

# Eduardo Perozo

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91 papers	7,813 citations	44 h-index	88 g-index
121 ext. papers	8,668 ext. citations	11.9 avg, IF	5.9 L-index

#	Paper	IF	Citations
91	The conformational cycle of prestin underlies outer-hair cell electromotility. <i>Nature</i> , <b>2021</b> ,	50.4	3
90	Direct activation of the proton channel by albumin leads to human sperm capacitation and sustained release of inflammatory mediators by neutrophils. <i>Nature Communications</i> , <b>2021</b> , 12, 3855	17.4	6
89	Computational study of non-conductive selectivity filter conformations and C-type inactivation in a voltage-dependent potassium channel. <i>Journal of General Physiology</i> , <b>2021</b> , 153,	3.4	5
88	Mechanism of C-type inactivation in the hERG potassium channel. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	8
87	Electromechanical coupling in the hyperpolarization-activated K channel KAT1. <i>Nature</i> , <b>2020</b> , 583, 145-149	50.4	20
86	Real time dynamics of Gating-Related conformational changes in CorA. <i>ELife</i> , <b>2019</b> , 8,	8.9	8
85	Molecular basis of force-from-lipids gating in the mechanosensitive channel MscS. <i>ELife</i> , <b>2019</b> , 8,	8.9	40
84	Never at rest: insights into the conformational dynamics of ion channels from cryo-electron microscopy. <i>Journal of Physiology</i> , <b>2018</b> , 596, 1107-1119	3.9	18
83	Rapid constriction of the selectivity filter underlies C-type inactivation in the KcsA potassium channel. <i>Journal of General Physiology</i> , <b>2018</b> , 150, 1408-1420	3.4	40
82	Role of human Hv1 channels in sperm capacitation and white blood cell respiratory burst established by a designed peptide inhibitor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E11847-E11856	11.5	24
81	Probing the Effects of Gating on the Ion Occupancy of the K Channel Selectivity Filter Using Two-Dimensional Infrared Spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 8837-8845	16.4	24
80	Toward a structural blueprint for bilayer-mediated channel mechanosensitivity. <i>Channels</i> , <b>2017</b> , 11, 91-93		18
79	Chemical substitutions in the selectivity filter of potassium channels do not rule out constricted-like conformations for C-type inactivation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 11145-11150	11.5	23
78	Structural Dynamics of the MscL C-terminal Domain. <i>Scientific Reports</i> , <b>2017</b> , 7, 17229	4.9	9
77	Towards a Structural View of Drug Binding to hERG K Channels. <i>Trends in Pharmacological Sciences</i> , <b>2017</b> , 38, 899-907	13.2	37
76	The gating cycle of a K channel at atomic resolution. <i>ELife</i> , <b>2017</b> , 6,	8.9	57
75	Instantaneous ion configurations in the K <sup>+</sup> ion channel selectivity filter revealed by 2D IR spectroscopy. <i>Science</i> , <b>2016</b> , 353, 1040-1044	33.3	142

