David E Clapham

List of Publications by Year
in descending order

248	52,026	1457 107	1341 223
papers	citations	h-index	g-index

266	266	266	37944
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Calcium Signaling. Cell, 2007, 131, 1047-1058.	13.5	3,538
2	TRP channels as cellular sensors. Nature, 2003, 426, 517-524.	13.7	2,380
3	Calcium signaling. Cell, 1995, 80, 259-268.	13.5	2,346
4	AN INTRODUCTION TO TRP CHANNELS. Annual Review of Physiology, 2006, 68, 619-647.	5.6	1,378
5	The mitochondrial calcium uniporter is a highly selective ion channel. Nature, 2004, 427, 360-364.	13.7	1,217
6	The Î²Î³ subunits of GTP-binding proteins activate the muscarinic K+ channel in heart. Nature, 1987, 325, 321-326.	13.7	1,173
7	The trp ion channel family. Nature Reviews Neuroscience, 2001, 2, 387-396.	4.9	1,020
8	Roles of G protein subunits in transmembrane signalling. Nature, 1988, 333, 129-134.	13.7	839
9	A sperm ion channel required for sperm motility and male fertility. Nature, 2001, 413, 603-609.	13.7	833
10	TRPV3 is a calcium-permeable temperature-sensitive cation channel. Nature, 2002, 418, 181-186.	13.7	795
11	G PROTEIN Î²Î³ SUBUNITS. Annual Review of Pharmacology and Toxicology, 1997, 37, 167-203.	4.2	791
12	TRPC6 is a glomerular slit diaphragm-associated channel required for normal renal function. Nature Genetics, 2005, 37, 739-744.	9.4	747
13	International Union of Pharmacology: Approaches to the Nomenclature of Voltage-Gated Ion Channels. Pharmacological Reviews, 2003, 55, 573-574.	7.1	742
14			

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19	A voltage-gated proton-selective channel lacking the pore domain. Nature, 2006, 440, 1213-1216.	13.7	546
20	EMRE Is an Essential Component of the Mitochondrial Calcium Uniporter Complex. Science, 2013, 342, 1379-1382.	6.0	537
21	Developmental Origin of a Bipotential Myocardial and Smooth Muscle Cell Precursor in the Mammalian Heart. Cell, 2006, 127, 1137-1150.	13.5	504
22	International Union of Basic and Clinical Pharmacology. LXXVI. Current Progress in the Mammalian TRP Ion Channel Family. Pharmacological Reviews, 2010, 62, 381-404.	7.1	502
23	Rapid vesicular translocation and insertion of TRP channels. Nature Cell Biology, 2004, 6, 709-720.	4.6	497
24	The TRPM7 channel is inactivated by PIP2 hydrolysis. Nature Cell Biology, 2002, 4, 329-336.	4.6	483
25	Genome-Wide RNAi Screen Identifies Letm1 as a Mitochondrial Ca ²⁺ /H ⁺ Antiporter. Science, 2009, 326, 144-147.	6.0	470
26	A Prokaryotic Voltage-Gated Sodium Channel. Science, 2001, 294, 2372-2375.	6.0	461
27	TPC Proteins Are Phosphoinositide- Activated Sodium-Selective Ion Channels in Endosomes and Lysosomes. Cell, 2012, 151, 372-383.	13.5	456
28	All four CatSper ion channel proteins are required for male fertility and sperm cell hyperactivated motility. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1219-1223.	3.3	455
29	Recombinant G-protein Î²Î³-subunits activate the muscarinic-gated atrial potassium channel. Nature, 1994, 368, 255-257.	13.7	452
30	Crystal structure of an orthologue of the NaChBac voltage-gated sodium channel. Nature, 2012, 486, 130-134.	13.7	439
31	G-protein Î²Î³-subunits activate the cardiac muscarinic K+-channel via phospholipase A2. Nature, 1989, 337, 557-560.	13.7	438
32	Primary cilia are specialized calcium signalling organelles. Nature, 2013, 504, 311-314.	13.7	429
33	Inositol 1,3,4,5-tetrakisphosphate activates an endothelial Ca2+-permeable channel. Nature, 1992, 355, 356-358.	13.7	419
34	Whole-cell patch-clamp measurements of spermatozoa reveal an alkaline-activated Ca2+ channel. Nature, 2006, 439, 737-740.	13.7	403
35	The NMDA Receptor Is Coupled to the ERK Pathway by a Direct Interaction between NR2B and RasGRF1. Neuron, 2003, 40, 775-784.	3.8	394
36	Deletion of <i>Trpm7</i> Disrupts Embryonic Development and Thymopoiesis Without Altering Mg ²⁺ Homeostasis. Science, 2008, 322, 756-760.	6.0	379

