **2019**, 13, 281-284	4.2	5
21	Mechanosensitive TRPV4 is required for crystal-induced inflammation. *Annals of the Rheumatic Diseases*, **2021**, 80, 1604-1614	2.4	4
20	Goblet cell LRRC26 regulates BK channel activation and protects against colitis in mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	4
19	Long range synchronization within the enteric nervous system underlies propulsion along the large intestine in mice. *Communications Biology*, **2021**, 4, 955	6.7	4
18	Anti-inflammatory dopamine- and serotonin-based endocannabinoid epoxides reciprocally regulate cannabinoid receptors and the TRPV1 channel. *Nature Communications*, **2021**, 12, 926	17.4	3
17	Optogenetic Induction of Propagating Colonic Motor Complexes and Silencing of Colonic Motility Using Cre-Inducible Activation and Inactivation of Calretinin-Expressing Neurons. *Gastroenterology*, **2017**, 152, S102	13.3	2
16	THE ROLE OF TRPV4 CATION CHANNELS IN THE REGULATION OF PHENYLEPHRINE-INDUCED CONTRACTION OF RAT PULMONARY ARTER. *Fiziologicheskii Zhurnal*, **2016**, 62, 79-86		2
15	Neuronal IL-4R□and JAK1 signaling critically mediate atopic dermatitis-associated. *Journal of Allergy and Clinical Immunology*, **2018**, 141, AB92	11.5	2
14	TMEM184b is necessary for IL-31 induced itch		1
13	Effects of optogenetic activation of the enteric nervous system on gastrointestinal motility in mouse small intestine. *Autonomic Neuroscience: Basic and Clinical*, **2020**, 229, 102733	2.4	1
12	Synthesis and Characterization of a Specific Iodine-125-Labeled TRPC5 Radioligand. *ChemMedChem* , **2020**, 15, 1854-1860	3.7	1
11	Transmembrane protein TMEM184B is necessary for interleukin-31-induced itch. *Pain*, **2021**,	8	1
10	A Critical Role for TRP Channels in the Skin **2017**, 95-111		0
9	Loureirin B Exerts its Immunosuppressive Effects by Inhibiting STIM1/Orai1 and K1.3 Channels. *Frontiers in Pharmacology*, **2021**, 12, 685092	5.6	0
8	Mechanisms of Broad-Band UVB Irradiation-Induced Itch in Mice. *Journal of Investigative Dermatology*, **2021**, 141, 2499-2508.e3	4.3	0
7	Modification of Neurogenic Colonic Motor Behaviours by Chemogenetic Ablation of Calretinin Neurons.. *Frontiers in Cellular Neuroscience*, **2022**, 16, 799717	6.1	0
6	TRPV4 Agonist GSK1016790A Regulates Respiration through Indirect Activation of Bronchopulmonary Sensory Neurons. *FASEB Journal*, **2015**, 29, 860.2	0.9	
5	Sustained Elevation of Adenosine-ADORA2B Signaling Promotes Chronic Pain through Neuro-Immune Interaction in Sickle Cell Disease. *Blood*, **2015**, 126, 974-974	2.2	

4	Activation of TRPA1 channels by Fenamate NSAIDs. *FASEB Journal*, **2010**, 24, 583.3	0.9
3	Acid induces TRPV4-mediated calcium influx in mouse esophageal keratinocytes. *FASEB Journal*, **2012**, 26, 695.7	0.9
2	Synthesis and in vitro evaluation of new TRPV4 ligands and biodistribution study of an C-labeled radiotracer in rodents. *Bioorganic and Medicinal Chemistry Letters*, **2020**, 30, 127573	2.9
1	Cutaneous mechanisms of itch signaling. *Itch (Philadelphia, Pa)*, **2021**, 6, e50-e50	1.8