74	The role of MscL amphipathic N terminus indicates a blueprint for bilayer-mediated gating of mechanosensitive channels. <i>Nature Communications</i> , <b>2016</b> , 7, 11984	17.4	54
73	From Nanodiscs to Isotropic Bicelles: A Procedure for Solution Nuclear Magnetic Resonance Studies of Detergent-Sensitive Integral Membrane Proteins. <i>Structure</i> , <b>2016</b> , 24, 1830-1841	5.2	21
72	Cryo-EM Structures of the Magnesium Channel CorA Reveal Symmetry Break upon Gating. <i>Cell</i> , <b>2016</b> , 164, 747-56	56.2	87
71	Multi-ion free energy landscapes underscore the microscopic mechanism of ion selectivity in the KcsA channel. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , <b>2016</b> , 1858, 1722-32	3.8	25
70	Conformational Chaperones for Structural Studies of Membrane Proteins Using Antibody Phage Display with Nanodiscs. <i>Structure</i> , <b>2016</b> , 24, 300-9	5.2	35
69	Resting state of the human proton channel dimer in a lipid bilayer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, E5926-35	11.5	51
68	Biomolecular DNP-Supported NMR Spectroscopy using Site-Directed Spin Labeling. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 12971-7	4.8	59
67	Structural mechanism of voltage-dependent gating in an isolated voltage-sensing domain. <i>Nature Structural and Molecular Biology</i> , <b>2014</b> , 21, 244-52	17.6	173
66	Structural basis of lipid-driven conformational transitions in the KvAP voltage-sensing domain. <i>Nature Structural and Molecular Biology</i> , <b>2014</b> , 21, 160-6	17.6	47
65	xMDFF: molecular dynamics flexible fitting of low-resolution X-ray structures. <i>Acta Crystallographica Section D: Biological Crystallography</i> , <b>2014</b> , 70, 2344-55		38
64	Conformational dynamics at the inner gate of KcsA during activation. <i>Biochemistry</i> , <b>2014</b> , 53, 2557-9	3.2	16
63	Molecular mechanism of Mg <sup>2+</sup> -dependent gating in CorA. <i>Nature Communications</i> , <b>2014</b> , 5, 3590	17.4	39
62	Dynamics transitions at the outer vestibule of the KcsA potassium channel during gating. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 1831-6	11.5	44
61	A repulsion mechanism explains magnesium permeation and selectivity in CorA. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 3002-7	11.5	20
60	Recovery from slow inactivation in K <sup>+</sup> channels is controlled by water molecules. <i>Nature</i> , <b>2013</b> , 501, 121-4	50.4	138
59	Importance of lipid-pore loop interface for potassium channel structure and function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 13008-13	11.5	42
58	Binding of the CYK-4 subunit of the centralspindlin complex induces a large scale conformational change in the kinesin subunit. <i>Journal of Biological Chemistry</i> , <b>2013</b> , 288, 19785-95	5.4	11
57	An emerging consensus on voltage-dependent gating from computational modeling and molecular dynamics simulations. <i>Journal of General Physiology</i> , <b>2012</b> , 140, 587-94	3.4	141

56	Symmetry-constrained analysis of pulsed double electron-electron resonance (DEER) spectroscopy reveals the dynamic nature of the KcsA activation gate. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 16360-9	16.4	30
55	Mechanism of Cd <sup>2+</sup> coordination during slow inactivation in potassium channels. <i>Structure</i> , <b>2012</b> , 20, 1332-42	5.2	22
54	A multipoint hydrogen-bond network underlying KcsA C-type inactivation. <i>Biophysical Journal</i> , <b>2011</b> , 100, 2387-93	2.9	81
53	Mechanism of activation gating in the full-length KcsA K <sup>+</sup> channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 11896-9	11.5	60
52	Thermodynamic coupling between activation and inactivation gating in potassium channels revealed by free energy molecular dynamics simulations. <i>Journal of General Physiology</i> , <b>2011</b> , 138, 571-80	3.4	47
51	On the structural basis of modal gating behavior in K(+) channels. <i>Nature Structural and Molecular Biology</i> , <b>2011</b> , 18, 67-74	17.6	57
50	Molecular coupling in the human ether-a-go-go-related gene-1 (hERG1) K <sup>+</sup> channel inactivation pathway. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 39091-9	5.4	11
49	Protein conformational dynamics in the mechanism of HIV-1 protease catalysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 20982-7	11.5	77
48	Structural basis for the coupling between activation and inactivation gates in K(+) channels. <i>Nature</i> , <b>2010</b> , 466, 272-5	50.4	227
47	Structural mechanism of C-type inactivation in K(+) channels. <i>Nature</i> , <b>2010</b> , 466, 203-8	50.4	370
46	The activated state of a sodium channel voltage sensor in a membrane environment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 5435-40	11.5	41
45	Up a hydrophobic creek with a short paddle. <i>Cell</i> , <b>2010</b> , 142, 515-6	56.2	3
44	Structural dynamics of the magnesium-bound conformation of CorA in a lipid bilayer. <i>Structure</i> , <b>2010</b> , 18, 868-78	5.2	26
43	A molecular mechanism for proton-dependent gating in KcsA. <i>FEBS Letters</i> , <b>2010</b> , 584, 1126-32	3.8	42
42	Design and characterization of a constitutively open KcsA. <i>FEBS Letters</i> , <b>2010</b> , 584, 1133-8	3.8	20
41	A designer ligand specific for Kv1.3 channels from a scorpion neurotoxin-based library. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 22211-6	11.5	55
40	Distinct gate conformations of the ABC transporter BtuCD revealed by electron spin resonance spectroscopy and chemical cross-linking. <i>FEBS Letters</i> , <b>2009</b> , 583, 266-70	3.8	32
39	Crystal structure of full-length KcsA in its closed conformation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 6644-9	11.5	191

