

# Ramon Latorre

## List of Publications by Year in descending order

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75  
papers

5,830  
citations

126907

33  
h-index

88630

70  
g-index

79  
all docs

79  
docs citations

79  
times ranked

4313  
citing authors

#	ARTICLE	IF	CITATIONS
1	Charybdotoxin, a protein inhibitor of single Ca <sup>2+</sup> -activated K <sup>+</sup> channels from mammalian skeletal muscle. <i>Nature</i> , 1985, 313, 316-318.	27.8	793
2	Acute Activation of Maxi-K Channels (hSlo) by Estradiol Binding to the $\beta$ -Subunit. <i>Science</i> , 1999, 285, 1929-1931.	12.6	479
3	Clues to understanding cold sensation: Thermodynamics and electrophysiological analysis of the cold receptor TRPM8. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 15494-15499.	7.1	324
4	A Hot-Sensing Cold Receptor: C-Terminal Domain Determines Thermosensation in Transient Receptor Potential Channels. <i>Journal of Neuroscience</i> , 2006, 26, 4835-4840.	3.6	276
5	Molecular Determinants of BK Channel Functional Diversity and Functioning. <i>Physiological Reviews</i> , 2017, 97, 39-87.	28.8	213
6	New Disguises for an Old Channel: MaxiK Channel $\beta$ -Subunits. <i>Physiology</i> , 2002, 17, 156-161.	3.1	204
7	ThermoTRP channels as modular proteins with allosteric gating. <i>Cell Calcium</i> , 2007, 42, 427-438.	2.4	197
8	Dissection of the components for PIP <sub>2</sub> activation and thermosensation in TRP channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 10246-10251.	7.1	192
9	Correlation between Charge Movement and Ionic Current during Slow Inactivation in Shaker K <sup>+</sup> Channels. <i>Journal of General Physiology</i> , 1997, 110, 579-589.	1.9	182
10	K <sup>+</sup> Channels: Function & Structural Overview. , 2012, 2, 2087-2149.		179
11	Structure & functional intimacies of transient receptor potential channels. <i>Quarterly Reviews of Biophysics</i> , 2009, 42, 201-246.	5.7	155
12	Gain-of-function mutation in the KCNMB1 potassium channel subunit is associated with low prevalence of diastolic hypertension. <i>Journal of Clinical Investigation</i> , 2004, 113, 1032-1039.	8.2	155
13	A BK (Slo1) channel journey from molecule to physiology. <i>Channels</i> , 2013, 7, 442-458.	2.8	143
14	Large conductance Ca <sup>2+</sup> -activated K <sup>+</sup> (BK) channel: Activation by Ca <sup>2+</sup> and voltage. <i>Biological Research</i> , 2006, 39, 385-401.	3.4	139
15	Probing a Ca <sup>2+</sup> -activated K <sup>+</sup> channel with quaternary ammonium ions. <i>Pflugers Archiv European Journal of Physiology</i> , 1988, 413, 118-126.	2.8	127
16	Differential Effects of $\beta$ <sup>1</sup> and $\beta$ <sup>2</sup> Subunits on BK Channel Activity. <i>Journal of General Physiology</i> , 2005, 125, 395-411.	1.9	127
17	Gain-of-function mutation in the KCNMB1 potassium channel subunit is associated with low prevalence of diastolic hypertension. <i>Journal of Clinical Investigation</i> , 2004, 113, 1032-1039.	8.2	110
18	Role of the S4 Segment in a Voltage-dependent Calcium-sensitive Potassium (hSlo) Channel. <i>Journal of Biological Chemistry</i> , 1998, 273, 32430-32436.	3.4	106