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37	Formation of Novel TRPC Channels by Complex Subunit Interactions in Embryonic Brain. Journal of Biological Chemistry, 2003, 278, 39014-39019.	1.6	370
38	Molecular mechanisms of intracellular calcium excitability in X. laevis oocytes. Cell, 1992, 69, 283-294.	13.5	369
39	Phosphatidylinositol 3-Kinase Activates ERK in Primary Sensory Neurons and Mediates Inflammatory Heat Hyperalgesia through TRPV1 Sensitization. Journal of Neuroscience, 2004, 24, 8300-8309.	1.7	368
40	International Union of Pharmacology. XLIX. Nomenclature and Structure-Function Relationships of Transient Receptor Potential Channels. Pharmacological Reviews, 2005, 57, 427-450.	7.1	365
41	International Union of Pharmacology. XLI. Compendium of Voltage-Gated Ion Channels: Potassium Channels. Pharmacological Reviews, 2003, 55, 583-586.	7.1	358
42	CatSper1 required for evoked Ca2+ entry and control of flagellar function in sperm. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 14864-14868.	3.3	357
43	Abnormal Heart Rate Regulation in GIRK4 Knockout Mice. Neuron, 1998, 20, 103-114.	3.8	355
44	Ion Channels â€” Basic Science and Clinical Disease. New England Journal of Medicine, 1997, 336, 1575-1586.	13.9	354
45	TRPC5 is a regulator of hippocampal neurite length and growth cone morphology. Nature Neuroscience, 2003, 6, 837-845.	7.1	344
46	New mammalian chloride channel identified by expression cloning. Nature, 1992, 356, 238-241.	13.7	343
47	Camphor Activates and Strongly Desensitizes the Transient Receptor Potential Vanilloid Subtype 1 Channel in a Vanilloid-Independent Mechanism. Journal of Neuroscience, 2005, 25, 8924-8937.	1.7	340
48	Rheotaxis Guides Mammalian Sperm. Current Biology, 2013, 23, 443-452.	1.8	338
49	CaT1 manifests the pore properties of the calcium-release-activated calcium channel. Nature, 2001, 410, 705-709.	13.7	336
50	mTOR Regulates Lysosomal ATP-Sensitive Two-Pore Na+ Channels to Adapt to Metabolic State. Cell, 2013, 152, 778-790.	13.5	313
51	TRP ion channels in the nervous system. Current Opinion in Neurobiology, 2004, 14, 362-369.	2.0	301
52	Primary cilia are not calcium-responsive mechanosensors. Nature, 2016, 531, 656-660.	13.7	300
53	TRPV4 Is a Regulator of Adipose Oxidative Metabolism, Inflammation, and Energy Homeostasis. Cell, 2012, 151, 96-110.	13.5	292
54	A voltage-gated ion channel expressed specifically in spermatozoa. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 12527-12531.	3.3	291

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55	The Control of Male Fertility by Spermatozoan Ion Channels. Annual Review of Physiology, 2012, 74, 453-475.	5.6	291
56	TRP Channel Regulates EGFR Signaling in Hair Morphogenesis and Skin Barrier Formation. Cell, 2010, 141, 331-343.	13.5	287
57	THE CONCISE GUIDE TO PHARMACOLOGY 2017/18: Overview. British Journal of Pharmacology, 2017, 174, S1-S16.	2.7	269
58	Direct recording and molecular identification of the calcium channel of primary cilia. Nature, 2013, 504, 315-318.	13.7	268
59	SynGAP-MUPP1-CaMKII Synaptic Complexes Regulate p38 MAP Kinase Activity and NMDA Receptor-Dependent Synaptic AMPA Receptor Potentiation. Neuron, 2004, 43, 563-574.	3.8	254
60	Essential Role for TRPC5 in Amygdala Function and Fear-Related Behavior. Cell, 2009, 137, 761-772.	13.5	245
61	International Union of Pharmacology. LIV. Nomenclature and Molecular Relationships of Inwardly Rectifying Potassium Channels. Pharmacological Reviews, 2005, 57, 509-526.	7.1	240
62	Evaluation of the role of IKAChin atrial fibrillation using a mouse knockout model. Journal of the American College of Cardiology, 2001, 37, 2136-2143.	1.2	234
63	Hv1 proton channels are required for high-level NADPH oxidase-dependent superoxide production during the phagocyte respiratory burst. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7642-7647.	3.3	234
64	Melanopsin signalling in mammalian iris and retina. Nature, 2011, 479, 67-73.	13.7	234
65	International Union of Pharmacology. XLIII. Compendium of Voltage-Gated Ion Channels: Transient Receptor Potential Channels. Pharmacological Reviews, 2003, 55, 591-596.	7.1	227
66	Functional TRPM7 Channels Accumulate at the Plasma Membrane in Response to Fluid Flow. Circulation Research, 2006, 98, 245-253.	2.0	227
67	The Concise Guide to PHARMACOLOGY 2015/16: Overview. British Journal of Pharmacology, 2015, 172, 5729-5743.	2.7	220
68	GÎ²Î³ Binds Directly to the G Protein-gated K+ Channel, IKACh. Journal of Biological Chemistry, 1995, 270, 29059-29062.	1.6	214
69	The Structure of the Polycystic Kidney Disease Channel PKD2 in Lipid Nanodiscs. Cell, 2016, 167, 763-773.e11.	13.5	214
70	A thermodynamic framework for understanding temperature sensing by transient receptor potential (TRP) channels. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19492-19497.	3.3	211
71	Structurally Distinct Ca2+ Signaling Domains of Sperm Flagella Orchestrate Tyrosine Phosphorylation and Motility. Cell, 2014, 157, 808-822.	13.5	210
72	NMDA receptors amplify calcium influx into dendritic spines during associative pre- and postsynaptic activation. Nature Neuroscience, 1998, 1, 114-118.	7.1	208