38	Dynamics of "flap" structures in three HIV-1 protease/inhibitor complexes probed by total chemical synthesis and pulse-EPR spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2009</b> , 131, 884-5	16.4	34
37	Structural dynamics of an isolated voltage-sensor domain in a lipid bilayer. <i>Structure</i> , <b>2008</b> , 16, 398-409	5.2	80
36	Structural refinement of membrane proteins by restrained molecular dynamics and solvent accessibility data. <i>Biophysical Journal</i> , <b>2008</b> , 95, 5349-61	2.9	21
35	A structural mechanism for MscS gating in lipid bilayers. <i>Science</i> , <b>2008</b> , 321, 1210-4	33.3	143
34	Three-dimensional architecture of membrane-embedded MscS in the closed conformation. <i>Journal of Molecular Biology</i> , <b>2008</b> , 378, 55-70	6.5	71
33	An optimized purification and reconstitution method for the MscS channel: strategies for spectroscopical analysis. <i>Biochemistry</i> , <b>2007</b> , 46, 6766-73	3.2	38
32	Ion conduction through MscS as determined by electrophysiology and simulation. <i>Biophysical Journal</i> , <b>2007</b> , 92, 886-902	2.9	105
31	Molecular driving forces determining potassium channel slow inactivation. <i>Nature Structural and Molecular Biology</i> , <b>2007</b> , 14, 1062-9	17.6	190
30	A quantitative description of KcsA gating II: single-channel currents. <i>Journal of General Physiology</i> , <b>2007</b> , 130, 479-96	3.4	80
29	A quantitative description of KcsA gating I: macroscopic currents. <i>Journal of General Physiology</i> , <b>2007</b> , 130, 465-78	3.4	89
28	Asymmetry in the structure of the ABC transporter-binding protein complex BtuCD-BtuF. <i>Science</i> , <b>2007</b> , 317, 1387-90	33.3	239
27	Detection of the opening of the bundle crossing in KcsA with fluorescence lifetime spectroscopy reveals the existence of two gates for ion conduction. <i>Journal of General Physiology</i> , <b>2006</b> , 128, 569-81	3.4	87
26	Gating prokaryotic mechanosensitive channels. <i>Nature Reviews Molecular Cell Biology</i> , <b>2006</b> , 7, 109-19	48.7	102
25	Molecular determinants of gating at the potassium-channel selectivity filter. <i>Nature Structural and Molecular Biology</i> , <b>2006</b> , 13, 311-8	17.6	355
24	Voltage-dependent gating at the KcsA selectivity filter. <i>Nature Structural and Molecular Biology</i> , <b>2006</b> , 13, 319-22	17.6	117
23	Explicit treatment of spin labels in modeling of distance constraints from dipolar EPR and DEER. <i>Journal of the American Chemical Society</i> , <b>2005</b> , 127, 9334-5	16.4	102
22	Molecular architecture of the KvAP voltage-dependent K <sup>+</sup> channel in a lipid bilayer. <i>Science</i> , <b>2004</b> , 306, 491-5	33.3	202
21	The voltage sensor and the gate in ion channels. <i>Advances in Protein Chemistry</i> , <b>2003</b> , 63, 211-41		29

