Luis G Cuello

List of Publications by Citations

35 papers	3,006 citations	21 h-index	37 g-index
37 ext. papers	3,293 ext. citations	9.8 avg, IF	4.92 L-index

#	Paper	IF	Citations
35	Structural rearrangements underlying K+-channel activation gating. *Science*, **1999**, 285, 73-8	33.3	511
34	Structural mechanism of C-type inactivation in K(+) channels. *Nature*, **2010**, 466, 203-8	50.4	370
33	Molecular determinants of gating at the potassium-channel selectivity filter. *Nature Structural and Molecular Biology*, **2006**, 13, 311-8	17.6	355
32	Three-dimensional architecture and gating mechanism of a K+ channel studied by EPR spectroscopy. *Nature Structural Biology*, **1998**, 5, 459-69		263
31	Structural basis for the coupling between activation and inactivation gates in K(+) channels. *Nature*, **2010**, 466, 272-5	50.4	227
30	pH-dependent gating in the Streptomyces lividans K+ channel. *Biochemistry*, **1998**, 37, 3229-36	3.2	225
29	Molecular architecture of full-length KcsA: role of cytoplasmic domains in ion permeation and activation gating. *Journal of General Physiology*, **2001**, 117, 165-80	3.4	219
28	Molecular architecture of the KvAP voltage-dependent K+ channel in a lipid bilayer. *Science*, **2004**, 306, 491-5	33.3	202
27	Detection of the opening of the bundle crossing in KcsA with fluorescence lifetime spectroscopy reveals the existence of two gates for ion conduction. *Journal of General Physiology*, **2006**, 128, 569-81	3.4	87
26	Mechanism of activation gating in the full-length KcsA K+ channel. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 11896-9	11.5	60
25	The gating cycle of a K channel at atomic resolution. *ELife*, **2017**, 6,	8.9	57
24	Thermodynamic coupling between activation and inactivation gating in potassium channels revealed by free energy molecular dynamics simulations. *Journal of General Physiology*, **2011**, 138, 571-80	3.4	47
23	A molecular mechanism for proton-dependent gating in KcsA. *FEBS Letters*, **2010**, 584, 1126-32	3.8	42
22	Rapid constriction of the selectivity filter underlies C-type inactivation in the KcsA potassium channel. *Journal of General Physiology*, **2018**, 150, 1408-1420	3.4	40
21	Thioredoxin reverses age-related hypertension by chronically improving vascular redox and restoring eNOS function. *Science Translational Medicine*, **2017**, 9,	17.5	36
20	Inverted allosteric coupling between activation and inactivation gates in K channels. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 5426-5431	11.5	31
19	Hysteresis of KcsA potassium channel's activation- deactivation gating is caused by structural changes at the channel's selectivity filter. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 3234-3239	11.5	27

18	Structural dynamics of the magnesium-bound conformation of CorA in a lipid bilayer. *Structure*, **2010**, 18, 868-78	5.2	26
17	A lipid site shapes the agonist response of a pentameric ligand-gated ion channel. *Nature Chemical Biology*, **2019**, 15, 1156-1164	11.7	24
16	Functional analysis and regulation of purified connexin hemichannels. *Frontiers in Physiology*, **2014**, 5, 71	4.6	22
15	Electrostatic interaction of a K+ channel RCK domain with charged membrane surfaces. *Biochemistry*, **2005**, 44, 62-71	3.2	21
14	Activation of the mechanosensitive ion channel MscL by mechanical stimulation of supported Droplet-Hydrogel bilayers. *Scientific Reports*, **2017**, 7, 45180	4.9	20
13	Design and characterization of a constitutively open KcsA. *FEBS Letters*, **2010**, 584, 1133-8	3.8	20
12	Functional hemichannels formed by human connexin 26 expressed in bacteria. *Bioscience Reports*, **2015**, 35,	4.1	11
11	Voltage-dependent BK and Hv1 channels expressed in non-excitable tissues: New therapeutics opportunities as targets in human diseases. *Pharmacological Research*, **2015**, 101, 56-64	10.2	11
10	An improved method for the cost-effective expression and purification of large quantities of KcsA. *Protein Expression and Purification*, **2016**, 127, 53-60	2	11
9	Structure, function, and ion-binding properties of a K channel stabilized in the 2,4-ion-bound configuration. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 16829-16834	11.5	10
8	Inhibition by Commercial Aminoglycosides of Human Connexin Hemichannels Expressed in Bacteria. *Molecules*, **2017**, 22,	4.8	9
7	An Escherichia coli-Based Assay to Assess the Function of Recombinant Human Hemichannels. *SLAS Discovery*, **2017**, 22, 135-143	3.4	8
6	A Simple Assay to Evaluate the Function of Human Connexin Hemichannels Expressed in Escherichia coli that Can Be Used for Drug Discovery and Mutant Analysis. *Current Protocols in Pharmacology*, **2019**, 87, e68	4.1	3
5	A Cell-Based Assay to Assess Hemichannel Function. *Yale Journal of Biology and Medicine*, **2017**, 90, 87-95	2.4	3
4	CW-EPR Spectroscopy and Site-Directed Spin Labeling to Study the Structural Dynamics of Ion Channels. *Methods in Molecular Biology*, **2018**, 1684, 279-288	1.4	3
3	A cost-effective protocol for the over-expression and purification of fully-functional and more stable Erwinia chrysanthemi ligand-gated ion channel. *Protein Expression and Purification*, **2017**, 133, 177-186	2	2
2	The Selectivity Filter Is Involved in the U-Type Inactivation Process of Kv2.1 and Kv3.1 Channels. *Biophysical Journal*, **2020**, 118, 2612-2620	2.9	2
1	TOK channels use the two gates in classical K channels to achieve outward rectification. *FASEB Journal*, **2020**, 34, 8902-8919	0.9	1