Christopher J Lingle

List of Publications by Year in Descending Order

80 papers	4,034 citations	36 h-index	62 g-index
90 ext. papers	4,433 ext. citations	6.9 avg, IF	5.46 L-index

#	Paper	IF	Citations
80	Fast inactivation of Nav current in rat adrenal chromaffin cells involves two independent inactivation pathways. *Journal of General Physiology*, **2021**, 153,	3.4	2
79	Nav1.3 and FGF14 are primary determinants of the TTX-sensitive sodium current in mouse adrenal chromaffin cells. *Journal of General Physiology*, **2021**, 153,	3.4	2
78	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
77	The functionally relevant site for paxilline inhibition of BK channels. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 1021-1026	11.5	6
76	LRRC52 regulates BK channel function and localization in mouse cochlear inner hair cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 18397-18403	11.5	15
75	Regulation of BK Channels by Beta and Gamma Subunits. *Annual Review of Physiology*, **2019**, 81, 113-137	23.1	50
74	Roles of Na, Ca, and K channels in the generation of repetitive firing and rhythmic bursting in adrenal chromaffin cells. *Pflugers Archiv European Journal of Physiology*, **2018**, 470, 39-52	4.6	18
73	Regulatory subunits defy symmetry in functional modulation of BK channels. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 9923-9928	11.5	8
72	BK channel inhibition by strong extracellular acidification. *ELife*, **2018**, 7,	8.9	6
71	Knockout of the LRRC26 subunit reveals a primary role of LRRC26-containing BK channels in secretory epithelial cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E3739-E3747	11.5	23
70	Threading the biophysics of mammalian Slo1 channels onto structures of an invertebrate Slo1 channel. *Journal of General Physiology*, **2017**, 149, 985-1007	3.4	21
69	Engineering differential charge selectivity from a single structural template. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 12610-12612	11.5	
68	Cadmium-cysteine coordination in the BK inner pore region and its structural and functional implications. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 5237-42	11.5	23
67	NAVigating a transition from single action potential firing to bursting in chromaffin cells. *Journal of Physiology*, **2015**, 593, 761-2	3.9	1
66	Two classes of regulatory subunits coassemble in the same BK channel and independently regulate gating. *Nature Communications*, **2015**, 6, 8341	17.4	26
65	SLO3 auxiliary subunit LRRC52 controls gating of sperm KSPER currents and is critical for normal fertility. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 2599-604	11.5	39
64	Knockout of Slo2.2 enhances itch, abolishes KNa current, and increases action potential firing frequency in DRG neurons. *ELife*, **2015**, 4,	8.9	34

63	Functional regulation of BK potassium channels by β1 auxiliary subunits. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 4868-73	11.5	39
62	Paxilline inhibits BK channels by an almost exclusively closed-channel block mechanism. *Journal of General Physiology*, **2014**, 144, 415-40	3.4	91
61	Knockout of the BK β2 subunit abolishes inactivation of BK currents in mouse adrenal chromaffin cells and results in slow-wave burst activity. *Journal of General Physiology*, **2014**, 144, 275-95	3.4	43
60	The Ca2+-activated K+ current of human sperm is mediated by Slo3. *ELife*, **2014**, 3, e01438	8.9	62
59	Simultaneous knockout of Slo3 and CatSper1 abolishes all alkalization- and voltage-activated current in mouse spermatozoa. *Journal of General Physiology*, **2013**, 142, 305-13	3.4	39
58	Stereospecific binding of a disordered peptide segment mediates BK channel inactivation. *Nature*, **2012**, 485, 133-6	50.4	16
57	Barium ions selectively activate BK channels via the Ca2+-bowl site. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 11413-8	11.5	35
56	Cysteine scanning and modification reveal major differences between BK channels and Kv channels in the inner pore region. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 12161-6	11.5	62
55	LRRC52 (leucine-rich-repeat-containing protein 52), a testis-specific auxiliary subunit of the alkalization-activated Slo3 channel. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 19419-24	11.5	61
54	Deletion of the Slo3 gene abolishes alkalization-activated K+ current in mouse spermatozoa. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 5879-84	11.5	137
53	Glycine311, a determinant of paxilline block in BK channels: a novel bend in the BK S6 helix. *Journal of General Physiology*, **2010**, 135, 481-94	3.4	22
52	Inhibition of large-conductance Ca2+-activated K+ channels by nanomolar concentrations of Ag+. *Molecular Pharmacology*, **2010**, 78, 952-60	4.3	4
51	Block of mouse Slo1 and Slo3 K+ channels by CTX, IbTX, TEA, 4-AP and quinidine. *Channels*, **2010**, 4, 22-41	3	45
50	Interactions between beta subunits of the KCNMB family and Slo3: beta4 selectively modulates Slo3 expression and function. *PLoS ONE*, **2009**, 4, e6135	3.7	26
49	N-terminal inactivation domains of beta subunits are protected from trypsin digestion by binding within the antechamber of BK channels. *Journal of General Physiology*, **2009**, 133, 263-82	3.4	9
48	Closed-channel block of BK potassium channels by bbTBA requires partial activation. *Journal of General Physiology*, **2009**, 134, 409-36	3.4	33
47	Differential regulation of action potentials by inactivating and noninactivating BK channels in rat adrenal chromaffin cells. *Biophysical Journal*, **2009**, 97, 1832-42	2.9	31
46	Species-specific Differences among KCNMB3 BK beta3 auxiliary subunits: some beta3 N-terminal variants may be primate-specific subunits. *Journal of General Physiology*, **2008**, 132, 115-29	3.4	19