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73	The voltage-gated proton channel Hv1 enhances brain damage from ischemic stroke. Nature Neuroscience, 2012, 15, 565-573.	7.1	207
74	Molecular characterization of a swelling-induced chloride conductance regulatory protein, plCln. Cell, 1994, 76, 439-448.	13.5	206
75	Subcellular patterns of calcium release determined by G protein-specific residues of muscarinic receptors. Nature, 1991, 350, 505-508.	13.7	204
76	CACNA1H Mutations in Autism Spectrum Disorders. Journal of Biological Chemistry, 2006, 281, 22085-22091.	1.6	201
77	KSper, a pH-sensitive K+ current that controls sperm membrane potential. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7688-7692.	3.3	199
78	Calcium release from the nucleus by InsP3 receptor channels. Neuron, 1995, 14, 163-167.	3.8	194
79	Transient receptor potential cation channel, subfamily C, member 5 (TRPC5) is a cold-transducer in the peripheral nervous system. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18114-18119.	3.3	192
80	Activating mutation in a mucolipin transient receptor potential channel leads to melanocyte loss in varitintâ€“waddler mice. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18321-18326.	3.3	188
81	The TRPM7 Ion Channel Functions in Cholinergic Synaptic Vesicles and Affects Transmitter Release. Neuron, 2006, 52, 485-496.	3.8	186
82	Cloning of a Xenopus laevis Inwardly Rectifying K+ Channel Subunit That Permits GIRK1 Expression of IKACh Currents in Oocytes. Neuron, 1996, 16, 423-429.	3.8	180
83	Mammalian <i>MagT1</i> and <i>TUSC3</i> are required for cellular magnesium uptake and vertebrate embryonic development. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15750-15755.	3.3	175
84	A Novel Inward Rectifier K+ Channel with Unique Pore Properties. Neuron, 1998, 20, 995-1005.	3.8	170
85	A novel gene required for male fertility and functional CATSPER channel formation in spermatozoa. Nature Communications, 2011, 2, 153.	5.8	169
86	Replenishing the stores. Nature, 1995, 375, 634-635.	13.7	168
87	TRPM1 Forms Ion Channels Associated with Melanin Content in Melanocytes. Science Signaling, 2009, 2, ra21.	1.6	164
88	An aqueous H+ permeation pathway in the voltage-gated proton channel Hv1. Nature Structural and Molecular Biology, 2010, 17, 869-875.	3.6	160
89	MCU encodes the pore conducting mitochondrial calcium currents. ELife, 2013, 2, e00704.	2.8	156
90	The channel kinase, <i>TRPM7</i> , is required for early embryonic development. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E225-33.	3.3	153

