Christopher A Ahern

List of Publications by Year
in descending order

55 papers	2,873 citations	218592 26 h-index	182361 51 g-index
60 all docs	60 docs citations	60 times ranked	3601 citing authors

#	Article	IF	Citations
1	The eEF2 Kinase Confers Resistance to Nutrient Deprivation by Blocking Translation Elongation. Cell, 2013, 153, 1064-1079.	13.5	348
2	The hitchhikerâ€™s guide to the voltage-gated sodium channel galaxy. Journal of General Physiology, 2016, 147, 1-24.	0.9	299
3	Electrostatic Contributions of Aromatic Residues in the Local Anesthetic Receptor of Voltage-Gated Sodium Channels. Circulation Research, 2008, 102, 86-94.	2.0	162
4	Focused Electric Field across the Voltage Sensor of Potassium Channels. Neuron, 2005, 48, 25-29.	3.8	147
5	Structural basis of Î±-scorpion toxin action on Na _v channels. Science, 2019, 363, .	6.0	139
6	Crystallographic basis for calcium regulation of sodium channels. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 3558-3563.	3.3	128
7	Contributions of counter-charge in a potassium channel voltage-sensor domain. Nature Chemical Biology, 2011, 7, 617-623.	3.9	95
8	Modulation of the Cardiac Sodium Channel Na V 1.5 by Fyn, a Src Family Tyrosine Kinase. Circulation Research, 2005, 96, 991-998.	2.0	93
9	Engineered transfer RNAs for suppression of premature termination codons. Nature Communications, 2019, 10, 822.	5.8	86
10	HACE1 reduces oxidative stress and mutant Huntingtin toxicity by promoting the NRF2 response. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3032-3037.	3.3	85
11	A Cation-Ï€ Interaction Discriminates among Sodium Channels That Are Either Sensitive or Resistant to Tetrodotoxin Block. Journal of Biological Chemistry, 2007, 282, 8044-8051.	1.6	84
12	Investigating the Putative Glycine Hinge in Shaker Potassium Channel. Journal of General Physiology, 2005, 126, 213-226.	0.9	83
13	Specificity of Charge-carrying Residues in the Voltage Sensor of Potassium Channels. Journal of General Physiology, 2004, 123, 205-216.	0.9	81
14	Stirring up controversy with a voltage sensor paddle. Trends in Neurosciences, 2004, 27, 303-307.	4.2	81
15	Unnatural Amino Acids as Probes of Ligand-Receptor Interactions and Their Conformational Consequences. Annual Review of Pharmacology and Toxicology, 2013, 53, 211-229.	4.2	68
16	Local anesthetic inhibition of a bacterial sodium channel. Journal of General Physiology, 2012, 139, 507-516.	0.9	67
17	A Cationâ€“Ï€ Interaction between Extracellular TEA and an Aromatic Residue in Potassium Channels. Journal of General Physiology, 2006, 128, 649-657.	0.9	58
18	Seeing the Forest through the Trees: towards a Unified View on Physiological Calcium Regulation of Voltage-Gated Sodium Channels. Biophysical Journal, 2012, 103, 2243-2251.	0.2	52

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19	Intermediate state trapping of a voltage sensor. Journal of General Physiology, 2012, 140, 635-652.	0.9	50
20	A Double Tyrosine Motif in the Cardiac Sodium Channel Domain III-IV Linker Couples Calcium-dependent Calmodulin Binding to Inactivation Gating. Journal of Biological Chemistry, 2009, 284, 33265-33274.	1.6	49
21	Î³1 Subunit Interactions within the Skeletal Muscle L-type Voltage-gated Calcium Channels. Journal of Biological Chemistry, 2003, 278, 1212-1219.	1.6	41
22	Calcium Block of Single Sodium Channels: Role of a Pore-Lining Aromatic Residue. Biophysical Journal, 2007, 93, 2341-2349.	0.2	41
23	Asymmetric functional contributions of acidic and aromatic side chains in sodium channel voltage-sensor domains. Journal of General Physiology, 2014, 143, 645-656.	0.9	38
24	NÎ·-Substituted Arginyl Peptide Inhibitors of Protein Arginine N-Methyltransferases. ACS Chemical Biology, 2010, 5, 1053-1063.	1.6	34
25	Incorporation of Non-Canonical Amino Acids. Advances in Experimental Medicine and Biology, 2015, 869, 119-151.	0.8	34
26	Atomic determinants of BK channel activation by polyunsaturated fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13905-13910.	3.3	31
27	Biophysical costs associated with tetrodotoxin resistance in the sodium channel pore of the garter snake, Thamnophis sirtalis. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2011, 197, 33-43.	0.7	30
28	Conformational dynamics in TRPV1 channels reported by an encoded coumarin amino acid. ELife, 2017, 6, .	2.8	25
29	Rapid evolution of a voltage-gated sodium channel gene in a lineage of electric fish leads to a persistent sodium current. PLoS Biology, 2018, 16, e2004892.	2.6	24
30	Contributions of Conserved Residues at the Gating Interface of Glycine Receptors. Journal of Biological Chemistry, 2011, 286, 35129-35136.	1.6	23
31	Atomic mutagenesis in ion channels with engineered stoichiometry. ELife, 2016, 5, .	2.8	23
32	Cellular encoding of Cy dyes for single-molecule imaging. ELife, 2016, 5, .	2.8	23
33	New insights into the therapeutic inhibition of voltage-gated sodium channels. Channels, 2008, 2, 1-3.	1.5	18
34	Molecular characterization of a two-domain form of the neuronal voltage-gated P/Q-type calcium channel Î±12.1 subunit. FEBS Letters, 2002, 532, 300-308.	1.3	17
35	Basis for allosteric open-state stabilization of voltage-gated potassium channels by intracellular cations. Journal of General Physiology, 2012, 140, 495-511.	0.9	17
36	Molecular and functional determinants of local anesthetic inhibition of NaChBac. Channels, 2012, 6, 403-406.	1.5	17