45	Mg2+-dependent regulation of BK channels: importance of electrostatics. *Journal of General Physiology*, **2008**, 131, 5-11	3.4	5
44	Gating rings formed by RCK domains: keys to gate opening. *Journal of General Physiology*, **2007**, 129, 101-7	3.4	26
43	BK channels with beta3a subunits generate use-dependent slow afterhyperpolarizing currents by an inactivation-coupled mechanism. *Journal of Neuroscience*, **2007**, 27, 4707-15	6.6	11
42	Slo3 K+ channels: voltage and pH dependence of macroscopic currents. *Journal of General Physiology*, **2006**, 128, 317-36	3.4	42
41	A limited access compartment between the pore domain and cytosolic domain of the BK channel. *Journal of Neuroscience*, **2006**, 26, 11833-43	6.6	18
40	Direct observation of a preinactivated, open state in BK channels with beta2 subunits. *Journal of General Physiology*, **2006**, 127, 119-31	3.4	22
39	pH-regulated Slo3 K+ channels: properties of unitary currents. *Journal of General Physiology*, **2006**, 128, 301-15	3.4	24
38	Empirical considerations regarding the use of ensemble-variance analysis of macroscopic currents. *Journal of Neuroscience Methods*, **2006**, 158, 121-32	3	16
37	Divalent cation sensitivity of BK channel activation supports the existence of three distinct binding sites. *Journal of General Physiology*, **2005**, 125, 273-86	3.4	113
36	Ligand-dependent activation of Slo family channels is defined by interchangeable cytosolic domains. *Journal of Neuroscience*, **2004**, 24, 5585-91	6.6	47
35	Redox-sensitive extracellular gates formed by auxiliary beta subunits of calcium-activated potassium channels. *Nature Structural and Molecular Biology*, **2003**, 10, 448-54	17.6	81
34	Inactivation of BK channels by the NH2 terminus of the beta2 auxiliary subunit: an essential role of a terminal peptide segment of three hydrophobic residues. *Journal of General Physiology*, **2003**, 121, 125-48	3.4	71
33	Multiple regulatory sites in large-conductance calcium-activated potassium channels. *Nature*, **2002**, 418, 880-4	50.4	310
32	Setting the stage for molecular dissection of the regulatory components of BK channels. *Journal of General Physiology*, **2002**, 120, 261-5	3.4	11
31	Steady-state and closed-state inactivation properties of inactivating BK channels. *Biophysical Journal*, **2002**, 82, 2448-65	2.9	21
30	Consequences of the stoichiometry of Slo1 alpha and auxiliary beta subunits on functional properties of large-conductance Ca2+-activated K+ channels. *Journal of Neuroscience*, **2002**, 22, 1550-61	6.6	104
29	Allosteric regulation of BK channel gating by Ca(2+) and Mg(2+) through a nonselective, low affinity divalent cation site. *Journal of General Physiology*, **2001**, 118, 607-36	3.4	123
28	Inactivation of BK channels mediated by the NH(2) terminus of the beta3b auxiliary subunit involves a two-step mechanism: possible separation of binding and blockade. *Journal of General Physiology*, **2001**, 117, 583-606	3.4	34