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91	Phenotyping sensory nerve endings in vitro in the mouse. Nature Protocols, 2009, 4, 174-196.	5.5	152
92	Molecular dynamics of ion transport through the open conformation of a bacterial voltage-gated sodium channel. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6364-6369.	3.3	149
93	CatSperÎ², a Novel Transmembrane Protein in the CatSper Channel Complex. Journal of Biological Chemistry, 2007, 282, 18945-18952.	1.6	148
94	A Superfamily of Voltage-gated Sodium Channels in Bacteria*. Journal of Biological Chemistry, 2004, 279, 9532-9538.	1.6	147
95	The TRPM7 Chanzyme Is Cleaved to Release a Chromatin-Modifying Kinase. Cell, 2014, 157, 1061-1072.	13.5	147
96	The Cation Selectivity Filter of the Bacterial Sodium Channel, NaChBac. Journal of General Physiology, 2002, 120, 845-853.	0.9	141
97	Cleavage of TRPM7 Releases the Kinase Domain from the Ion Channel and Regulates Its Participation in Fas-Induced Apoptosis. Developmental Cell, 2012, 22, 1149-1162.	3.1	132
98	CatSperÎ¶ regulates the structural continuity of sperm Ca2+ signaling domains and is required for normal fertility. ELife, 2017, 6, .	2.8	131
99	Bisandrographolide from Andrographis paniculata Activates TRPV4 Channels. Journal of Biological Chemistry, 2006, 281, 29897-29904.	1.6	130
100	Intracellular calcium strongly potentiates agonist-activated TRPC5 channels. Journal of General Physiology, 2009, 133, 525-546.	0.9	128
101	Calbindin-D28K dynamically controls TRPV5-mediated Ca2+ transport. EMBO Journal, 2006, 25, 2978-2988.	3.5	125
102	Polycystin-2 is an essential ion channel subunit in the primary cilium of the renal collecting duct epithelium. ELife, 2018, 7, .	2.8	125
103	SnapShot: Mammalian TRP Channels. Cell, 2007, 129, 220.e1-220.e2.	13.5	124
104	Ion channels that control fertility in mammalian spermatozoa. International Journal of Developmental Biology, 2008, 52, 607-613.	0.3	123
105	Functional reconstitution of the mitochondrial Ca2+/H+ antiporter Letm1. Journal of General Physiology, 2014, 143, 67-73.	0.9	122
106	Prokaryotic NavMs channel as a structural and functional model for eukaryotic sodium channel antagonism. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8428-8433.	3.3	120
107	Molecular Determinants for Subcellular Localization of PSD-95 with an Interacting K+ Channel. Neuron, 1999, 23, 149-157.	3.8	119
108	The G-protein nanomachine. Nature, 1996, 379, 297-299.	13.7	117

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109	Not So Funny Anymore. Neuron, 1998, 21, 5-7.	3.8	114
110	Brain Localization and Behavioral Impact of the G-Protein-Gated K+Channel Subunit GIRK4. Journal of Neuroscience, 2000, 20, 5608-5615.	1.7	112
111	Targeted Cytosolic Delivery of Cell-Impermeable Compounds by Nanoparticle-Mediated, Light-Triggered Endosome Disruption. Nano Letters, 2010, 10, 2211-2219.	4.5	110
112	Letm1, the mitochondrial Ca ²⁺ /H ⁺ antiporter, is essential for normal glucose metabolism and alters brain function in Wolfâ€“Hirschhorn syndrome. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2249-54.	3.3	110
113	Number and Stoichiometry of Subunits in the Native Atrial G-protein-gated K+ Channel, IKACh. Journal of Biological Chemistry, 1998, 273, 5271-5278.	1.6	107
114	The voltage-gated Na+ channel NaVBP has a role in motility, chemotaxis, and pH homeostasis of an alkaliphilic Bacillus. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 10566-10571.	3.3	105
115	Citral Sensing by TRANSient Receptor Potential Channels in Dorsal Root Ganglion Neurons. PLoS ONE, 2008, 3, e2082.	1.1	101
116	Structure of the mouse TRPC4 ion channel. Nature Communications, 2018, 9, 3102.	5.8	101
117	Structure of the mammalian TRPM7, a magnesium channel required during embryonic development. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8201-E8210.	3.3	101
118	Specificity of receptor-G protein interactions: Searching for the structure behind the signal. Cellular Signalling, 1993, 5, 505-518.	1.7	100
119	Ion channel-kinase TRPM <i>7</i> is required for maintaining cardiac automaticity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3037-46.	3.3	99
120	Nucleoplasmic and cytoplasmic differences in the fluorescence properties of the calcium indicator Fluo-3. Cell Calcium, 1997, 21, 275-282.	1.1	97
121	Functional and Biochemical Evidence for G-protein-gated Inwardly Rectifying K+ (GIRK) Channels Composed of GIRK2 and GIRK3. Journal of Biological Chemistry, 2000, 275, 36211-36216.	1.6	96
122	POST, partner of stromal interaction molecule 1 (STIM1), targets STIM1 to multiple transporters. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19234-19239.	3.3	96
123	TRPM7 facilitates cholinergic vesicle fusion with the plasma membrane. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8304-8308.	3.3	95
124	Molecular basis of ion permeability in a voltageâ€gated sodium channel. EMBO Journal, 2016, 35, 820-830.	3.5	95
125	Timing of Myocardial <i>Trpm7</i> Deletion During Cardiogenesis Variably Disrupts Adult Ventricular Function, Conduction, and Repolarization. Circulation, 2013, 128, 101-114.	1.6	94
126	pICln Inhibits snRNP Biogenesis by Binding Core Spliceosomal Proteins. Molecular and Cellular Biology, 1999, 19, 4113-4120.	1.1	92

