

# Christopher A Ahern

## List of Publications by Year in descending order

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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	Role of a conserved ion-binding site tyrosine in ion selectivity of the Na <sup>+</sup> /K <sup>+</sup> pump. <i>Journal of General Physiology</i> , 2022, 154, .	0.9	7
2	Selection and validation of orthogonal tRNA/synthetase pairs for the encoding of unnatural amino acids across kingdoms. <i>Methods in Enzymology</i> , 2021, 654, 3-18.	0.4	2
3	HIFs: New arginine mimic inhibitors of the Hv1 channel with improved VSDâ€“ligand interactions. <i>Journal of General Physiology</i> , 2021, 153, .	0.9	14
4	Divergent Cl <sup>-</sup> and H <sup>+</sup> pathways underlie transport coupling and gating in CLC exchangers and channels. <i>ELife</i> , 2020, 9, .	2.8	17
5	Structural basis of Î±-scorpion toxin action on Na <sup>+</sup> channels. <i>Science</i> , 2019, 363, .	6.0	139
6	Engineered transfer RNAs for suppression of premature termination codons. <i>Nature Communications</i> , 2019, 10, 822.	5.8	86
7	Orthogonality of Pyrrolysine tRNA in the <i>Xenopus</i> oocyte. <i>Scientific Reports</i> , 2018, 8, 5166.	1.6	12
8	Cross-kingdom auxiliary subunit modulation of a voltage-gated sodium channel. <i>Journal of Biological Chemistry</i> , 2018, 293, 4981-4992.	1.6	11
9	Main-chain mutagenesis reveals intrahelical coupling in an ion channel voltage-sensor. <i>Nature Communications</i> , 2018, 9, 5055.	5.8	11
10	Replacing voltage sensor arginines with citrulline provides mechanistic insight into charge versus shape. <i>Journal of General Physiology</i> , 2018, 150, 1017-1024.	0.9	13
11	Rapid evolution of a voltage-gated sodium channel gene in a lineage of electric fish leads to a persistent sodium current. <i>PLoS Biology</i> , 2018, 16, e2004892.	2.6	24
12	Mining Protein Evolution for Insights into Mechanisms of Voltage-Dependent Sodium Channel Auxiliary Subunits. <i>Handbook of Experimental Pharmacology</i> , 2017, 246, 33-49.	0.9	10
13	Conformational dynamics in TRPV1 channels reported by an encoded coumarin amino acid. <i>ELife</i> , 2017, 6, .	2.8	25
14	Atomic determinants of BK channel activation by polyunsaturated fatty acids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 13905-13910.	3.3	31
15	The hitchhikerâ€™s guide to the voltage-gated sodium channel galaxy. <i>Journal of General Physiology</i> , 2016, 147, 1-24.	0.9	299
16	Atomic mutagenesis in ion channels with engineered stoichiometry. <i>ELife</i> , 2016, 5, .	2.8	23
17	Cellular encoding of Cy dyes for single-molecule imaging. <i>ELife</i> , 2016, 5, .	2.8	23
18	Atom-by-atom engineering of voltage-gated ion channels: Magnified insights into function and pharmacology. <i>Journal of Physiology</i> , 2015, 593, 2627-2634.	1.3	7

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19	A Conserved Residue Cluster That Governs Kinetics of ATP-dependent Gating of Kir6.2 Potassium Channels. <i>Journal of Biological Chemistry</i> , 2015, 290, 15450-15461.	1.6	8
20	Incorporation of Non-Canonical Amino Acids. <i>Advances in Experimental Medicine and Biology</i> , 2015, 869, 119-151.	0.8	34
21	Introduction. <i>Advances in Experimental Medicine and Biology</i> , 2015, 869, 1-4.	0.8	4
22	HACE1 reduces oxidative stress and mutant Huntingtin toxicity by promoting the NRF2 response. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3032-3037.	3.3	85
23	Asymmetric functional contributions of acidic and aromatic side chains in sodium channel voltage-sensor domains. <i>Journal of General Physiology</i> , 2014, 143, 645-656.	0.9	38
24	Unnatural Amino Acids as Probes of Ligand-Receptor Interactions and Their Conformational Consequences. <i>Annual Review of Pharmacology and Toxicology</i> , 2013, 53, 211-229.	4.2	68
25	The eEF2 Kinase Confers Resistance to Nutrient Deprivation by Blocking Translation Elongation. <i>Cell</i> , 2013, 153, 1064-1079.	13.5	348
26	Expression-dependent pharmacology of transient receptor potential vanilloid subtype 1 channels in <i>Xenopus laevis</i> oocytes. <i>Channels</i> , 2013, 7, 47-50.	1.5	6
27	What activates inactivation?. <i>Journal of General Physiology</i> , 2013, 142, 97-100.	0.9	15
28	Basis for allosteric open-state stabilization of voltage-gated potassium channels by intracellular cations. <i>Journal of General Physiology</i> , 2012, 140, 495-511.	0.9	17
29	Crystallographic basis for calcium regulation of sodium channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 3558-3563.	3.3	128
30	Molecular and functional determinants of local anesthetic inhibition of NaChBac. <i>Channels</i> , 2012, 6, 403-406.	1.5	17
31	Local anesthetic inhibition of a bacterial sodium channel. <i>Journal of General Physiology</i> , 2012, 139, 507-516.	0.9	67
32	Extracellular Quaternary Ammonium Blockade of Transient Receptor Potential Vanilloid Subtype 1 Channels Expressed in <i>Xenopus laevis</i> Oocytes. <i>Molecular Pharmacology</i> , 2012, 82, 1129-1135.	1.0	4
33	Intermediate state trapping of a voltage sensor. <i>Journal of General Physiology</i> , 2012, 140, 635-652.	0.9	50
34	Seeing the Forest through the Trees: towards a Unified View on Physiological Calcium Regulation of Voltage-Gated Sodium Channels. <i>Biophysical Journal</i> , 2012, 103, 2243-2251.	0.2	52
35	Blockade of Permeation by Potassium but Normal Gating of the G628S Nonconducting hERG Channel Mutant. <i>Biophysical Journal</i> , 2011, 101, 662-670.	0.2	8
36	Biophysical costs associated with tetrodotoxin resistance in the sodium channel pore of the garter snake, <i>Thamnophis sirtalis</i> . <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2011, 197, 33-43.	0.7	30

