John S Mitcheson

List of Publications by Year
in descending order

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45 papers	2,806 citations	172457 29 h-index	233421 45 g-index
47 all docs	47 docs citations	47 times ranked	2170 citing authors

#	Article	IF	Citations
1	Predicting drugâ€“hERG channel interactions that cause acquired long QT syndrome. Trends in Pharmacological Sciences, 2005, 26, 119-124.	8.7	286
2	Trapping of a Methanesulfonanilide by Closure of the Herg Potassium Channel Activation Gate. Journal of General Physiology, 2000, 115, 229-240.	1.9	251
3	Molecular Determinants of hERG Channel Block. Molecular Pharmacology, 2006, 69, 1709-1716.	2.3	177
4	Structural Determinants of HERG Channel Block by Clofilium and Ibutilide. Molecular Pharmacology, 2004, 66, 240-249.	2.3	161
5	Open Channel Block of HERG K⁺ Channels by Vesnarinone. Molecular Pharmacology, 2001, 60, 244-253.	2.3	137
6	The Low-Potency, Voltage-Dependent HERG Blocker Propafenoneâ€”Molecular Determinants and Drug Trapping. Molecular Pharmacology, 2004, 66, 1201-1212.	2.3	112
7	Troubleshooting problems with in vitro screening of drugs for QT interval prolongation using HERG K+ channels expressed in mammalian cell lines and Xenopus oocytes. Journal of Pharmacological and Toxicological Methods, 2002, 48, 65-80.	0.7	109
8	Drug block of the hERG potassium channel: Insight from modeling. Proteins: Structure, Function and Bioinformatics, 2007, 68, 568-580.	2.6	100
9	hERG Potassium Channels and the Structural Basis of Drug-Induced Arrhythmias. Chemical Research in Toxicology, 2008, 21, 1005-1010.	3.3	99
10	Molecular biology of K+ channels and their role in cardiac arrhythmias11Am J Med. 2001;110-50-59.. American Journal of Medicine, 2001, 110, 50-59.	1.5	95
11	Action potentials, ion channel currents and transverse tubule density in adult rabbit ventricular myocytes maintained for 6 days in cell culture. Pflugers Archiv European Journal of Physiology, 1996, 431, 814-827.	2.8	94
12	SYMPOSIUM REVIEW: Revealing the structural basis of action of hERG potassium channel activators and blockers. Journal of Physiology, 2010, 588, 3157-3167.	2.9	87
13	Mechanistic Insight into Human ether-Ã-go-go-related Gene (hERG) K+ Channel Deactivation Gating from the Solution Structure of the EAG Domain. Journal of Biological Chemistry, 2011, 286, 6184-6191.	3.4	87
14	Drug Binding Interactions in the Inner Cavity of hERG Channels: Molecular Insights from Structure-Activity Relationships of Clofilium and Ibutilide Analogs. Molecular Pharmacology, 2006, 69, 509-519.	2.3	84
15	Functional Roles of Charged Residues in the Putative Voltage Sensor of the HCN2 Pacemaker Channel. Journal of Biological Chemistry, 2000, 275, 36465-36471.	3.4	72
16	hERG Potassium Channel Blockade by the HCN Channel Inhibitor Bradycardic Agent Ivabradine. Journal of the American Heart Association, 2015, 4, .	3.7	72
17	Comparative Pharmacology of Guinea Pig Cardiac Myocyte and Cloned hERG (I Kr) Channel. Journal of Cardiovascular Electrophysiology, 2004, 15, 1302-1309.	1.7	71
18	Role of Intracellular Sodium Overload in the Genesis of Cardiac Arrhythmias. Journal of Cardiovascular Electrophysiology, 1997, 8, 700-721.	1.7	69