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37	Divergent Cl- and H+ pathways underlie transport coupling and gating in CLC exchangers and channels. ELife, 2020, 9, .	2.8	17
38	What activates inactivation?. Journal of General Physiology, 2013, 142, 97-100.	0.9	15
39	An electrostatic interaction between TEA and an introduced pore aromatic drives spring-in-the-door inactivation in Shaker potassium channels. Journal of General Physiology, 2009, 134, 461-469.	0.9	14
40	HIFs: New arginine mimic inhibitors of the Hv1 channel with improved VSDâ€“ligand interactions. Journal of General Physiology, 2021, 153, .	0.9	14
41	Replacing voltage sensor arginines with citrulline provides mechanistic insight into charge versus shape. Journal of General Physiology, 2018, 150, 1017-1024.	0.9	13
42	Orthogonality of Pyrrolysine tRNA in the Xenopus oocyte. Scientific Reports, 2018, 8, 5166.	1.6	12
43	Removal of Mg2+inhibition of cardiac ryanodine receptor by palmitoyl coenzyme A. FEBS Letters, 1994, 352, 285-290.	1.3	11
44	Cross-kingdom auxiliary subunit modulation of a voltage-gated sodium channel. Journal of Biological Chemistry, 2018, 293, 4981-4992.	1.6	11
45	Main-chain mutagenesis reveals intrahelical coupling in an ion channel voltage-sensor. Nature Communications, 2018, 9, 5055.	5.8	11
46	Mining Protein Evolution for Insights into Mechanisms of Voltage-Dependent Sodium Channel Auxiliary Subunits. Handbook of Experimental Pharmacology, 2017, 246, 33-49.	0.9	10
47	Blockade of Permeation by Potassium but Normal Gating of the G628S Nonconducting hERG Channel Mutant. Biophysical Journal, 2011, 101, 662-670.	0.2	8
48	A Conserved Residue Cluster That Governs Kinetics of ATP-dependent Gating of Kir6.2 Potassium Channels. Journal of Biological Chemistry, 2015, 290, 15450-15461.	1.6	8
49	Ketamine, at Clinical Concentrations, Does Not Alter the Function of Cardiac Sarcoplasmic Reticulum Calcium Release Channels. Anesthesia and Analgesia, 1995, 81, 849-854.	1.1	7
50	Atomâ€byâ€atom engineering of voltageâ€gated ion channels: Magnified insights into function and pharmacology. Journal of Physiology, 2015, 593, 2627-2634.	1.3	7
51	Role of a conserved ion-binding site tyrosine in ion selectivity of the Na+/K+ pump. Journal of General Physiology, 2022, 154, .	0.9	7
52	Expression-dependent pharmacology of transient receptor potential vanilloid subtype 1 channels inXenopus laevisoocytes. Channels, 2013, 7, 47-50.	1.5	6
53	Extracellular Quaternary Ammonium Blockade of Transient Receptor Potential Vanilloid Subtype 1 Channels Expressed in Xenopus laevis Oocytes. Molecular Pharmacology, 2012, 82, 1129-1135.	1.0	4
54	Introduction. Advances in Experimental Medicine and Biology, 2015, 869, 1-4.	0.8	4

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55	Selection and validation of orthogonal tRNA/synthetase pairs for the encoding of unnatural amino acids across kingdoms. Methods in Enzymology, 2021, 654, 3-18.	0.4	2