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37	Contributions of counter-charge in a potassium channel voltage-sensor domain. <i>Nature Chemical Biology</i> , 2011, 7, 617-623.	3.9	95
38	Contributions of Conserved Residues at the Gating Interface of Glycine Receptors. <i>Journal of Biological Chemistry</i> , 2011, 286, 35129-35136.	1.6	23
39	N <sup>ω</sup> -Substituted Arginyl Peptide Inhibitors of Protein Arginine N-Methyltransferases. <i>ACS Chemical Biology</i> , 2010, 5, 1053-1063.	1.6	34
40	A Double Tyrosine Motif in the Cardiac Sodium Channel Domain III-IV Linker Couples Calcium-dependent Calmodulin Binding to Inactivation Gating. <i>Journal of Biological Chemistry</i> , 2009, 284, 33265-33274.	1.6	49
41	An electrostatic interaction between TEA and an introduced pore aromatic drives spring-in-the-door inactivation in <i>Shaker</i> potassium channels. <i>Journal of General Physiology</i> , 2009, 134, 461-469.	0.9	14
42	New insights into the therapeutic inhibition of voltage-gated sodium channels. <i>Channels</i> , 2008, 2, 1-3.	1.5	18
43	Electrostatic Contributions of Aromatic Residues in the Local Anesthetic Receptor of Voltage-Gated Sodium Channels. <i>Circulation Research</i> , 2008, 102, 86-94.	2.0	162
44	A Cation- $\pi$ Interaction Discriminates among Sodium Channels That Are Either Sensitive or Resistant to Tetrodotoxin Block. <i>Journal of Biological Chemistry</i> , 2007, 282, 8044-8051.	1.6	84
45	Calcium Block of Single Sodium Channels: Role of a Pore-Lining Aromatic Residue. <i>Biophysical Journal</i> , 2007, 93, 2341-2349.	0.2	41
46	A Cation- $\pi$ Interaction between Extracellular TEA and an Aromatic Residue in Potassium Channels. <i>Journal of General Physiology</i> , 2006, 128, 649-657.	0.9	58
47	Investigating the Putative Glycine Hinge in Shaker Potassium Channel. <i>Journal of General Physiology</i> , 2005, 126, 213-226.	0.9	83
48	Modulation of the Cardiac Sodium Channel Na V 1.5 by Fyn, a Src Family Tyrosine Kinase. <i>Circulation Research</i> , 2005, 96, 991-998.	2.0	93
49	Focused Electric Field across the Voltage Sensor of Potassium Channels. <i>Neuron</i> , 2005, 48, 25-29.	3.8	147
50	Specificity of Charge-carrying Residues in the Voltage Sensor of Potassium Channels. <i>Journal of General Physiology</i> , 2004, 123, 205-216.	0.9	81
51	Stirring up controversy with a voltage sensor paddle. <i>Trends in Neurosciences</i> , 2004, 27, 303-307.	4.2	81
52	$\beta$ 1 Subunit Interactions within the Skeletal Muscle L-type Voltage-gated Calcium Channels. <i>Journal of Biological Chemistry</i> , 2003, 278, 12112-12119.	1.6	41
53	Molecular characterization of a two-domain form of the neuronal voltage-gated P/Q-type calcium channel $\alpha$ 2.1 subunit. <i>FEBS Letters</i> , 2002, 532, 300-308.	1.3	17
54	Ketamine, at Clinical Concentrations, Does Not Alter the Function of Cardiac Sarcoplasmic Reticulum Calcium Release Channels. <i>Anesthesia and Analgesia</i> , 1995, 81, 849-854.	1.1	7

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55	Removal of Mg <sup>2+</sup> -inhibition of cardiac ryanodine receptor by palmitoyl coenzyme A. FEBS Letters, 1994, 352, 285-290.	1.3	11