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19	Conduction, Blockade and Gating in a Ca <sup>2+</sup> -activated K <sup>+</sup> Channel Incorporated into Planar Lipid Bilayers. <i>Biophysical Journal</i> , 1984, 45, 73-76.	0.5	104
20	A Marriage of Convenience: $\hat{\Gamma}^2$ -Subunits and Voltage-dependent K <sup>+</sup> Channels. <i>Journal of Biological Chemistry</i> , 2007, 282, 24485-24489.	3.4	102
21	Modulation of BK channel voltage gating by different auxiliary $\hat{\Gamma}^2$ subunits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 18991-18996.	7.1	95
22	COUNTING CHANNELS: A TUTORIAL GUIDE ON ION CHANNEL FLUCTUATION ANALYSIS. <i>American Journal of Physiology - Advances in Physiology Education</i> , 2002, 26, 327-341.	1.6	93
23	Directionality of Temperature Activation in Mouse TRPA1 Ion Channel Can Be Inverted by Single-Point Mutations in Ankyrin Repeat Six. <i>Neuron</i> , 2014, 82, 1017-1031.	8.1	92
24	Thermally activated TRP channels: molecular sensors for temperature detection. <i>Physical Biology</i> , 2018, 15, 021001.	1.8	80
25	Modulation of the Shaker K <sup>+</sup> Channel Gating Kinetics by the S3â€“S4 Linker. <i>Journal of General Physiology</i> , 2000, 115, 193-208.	1.9	72
26	Molecular Determinants of Phosphatidylinositol 4,5-Bisphosphate (PI(4,5)P <sub>2</sub> ) Binding to Transient Receptor Potential V1 (TRPV1) Channels. <i>Journal of Biological Chemistry</i> , 2015, 290, 2086-2098.	3.4	65
27	Temperature and Voltage Coupling to Channel Opening in Transient Receptor Potential Melastatin 8 (TRPM8). <i>Journal of Biological Chemistry</i> , 2014, 289, 35438-35454.	3.4	57
28	Structural Determinants for Functional Coupling Between the $\hat{\Gamma}^2$ and $\hat{\Gamma}^{\pm}$ Subunits in the Ca <sup>2+</sup> -activated K <sup>+</sup> (BK) Channel. <i>Journal of General Physiology</i> , 2006, 127, 191-204.	1.9	56
29	SYMPOSIUM REVIEW: Allosteric interactions and the modular nature of the voltage- and Ca <sup>2+</sup> -activated (BK) channel. <i>Journal of Physiology</i> , 2010, 588, 3141-3148.	2.9	55
30	Pharmacological consequences of the coexpression of BK channel $\hat{\Gamma}^{\pm}$ and auxiliary $\hat{\Gamma}^2$ subunits. <i>Frontiers in Physiology</i> , 2014, 5, 383.	2.8	53
31	Allosterism and Structure in Thermally Activated Transient Receptor Potential Channels. <i>Annual Review of Biophysics</i> , 2016, 45, 371-398.	10.0	51
32	A Cool Channel in Cold Transduction. <i>Physiology</i> , 2011, 26, 273-285.	3.1	50
33	Molecular Coupling between Voltage Sensor and Pore Opening in the Arabidopsis Inward Rectifier K <sup>+</sup> Channel KAT1. <i>Journal of General Physiology</i> , 2003, 122, 459-469.	1.9	48
34	Intrinsic Electrostatic Potential in the BK Channel Pore: Role in Determining Single Channel Conductance and Block. <i>Journal of General Physiology</i> , 2008, 131, 147-161.	1.9	39
35	Gating of Thermally Activated Channels. <i>Current Topics in Membranes</i> , 2014, 74, 51-87.	0.9	35
36	S3b amino acid residues do not shuttle across the bilayer in voltage-dependent Shaker K <sup>+</sup> channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 5020-5025.	7.1	34

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37	Splicing of the rSlo Gene Affects the Molecular Composition and Drug Response of Ca <sup>2+</sup> -Activated K <sup>+</sup> Channels in Skeletal Muscle. PLoS ONE, 2012, 7, e40235.	2.5	34
38	Thermo-TRP Channels: Biophysics of Polymodal Receptors. Advances in Experimental Medicine and Biology, 2011, 704, 469-490.	1.6	31
39	Emerging Role of Calcium-Activated Potassium Channel in the Regulation of Cell Viability Following Potassium Ions Challenge in HEK293 Cells and Pharmacological Modulation. PLoS ONE, 2013, 8, e69551.	2.5	31
40	Zoledronic Acid Modulation of TRPV1 Channel Currents in Osteoblast Cell Line and Native Rat and Mouse Bone Marrow-Derived Osteoblasts: Cell Proliferation and Mineralization Effect. Cancers, 2019, 11, 206.	3.7	29
41	Molecular mechanism underlying $\hat{I}^2_1$ regulation in voltage- and calcium-activated potassium (BK) channels. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4809-4814.	7.1	27
42	Gating charge displacement in a monomeric voltage-gated proton (H <sup>v</sup> ) channel. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 9240-9245.	7.1	27
43	A folding reaction at the C-terminal domain drives temperature sensing in TRPM8 channels. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20298-20304.	7.1	21
44	The voltage sensor is responsible for $\hat{I}^2_1$ pH dependence in H <sup>v</sup> 1 channels. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
45	The syndromic deafness mutation G12R impairs fast and slow gating in Cx26 hemichannels. Journal of General Physiology, 2018, 150, 697-711.	1.9	19
46	Pore accessibility during C-type inactivation in Shaker K <sup>+</sup> channels. FEBS Letters, 1998, 429, 375-380.	2.8	18
47	Hydrophobic interaction between contiguous residues in the S6 transmembrane segment acts as a stimuli integration node in the BK channel. Journal of General Physiology, 2015, 145, 61-74.	1.9	18
48	Structure-Driven Pharmacology of Transient Receptor Potential Channel Vanilloid 1. Molecular Pharmacology, 2016, 90, 300-308.	2.3	18
49	The enduring legacy of the "constant-field equation" in membrane ion transport. Journal of General Physiology, 2017, 149, 911-920.	1.9	18
50	Demonstration of ion channel synthesis by isolated squid giant axon provides functional evidence for localized axonal membrane protein translation. Scientific Reports, 2018, 8, 2207.	3.3	17
51	Voltage sensor of ion channels and enzymes. Biophysical Reviews, 2012, 4, 1-15.	3.2	16
52	The first transmembrane domain (TM1) of $\hat{I}^2_2$ subunit binds to the transmembrane domain S1 of $\hat{I}^2_1$ subunit in BK potassium channels. FEBS Letters, 2012, 586, 2287-2293.	2.8	15
53	Biophysical analysis of thermosensitive TRP channels with a special focus on the cold receptor TRPM8. Temperature, 2015, 2, 188-200.	3.0	15
54	$\hat{I}^2_1$ subunit-induced structural rearrangements of the Ca <sup>2+</sup> - and voltage-activated K <sup>+</sup> (BK) channel. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E3231-9.	7.1	14