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127	Evolutionary Genomics Reveals Lineage-Specific Gene Loss and Rapid Evolution of a Sperm-Specific Ion Channel Complex: CatSpers and CatSperÎ². PLoS ONE, 2008, 3, e3569.	1.1	92
128	Real-Time Imaging of Nuclear Permeation by EGFP in Single Intact Cells. Biophysical Journal, 2003, 84, 1317-1327.	0.2	91
129	Conformational Changes of the in Situ Nuclear Pore Complex. Biophysical Journal, 1999, 77, 241-247.	0.2	90
130	Identification of Native Atrial G-protein-regulated Inwardly Rectifying K+ (GIRK4) Channel Homomultimers. Journal of Biological Chemistry, 1998, 273, 27499-27504.	1.6	89
131	Ancestral Ca2+ Signaling Machinery in Early Animal and Fungal Evolution. Molecular Biology and Evolution, 2012, 29, 91-100.	3.5	89
132	TRPM7 senses oxidative stress to release Zn ²⁺ from unique intracellular vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6079-E6088.	3.3	89
133	Caspase-11 Controls Interleukin-1Î² Release through Degradation of TRPC1. Cell Reports, 2014, 6, 1122-1128.	2.9	86
134	Calcium waves. Current Opinion in Neurobiology, 1993, 3, 375-382.	2.0	84
135	The K+ channel inward rectifier subunits form a channel similar to neuronal G protein-gated K+ channel. FEBS Letters, 1996, 379, 31-37.	1.3	84
136	Decreased Anxiety-Like Behavior and G_{Î±q/11}-Dependent Responses in the Amygdala of Mice Lacking TRPC4 Channels. Journal of Neuroscience, 2014, 34, 3653-3667.	1.7	84
137	Mitochondrial calcium uniporter regulator 1 (MCUR1) regulates the calcium threshold for the mitochondrial permeability transition. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1872-80.	3.3	83
138	Fundamental Ca2+ Signaling Mechanisms in Mouse Dendritic Cells: CRAC Is the Major Ca2+ Entry Pathway. Journal of Immunology, 2001, 166, 6126-6133.	0.4	82
139	G-protein regulation of ion channels. Current Opinion in Neurobiology, 1995, 5, 278-285.	2.0	81
140	TRP Is Cracked but Is CRAC TRP?. Neuron, 1996, 16, 1069-1072.	3.8	80
141	GÎ²Î³ Binding to GIRK4 Subunit Is Critical for G Protein-gated K+ Channel Activation. Journal of Biological Chemistry, 1998, 273, 16946-16952.	1.6	79
142	Evidence for Direct Physical Association between a K⁺Channel (Kir6.2) and an ATP-Binding Cassette Protein (SUR1) Which Affects Cellular Distribution and Kinetic Behavior of an ATP-Sensitive K⁺ Channel. Molecular and Cellular Biology, 1998, 18, 1652-1659.	1.1	79
143	Detailed comparison of expressed and native voltageâ€gated proton channel currents. Journal of Physiology, 2008, 586, 2477-2486.	1.3	78
144	Structure of full-length human TRPM4. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2377-2382.	3.3	77

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145	The G Protein Î²Î³ Subunit Transduces the Muscarinic Receptor Signal for Ca2+ Release in Xenopus Oocytes. Journal of Biological Chemistry, 1995, 270, 30068-30074.	1.6	76
146	GIRK4 Confers Appropriate Processing and Cell Surface Localization to G-protein-gated Potassium Channels. Journal of Biological Chemistry, 1999, 274, 2571-2582.	1.6	76
147	Chloride channels in the nuclear membrane. Journal of Membrane Biology, 1991, 123, 49-54.	1.0	75
148	Mutations in G protein-linked receptors: Novel insights on disease. Cell, 1993, 75, 1237-1239.	13.5	74
149	TRPM7, the Mg2+ Inhibited Channel and Kinase. Advances in Experimental Medicine and Biology, 2011, 704, 173-183.	0.8	72
150	Role of the C-terminal domain in the structure and function of tetrameric sodium channels. Nature Communications, 2013, 4, 2465.	5.8	71
151	The G-proteinâ€“gated K+ channel, <i>IKACh</i>, is required for regulation of pacemaker activity and recovery of resting heart rate after sympathetic stimulation. Journal of General Physiology, 2013, 142, 113-126.	0.9	69
152	Cryo-EM structure of TRPC5 at 2.8-Ã… resolution reveals unique and conserved structural elements essential for channel function. Science Advances, 2019, 5, eaaw7935.	4.7	69
153	Simultaneous knockout of <i>Slo3</i> and <i>CatSper1</i> abolishes all alkalization- and voltage-activated current in mouse spermatozoa. Journal of General Physiology, 2013, 142, 305-313.	0.9	65
154	Nuclear calcium and the regulation of the nuclear pore complex. BioEssays, 1997, 19, 787-792.	1.2	64
155	TRPV3 Channels Mediate Strontium-Induced Mouse-Egg Activation. Cell Reports, 2013, 5, 1375-1386.	2.9	61
156	A Spontaneous, Recurrent Mutation in Divalent Metal Transporter-1 Exposes a Calcium Entry Pathway. PLoS Biology, 2004, 2, e50.	2.6	60
157	Development of electrical coupling and action potential synchrony between paired aggregates of embryonic heart cells. Journal of Membrane Biology, 1979, 51, 75-96.	1.0	59
158	Calcium regulation of nuclear pore permeability. Cell Calcium, 1998, 23, 91-101.	1.1	58
159	Perspective: The List of Potential Volume-sensitive Chloride Currents Continues to Swell (and Shrink). Journal of General Physiology, 1998, 111, 623-624.	0.9	58
160	Sorting out MIC, TRP, and CRAC Ion Channels. Journal of General Physiology, 2002, 120, 217-220.	0.9	58
161	Calcium release and influx colocalize to the endoplasmic reticulum. Current Biology, 1997, 7, 599-602.	1.8	57
162	pICln Binds to a Mammalian Homolog of a Yeast Protein Involved in Regulation of Cell Morphology. Journal of Biological Chemistry, 1998, 273, 10811-10814.	1.6	57