20	Structure and mechanism in prokaryotic mechanosensitive channels. <i>Current Opinion in Structural Biology</i> , <b>2003</b> , 13, 432-42	8.1	144
19	New structural perspectives on K(+) channel gating. <i>Structure</i> , <b>2002</b> , 10, 1027-9	5.2	26
18	Open channel structure of MscL and the gating mechanism of mechanosensitive channels. <i>Nature</i> , <b>2002</b> , 418, 942-8	50.4	501
17	Physical principles underlying the transduction of bilayer deformation forces during mechanosensitive channel gating. <i>Nature Structural Biology</i> , <b>2002</b> , 9, 696-703		531
16	Reactions of cysteines substituted in the amphipathic N-terminal tail of a bacterial potassium channel with hydrophilic and hydrophobic maleimides. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2002</b> , 99, 11605-10	11.5	22
15	Structural biology. Force and voltage sensors in one structure. <i>Science</i> , <b>2002</b> , 298, 1562-3	33.3	23
14	Structure of the KcsA channel intracellular gate in the open state. <i>Nature Structural Biology</i> , <b>2001</b> , 8, 883-7		175
13	Site-directed spin-labeling analysis of reconstituted MscL in the closed state. <i>Journal of General Physiology</i> , <b>2001</b> , 118, 193-206	3.4	89
12	Molecular architecture of full-length KcsA: role of cytoplasmic domains in ion permeation and activation gating. <i>Journal of General Physiology</i> , <b>2001</b> , 117, 165-80	3.4	219
11	Calculation of rigid-body conformational changes using restraint-driven Cartesian transformations. <i>Biophysical Journal</i> , <b>2001</b> , 81, 2530-46	2.9	20
10	Structure and packing orientation of transmembrane segments in voltage-dependent channels. Lessons from perturbation analysis. <i>Journal of General Physiology</i> , <b>2000</b> , 115, 29-32	3.4	5
9	Structural dynamics of the <i>Streptomyces lividans</i> K <sup>+</sup> channel (SKC1): secondary structure characterization from FTIR spectroscopy. <i>FEBS Letters</i> , <b>1998</b> , 423, 205-12	3.8	39
8	Three-dimensional architecture and gating mechanism of a K <sup>+</sup> channel studied by EPR spectroscopy. <i>Nature Structural Biology</i> , <b>1998</b> , 5, 459-69		263
7	pH-dependent gating in the <i>Streptomyces lividans</i> K <sup>+</sup> channel. <i>Biochemistry</i> , <b>1998</b> , 37, 3229-36	3.2	225
6	Shedding light on voltage-dependent gating. <i>Journal of General Physiology</i> , <b>1998</b> , 112, 373-6	3.4	1
5	Structural dynamics of the <i>Streptomyces lividans</i> K <sup>+</sup> channel (SKC1): oligomeric stoichiometry and stability. <i>Biochemistry</i> , <b>1997</b> , 36, 10343-52	3.2	131
4	Chemical modification of squid axon K <sup>+</sup> channel -SH groups with the organic mercurial compound p-hydroxymercuriphenylsulfonic acid (PHMPS). <i>Pflugers Archiv European Journal of Physiology</i> , <b>1994</b> , 428, 315-22	4.6	5
3	Gating currents from a nonconducting mutant reveal open-closed conformations in Shaker K <sup>+</sup> channels. <i>Neuron</i> , <b>1993</b> , 11, 353-8	13.9	274

2	Phosphorylation of K+ channels in the squid giant axon. A mechanistic analysis. <i>Journal of Bioenergetics and Biomembranes</i> , <b>1991</b> , 23, 599-613	3.7	16
1	Phosphorylation affects voltage gating of the delayed rectifier K+ channel by electrostatic interactions. <i>Neuron</i> , <b>1990</b> , 5, 685-90	13.9	89