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55	The molecular nature of the $17\beta$ -Estradiol binding site in the voltage- and $Ca^{2+}$ -activated $K^+$ (BK) channel $\beta 1$ subunit. <i>Scientific Reports</i> , 2019, 9, 9965.	3.3	14
56	Charged Residues at the First Transmembrane Region Contribute to the Voltage Dependence of the Slow Gate of Connexins. <i>Journal of Biological Chemistry</i> , 2016, 291, 15740-15752.	3.4	13
57	Calcium-driven regulation of voltage-sensing domains in BK channels. <i>ELife</i> , 2019, 8, .	6.0	13
58	BK in Double-Membrane Organelles: A Biophysical, Pharmacological, and Functional Survey. <i>Frontiers in Physiology</i> , 2021, 12, 761474.	2.8	13
59	Bisphosphonates Targeting Ion Channels and Musculoskeletal Effects. <i>Frontiers in Pharmacology</i> , 2022, 13, 837534.	3.5	13
60	Proton channel models. <i>Channels</i> , 2014, 8, 180-192.	2.8	12
61	Mechanism of voltage sensing in $Ca^{2+}$ - and voltage-activated $K^+$ (BK) channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	12
62	Voltage-gated proton ( $H^+$ ) channels, a singular voltage sensing domain. <i>FEBS Letters</i> , 2015, 589, 3471-3478.	2.8	11
63	Calcium binding and voltage gating in Cx46 hemichannels. <i>Scientific Reports</i> , 2017, 7, 15851.	3.3	10
64	Determination of the Stoichiometry between $\beta 1$ - and $\beta 2$ Subunits of the BK Channel Using LRET. <i>Biophysical Journal</i> , 2018, 114, 2493-2497.	0.5	9
65	Expression of $H^+$ proton channels in myeloid-derived suppressor cells (MDSC) and its potential role in T cell regulation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2104453119.	7.1	9
66	TRPM8 Channel Promotes the Osteogenic Differentiation in Human Bone Marrow Mesenchymal Stem Cells. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 592946.	3.7	8
67	Profile of David Julius and Ardem Patapoutian: 2021 Nobel Laureates in Physiology or Medicine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	7
68	Thermodynamic and structural basis of temperature-dependent gating in TRP channels. <i>Biochemical Society Transactions</i> , 2021, 49, 2211-2219.	3.4	4
69	Biophysical and Molecular Features of Thermosensitive TRP Channels Involved in Sensory Transduction. , 2015, , 1-39.		4
70	The Membrane Cholesterol Modulates the Interaction Between $17\beta$ -Estradiol and the BK Channel. <i>Frontiers in Pharmacology</i> , 2021, 12, 687360.	3.5	2
71	Voltage and Temperature Gating of ThermoTRP Channels. <i>Frontiers in Neuroscience</i> , 2006, , 287-302.	0.0	2
72	Signal Transduction-Dependent Channels. , 2013, , 81-107.		1

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73	Methods for Investigating TRP Channel Gating. Methods in Molecular Biology, 2019, 1987, 167-185.	0.9	1
74	Signal Transduction-Dependent Channels. , 2016, , 85-112.		0
75	Signal Transduction-Dependent Channels. , 2015, , 1-28.		0