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163	A Switch Mechanism for GÎ²Î³ Activation of IKACh. Journal of Biological Chemistry, 2000, 275, 29709-29716.	1.6	55
164	Calpain cleaves and activates the TRPC5 channel to participate in semaphorin 3A-induced neuronal growth cone collapse. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7888-7892.	3.3	55
165	Controlled delivery of bioactive molecules into live cells using the bacterial mechanosensitive channel MscL. Nature Communications, 2012, 3, 990.	5.8	54
166	Insights into the early evolution of animal calcium signaling machinery: A unicellular point of view. Cell Calcium, 2015, 57, 166-173.	1.1	54
167	ATP-activated P2X2 current in mouse spermatozoa. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14342-14347.	3.3	53
168	Some like it hot: spicing up ion channels. Nature, 1997, 389, 783-784.	13.7	52
169	Isomeric Tuning Yields Bright and Targetable Red Ca²⁺ Indicators. Journal of the American Chemical Society, 2019, 141, 13734-13738.	6.6	52
170	The Cardiac Inward Rectifier K+ Channel Subunit, CIR, Does Not Comprise the ATP-sensitive K+ Channel, IKATP. Journal of Biological Chemistry, 1995, 270, 28777-28779.	1.6	51
171	Calcium wave propagation by calcium-induced calcium release: An unusual excitable system. Bulletin of Mathematical Biology, 1993, 55, 315-344.	0.9	50
172	Active Nuclear Import and Export Is Independent of Lumenal Ca2+ Stores in Intact Mammalian Cells. Journal of General Physiology, 1999, 113, 239-248.	0.9	50
173	Mechanism of Persistent Protein Kinase D1 Translocation and Activation. Developmental Cell, 2003, 4, 561-574.	3.1	50
174	Therapeutic Restoration of Spinal Inhibition via Druggable Enhancement of Potassium-Chloride Cotransporter KCC2â€“Mediated Chloride Extrusion in Peripheral Neuropathic Pain. JAMA Neurology, 2014, 71, 640.	4.5	50
175	Cardiac chloride channels. Trends in Cardiovascular Medicine, 1993, 3, 23-28.	2.3	49
176	Functional Expression and Characterization of G-protein-gated Inwardly Rectifying K + Channels Containing GIRK3. Journal of Membrane Biology, 1999, 169, 123-129.	1.0	49
177	International Union of Pharmacology. L. Nomenclature and Structure-Function Relationships of CatSper and Two-Pore Channels. Pharmacological Reviews, 2005, 57, 451-454.	7.1	49
178	Analysis of the selectivity filter of the voltage-gated sodium channel NavRh. Cell Research, 2013, 23, 409-422.	5.7	46
179	Early Evolution of the Eukaryotic Ca2+ Signaling Machinery: Conservation of the CatSper Channel Complex. Molecular Biology and Evolution, 2014, 31, 2735-2740.	3.5	44
180	Cryo-EM structure of the polycystin 2-l1 ion channel. ELife, 2018, 7, .	2.8	43