27	Gating properties conferred on BK channels by the beta3b auxiliary subunit in the absence of its NH(2)- and COOH termini. *Journal of General Physiology*, **2001**, 117, 607-28	3.4	28
26	Activation of BK channels in rat chromaffin cells requires summation of Ca(2+) influx from multiple Ca(2+) channels. *Journal of Neurophysiology*, **2000**, 84, 1123-35	3.2	61
25	Anticonvulsants but not general anesthetics have differential blocking effects on different T-type current variants. *Molecular Pharmacology*, **2000**, 58, 98-108	4.3	88
24	Rectification and rapid activation at low Ca2+ of Ca2+-activated, voltage-dependent BK currents: consequences of rapid inactivation by a novel beta subunit. *Journal of Neuroscience*, **2000**, 20, 4890-903	6.6	146
23	RINm5f cells express inactivating BK channels whereas HIT cells express noninactivating BK channels. *Journal of Neurophysiology*, **1999**, 81, 611-24	3.2	32
22	BK channel activation by brief depolarizations requires Ca2+ influx through L- and Q-type Ca2+ channels in rat chromaffin cells. *Journal of Neurophysiology*, **1999**, 81, 2267-78	3.2	86
21	Molecular basis for the inactivation of Ca2+- and voltage-dependent BK channels in adrenal chromaffin cells and rat insulinoma tumor cells. *Journal of Neuroscience*, **1999**, 19, 5255-64	6.6	235
20	Blockade of Ba2+ current through human alpha1E channels by two steroid analogs, (+)-ACN and (+)-ECN. *Neuropharmacology*, **1999**, 38, 843-55	5.5	10
19	Properties of Ba2+ currents arising from human alpha1E and alpha1Ebeta3 constructs expressed in HEK293 cells: physiology, pharmacology, and comparison to native T-type Ba2+ currents. *Neuropharmacology*, **1998**, 37, 957-72	5.5	37
18	Enantioselective blockade of T-type Ca2+ current in adult rat sensory neurons by a steroid that lacks gamma-aminobutyric acid-modulatory activity. *Molecular Pharmacology*, **1998**, 54, 918-27	4.3	44
17	The anesthetic steroid (+)-3alpha-hydroxy-5alpha-androstane-17beta-carbonitrile blocks N-, Q-, and R-type, but not L- and P-type, high voltage-activated Ca2+ current in hippocampal and dorsal root ganglion neurons of the rat. *Molecular Pharmacology*, **1998**, 54, 559-68	4.3	26
16	Pharmacological properties of T-type Ca2+ current in adult rat sensory neurons: effects of anticonvulsant and anesthetic agents. *Journal of Neurophysiology*, **1998**, 79, 240-52	3.2	277
15	A cysteine-rich domain defined by a novel exon in a slo variant in rat adrenal chromaffin cells and PC12 cells. *Journal of Biological Chemistry*, **1997**, 272, 11710-7	5.4	121
14	The cytosolic inactivation domains of BKi channels in rat chromaffin cells do not behave like simple, open-channel blockers. *Biophysical Journal*, **1997**, 73, 819-30	2.9	27
13	[Ca2+]i elevations detected by BK channels during Ca2+ influx and muscarine-mediated release of Ca2+ from intracellular stores in rat chromaffin cells. *Journal of Neuroscience*, **1996**, 16, 4344-59	6.6	53
12	Calcium-activated potassium channels in adrenal chromaffin cells. *Ion Channels*, **1996**, 4, 261-301		56
11	Calcium sensitivity of BK-type KCa channels determined by a separable domain. *Neuron*, **1994**, 13, 671-81	13.9	234
10	Activation of skeletal muscle nicotinic acetylcholine receptors. *Journal of Membrane Biology*, **1992**, 126, 195-217	2.3	38

9	Halothane reduces calcium currents in clonal (GH3) pituitary cells. *Annals of the New York Academy of Sciences*, **1991**, 625, 290-2	6.5	5
8	Neuromuscular blocking agents. *International Anesthesiology Clinics*, **1988**, 26, 288-301	0.6	28
7	Heterogeneous kinetic properties of acetylcholine receptor channels in Xenopus myocytes. *Journal of Physiology*, **1986**, 378, 119-40	3.9	60
6	A GABA-activated chloride-conductance not blocked by picrotoxin on spiny lobster neuromuscular preparations. *British Journal of Pharmacology*, **1986**, 87, 771-9	8.6	26
5	Comparison of excitatory currents activated by different transmitters on crustacean muscle. I. Acetylcholine-activated channels. *Journal of General Physiology*, **1983**, 81, 547-69	3.4	8
4	Blockade of cholinergic channels by chlorisondamine on a crustacean muscle. *Journal of Physiology*, **1983**, 339, 395-417	3.9	53
3	Different types of blockade of crustacean acetylcholine-induced currents. *Journal of Physiology*, **1983**, 339, 419-37	3.9	34
2	A glutamate-activated chloride conductance on a crustacean muscle. *Brain Research*, **1981**, 212, 481-8	3.7	44
1	The sensitivity of decapod foregut muscles to acetylcholine and glutamate. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **1980**, 138, 187-199	2.3	43