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19	Drug binding to HERG channels: evidence for a â€˜non-aromaticâ€™ binding site for fluvoxamine. British Journal of Pharmacology, 2003, 139, 883-884.	5.4	54
20	A heme-binding domain controls regulation of ATP-dependent potassium channels. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3785-3790.	7.1	53
21	Insight into the Mechanism of Inactivation and pH Sensitivity in Potassium Channels from Molecular Dynamics Simulations. Biochemistry, 2008, 47, 7414-7422.	2.5	50
22	Molecular mechanisms for drug interactions with hERG that cause long QT syndrome. Expert Opinion on Drug Metabolism and Toxicology, 2006, 2, 81-94.	3.3	41
23	Activation Gating of hERG Potassium Channels. Journal of Biological Chemistry, 2007, 282, 31972-31981.	3.4	40
24	A mechanism for CO regulation of ion channels. Nature Communications, 2018, 9, 907.	12.8	38
25	Structural Determinants for High-Affinity Block of hERG Potassium Channels. Novartis Foundation Symposium, 2008, , 136-154.	1.1	34
26	Physicochemical Basis for Binding and Voltage-Dependent Block of hERG Channels by Structurally Diverse Drugs. Novartis Foundation Symposium, 2008, , 159-170.	1.1	34
27	Computational Design and Discovery of â€œMinimally Structuredâ€•hERG Blockers. Journal of Medicinal Chemistry, 2012, 55, 4010-4014.	6.4	33
28	Inhibition of L-type calcium current by propafenone in single myocytes isolated from the rabbit atrioventricular node. British Journal of Pharmacology, 1997, 121, 7-14.	5.4	31
29	Characteristics of a transient outward current (sensitive to 4-aminopyridine) in Ca 2+ -tolerant myocytes isolated from the rabbit atrioventricular node. Pflugers Archiv European Journal of Physiology, 1999, 438, 68-78.	2.8	29
30	A Novel Mechanism for Calmodulin-Dependent Inactivation of Transient Receptor Potential Vanilloid 6. Biochemistry, 2018, 57, 2611-2622.	2.5	27
31	Molecular determinants of high-affinity drug binding to HERG channels. Current Opinion in Drug Discovery & Development, 2003, 6, 667-74.	1.9	27
32	New Pyrimido-Indole Compound CD-160130 Preferentially Inhibits the K_V11.1B Isoform and Produces Antileukemic Effects without Cardiotoxicity. Molecular Pharmacology, 2015, 87, 183-196.	2.3	26
33	PROGRESS AND GAPS IN UNDERSTANDING THE ELECTROPHYSIOLOGICAL PROPERTIES OF MORPHOLOGICALLY NORMAL CELLS FROM THE CARDIAC ATRIOVENTRICULAR NODE. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 3675-3691.	1.7	19
34	Cultured Adult Rabbit Myocytes:.. Journal of Cardiovascular Electrophysiology, 1997, 8, 1020-1030.	1.7	17
35	Discovery of a heme-binding domain in a neuronal voltage-gated potassium channel. Journal of Biological Chemistry, 2020, 295, 13277-13286.	3.4	17
36	Structural determinants for high-affinity block of hERG potassium channels. Novartis Foundation Symposium, 2005, 266, 136-50; discussion 150-8.	1.1	16

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37	Calmodulin Regulates Human Ether Ã Go-Go 1 (hEAG1) Potassium Channels through Interactions of the Eag Domain with the Cyclic Nucleotide Binding Homology Domain. Journal of Biological Chemistry, 2016, 291, 17907-17918.	3.4	14
38	Long-Term Channel Block Is Required to Inhibit Cellular Transformation by Human Ether-Ã-Go-Goâ€"Related Gene (hERG1) Potassium Channels. Molecular Pharmacology, 2014, 86, 211-221.	2.3	11
39	hERG potassium channel inhibition by ivabradine may contribute to QT prolongation and risk of torsades de pointes. Therapeutic Advances in Drug Safety, 2015, 6, 177-179.	2.4	10
40	Action potentials, ion channel currents and transverse tubule density in adult rabbit ventricular myocytes maintained for 6 days in cell culture. Pflugers Archiv European Journal of Physiology, 1996, 431, 814-827.	2.8	5
41	Resonance assignment and secondary structure prediction of the N-terminal domain of hERG (Kv11.1). Biomolecular NMR Assignments, 2011, 5, 15-17.	0.8	5
42	hERG potassium channel inhibition by ivabradine requires channel gating. Journal of Molecular and Cellular Cardiology, 2015, 87, 126-128.	1.9	2
43	Modulation of hERG potassium channels by a novel small molecule activator. British Journal of Pharmacology, 2017, 174, 3669-3671.	5.4	2
44	Homology Models Applied to Toxicology. , 0, , 433-468.		0
45	The role of cGMPâ€dependent nitric oxide signalling on cardiac repolarisation. FASEB Journal, 2013, 27, 928.18.	0.5	0