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181	SIGNAL TRANSDUCTION: Hot and Cold TRP Ion Channels. Science, 2002, 295, 2228-2229.	6.0	42
182	TATA-Binding Protein (TBP)-Like Factor (TLF) Is a Functional Regulator of Transcription: Reciprocal Regulation of the Neurofibromatosis Type 1 and c- fos Genes by TLF/TRF2 and TBP. Molecular and Cellular Biology, 2005, 25, 2632-2643.	1.1	42
183	Odontoblast TRPC5 channels signal cold pain in teeth. Science Advances, 2021, 7, .	4.7	42
184	The Stoichiometry of GÎ²Î³ Binding to G-protein-regulated Inwardly Rectifying K+ Channels (GIRKs). Journal of Biological Chemistry, 2001, 276, 11409-11413.	1.6	41
185	Atypical calcium regulation of the PKD2-L1 polycystin ion channel. ELife, 2016, 5, .	2.8	41
186	TRP channels and mice deficient in TRP channels. Pflugers Archiv European Journal of Physiology, 2005, 451, 11-18.	1.3	39
187	A mysterious new influx factor?. Nature, 1993, 364, 763-764.	13.7	38
188	GÎ²Î³ Binding Increases the Open Time of IKACh: Kinetic Evidence for Multiple GÎ²Î³ Binding Sites. Biophysical Journal, 1999, 76, 246-252.	0.2	38
189	Ion channels and calcium signaling in motile cilia. ELife, 2015, 4, .	2.8	37
190	Voltage-Activated K Channels in Embryonic Chick Heart. Biophysical Journal, 1984, 45, 40-42.	0.2	36
191	Distinct Ion Channel Classes Are Expressed on the Outer Nuclear Envelope of T- and B-Lymphocyte Cell Lines. Biophysical Journal, 2000, 79, 202-214.	0.2	36
192	Leucine-rich repeat containing 8A (LRRC8A) â€“dependent volume-regulated anion channel activity is dispensable for T-cell development and function. Journal of Allergy and Clinical Immunology, 2017, 140, 1651-1659.e1.	1.5	36
193	Progress in ciliary ion channel physiology. Journal of General Physiology, 2017, 149, 37-47.	0.9	36
194	Structure, G Protein Activation, and Functional Relevance of the Cardiac G Protein-Gated K+ Channel, IKACh. Annals of the New York Academy of Sciences, 1999, 868, 386-398.	1.8	35
195	Histone phosphorylation by TRPM6â€™s cleaved kinase attenuates adjacent arginine methylation to regulate gene expression. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E7092-E7100.	3.3	35
196	Ionic selectivity and thermal adaptations within the voltage-gated sodium channel family of alkaliphilic Bacillus. ELife, 2014, 3, .	2.8	34
197	Somatostatin activates an inwardly rectifying K+ channel in neonatal rat atrial cells. Pflugers Archiv European Journal of Physiology, 1989, 414, 492-494.	1.3	33
198	Employing NaChBac for cryo-EM analysis of toxin action on voltage-gated Na ⁺ channels in nanodisc. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14187-14193.	3.3	33

#	Article	IF	Citations
199	Signal transduction through G proteins in the cardiac myocyte. Trends in Cardiovascular Medicine, 1992, 2, 6-11.	2.3	32
200	ICln Is Essential for Cellular and Early Embryonic Viability. Journal of Biological Chemistry, 2000, 275, 12363-12366.	1.6	32
201	Sperm Patch-Clamp. Methods in Enzymology, 2013, 525, 59-83.	0.4	30
202	A STIMulus Package Puts Orai Calcium Channels to Work. Cell, 2009, 136, 814-816.	13.5	29
203	Anion-Sensitive Fluorophore Identifies the Drosophila Swell-Activated Chloride Channel in a Genome-Wide RNA Interference Screen. PLoS ONE, 2012, 7, e46865.	1.1	27
204	Structural characterization of the mouse Girk genes. Gene, 2002, 284, 241-250.	1.0	26
205	Modified herpes simplex virus delivery of enhanced GFP into the central nervous system. Journal of Neuroscience Methods, 2002, 121, 211-219.	1.3	26
206	The voltage-gated Na+ channel NaVBP co-localizes with methyl-accepting chemotaxis protein at cell poles of alkaliphilic Bacillus pseudofirmus OF4. Microbiology (United Kingdom), 2007, 153, 4027-4038.	0.7	26
207	1 Intracellular calcium waves. Advances in Second Messenger and Phosphoprotein Research, 1995, 30, 1-24.	4.5	25
208	Î±-Helical distorting substitutions disrupt coupling between m3 muscarinic receptor and G proteins. FEBS Letters, 1993, 324, 103-108.	1.3	24
209	How to Lose Your Hippocampus by Working on Chloride Channels. Neuron, 2001, 29, 1-3.	3.8	24
210	Partial Structure, Chromosome Localization, and Expression of the MouseGirk4Gene. Genomics, 1997, 40, 395-401.	1.3	23
211	Pain-sensing TRPA1 channel resolved. Nature, 2015, 520, 439-441.	13.7	18
212	Arachidonic acid and its metabolites in the regulation of G-protein gated K+ channels in atrial myocytes. Biochemical Pharmacology, 1990, 39, 813-815.	2.0	16
213	Intracellular Regulation of Ion Channels in Cell Membranes. Mayo Clinic Proceedings, 1990, 65, 1127-1143.	1.4	15
214	Intracellular signalling: More jobs for GÎ²Î³. Current Biology, 1996, 6, 814-816.	1.8	15
215	Visualizing synaptic dopamine efflux with a 2D composite nanofilm. ELife, 0, 11, .	2.8	15
216	The theoretical small signal impedance of the frog node,Rana pipiens. Pflugers Archiv European Journal of Physiology, 1976, 366, 273-276.	1.3	14

#	Article	IF	Citations
217	Small signal impedance of heart cell membranes. Journal of Membrane Biology, 1982, 67, 63-71.	1.0	13
218	Partial Structure, Chromosome Localization, and Expression of the MouseIclnGene. Genomics, 1997, 40, 402-408.	1.3	13
219	Unlocking Family Secrets. Cell, 1999, 97, 547-550.	13.5	13
220	Naturally Produced Defensive Alkenal Compounds Activate TRPA1. Chemical Senses, 2016, 41, 281-292.	1.1	11
221	G protein opening of K+ channels. Nature, 1987, 327, 22-22.	13.7	9
222	Structure and Function of G-Protein Î²Î³ Subunit. , 1990, , 41-61.		9
223	At last, the structure of an ion-selective channel. Nature Structural Biology, 1998, 5, 342-344.	9.7	8
224	Symmetry, Selectivity, and the 2003 Nobel Prize. Cell, 2003, 115, 641-646.	13.5	8
225	The MUPP1â€"SynGAPÎ± protein complex does not mediate activity-induced LTP. Molecular and Cellular Neurosciences, 2008, 38, 183-188.	1.0	8
226	Outstanding questions regarding the permeation, selectivity, and regulation of the mitochondrial calcium uniporter. Biochemical and Biophysical Research Communications, 2014, 449, 367-369.	1.0	8
227	The Fungal Sexual Pheromone Sirenin Activates the Human CatSper Channel Complex. ACS Chemical Biology, 2016, 11, 452-459.	1.6	8
228	Why testicles are cool. Nature, 1994, 371, 109-110.	13.7	7
229	Intracellular Signaling and Regulation of Cardiac Ion Channels. , 2004, , 33-41.		7
230	Sperm BerserKers. ELife, 2013, 2, e01469.	2.8	7
231	Simultaneous Near Ultraviolet and Visible Excitation Confocal Microscopy of Calcium Transients in Xenopus Oocytes. Methods in Cell Biology, 1994, 40, 263-284.	0.5	6
232	More pieces of the K+ ion channel puzzle. , 1999, 6, 807-810.		4
233	Recording Electrical Currents across the Plasma Membrane of Mammalian Sperm Cells. Journal of Visualized Experiments, 2021, , .	0.2	4
234	The mother of all endocytosis. ELife, 2013, 2, e01738.	2.8	3

#	Article	IF	Citations
235	Simultaneous Ultraviolet and Visible Wavelength Confocal Microscopy. , 1994, , 95-100.		1
236	Touch Channels Sense Blood Pressure. Neuron, 1998, 21, 1224-1226.	3.8	1
237	Chapter 16 G-Protein-Gated Potassium Channels: Implication for the weaver Mouse. Current Topics in Membranes, 1999, 46, 295-320.	0.5	1
238	Excitability and Conduction. , 2001, , 311-335.		1
239	Influences: Short circuits. Journal of General Physiology, 2018, 150, 513-515.	0.9	1
240	Sperm CatSper ion channel swims into sharper focus. Nature, 2021, 595, 654-655.	13.7	1
241	Intercellular Coupling between Embryonic Heart Cell Aggregates. Developments in Cardiovascular Medicine, 1982, , 265-281.	0.1	1
242	Reply. Trends in Cardiovascular Medicine, 1993, 3, 114.	2.3	0
243	[27] G-protein-mediated pathways assayed by electrophysiology and confocal microscopy. Methods in Enzymology, 1994, 238, 321-335.	0.4	0
244	In Memorium. Journal of Molecular and Cellular Cardiology, 2001, 33, 1393-1394.	0.9	0
245	Near-membrane protein dynamics revealed by evanescent field microscopy. , 2004, 5467, 326.		0
246	Direct Recording and Molecular Identification of the Calcium Channel of Primary Cilia. Biophysical Journal, 2014, 106, 638a.	0.2	0
247	Feeling the heat: Temperature sensing by ion channels â€" how do they do it?. Biochemist, 2011, 33, 22-25.	0.2	0
248	Primary cilia and other mysteries. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2019, 92, 3-SL10.	0.0	0