Derek R Laver

List of Publications by Year
in descending order

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62 papers	2,804 citations	201575 27 h-index	175177 52 g-index
62 all docs	62 docs citations	62 times ranked	2765 citing authors

#	Article	IF	Citations
1	RYR2 Channel Inhibition Is the Principal Mechanism of Flecainide Action in CPVT. Circulation Research, 2021, 128, 321-331.	2.0	56
2	A constricted opening in Kir channels does not impede potassium conduction. Nature Communications, 2020, 11, 3024.	5.8	14
3	Measures of maximal tactile pressures of a sustained grasp task using a TactArray device have satisfactory reliability and validity in healthy people. Somatosensory & Motor Research, 2019, 36, 249-261.	0.4	1
4	Calmodulin inhibition of human RyR2 channels requires phosphorylation of RyR2-S2808 or RyR2-S2814. Journal of Molecular and Cellular Cardiology, 2019, 130, 96-106.	0.9	19
5	Secretoneurin Is an Endogenous Calcium/Calmodulin-Dependent Protein Kinase II Inhibitor That Attenuates Ca ²⁺ -Dependent Arrhythmia. Circulation: Arrhythmia and Electrophysiology, 2019, 12, e007045.	2.1	12
6	Mammalian TRP ion channels are insensitive to membrane stretch. Journal of Cell Science, 2019, 132, .	1.2	105
7	Simulation of Intracellular Calcium Release in Heart Cells. IFAC-PapersOnLine, 2019, 52, 238-243.	0.5	1
8	Functional Characterization of Native, High-Affinity GABAA Receptors in Human Pancreatic Î² Cells. EBioMedicine, 2018, 30, 273-282.	2.7	42
9	Can K+ be Conducted through a Narrow Pore? Investigating the role of Conformational Change in Gating Kir Channels. Biophysical Journal, 2018, 114, 35a.	0.2	0
10	Regulation of the RyR channel gating by Ca2+ and Mg2+. Biophysical Reviews, 2018, 10, 1087-1095.	1.5	47
11	Modelling Calcium-Induced-Calcium-Release from Measurements of RyR Gating. Biophysical Journal, 2017, 112, 540a-541a.	0.2	2
12	Nerve-induced responses of mouse vaginal smooth muscle. Pflugers Archiv European Journal of Physiology, 2017, 469, 1373-1385.	1.3	11
13	Cardiac Calcium Release Channel (Ryanodine Receptor 2) Regulation by Halogenated Anesthetics. Anesthesiology, 2017, 126, 495-506.	1.3	8
14	Calmodulin Mutants Linked to Catecholaminergic Polymorphic Ventricular Tachycardia Fail to Inhibit Human RyR2 Channels. Journal of the American College of Cardiology, 2017, 70, 115-117.	1.2	3
15	The emerging role of calmodulin regulation of RyR2 in controlling heart rhythm, the progression of heart failure and the antiarrhythmic action of dantrolene. Clinical and Experimental Pharmacology and Physiology, 2017, 44, 135-142.	0.9	29
16	Balancing SR Ca²⁺ uptake and release in the cycle of heart rhythm. Journal of Physiology, 2016, 594, 2779-2780.	1.3	0
17	Calmodulin Regulation of Ryanodine Receptors (RyR2) Differs in FailingÂand Non-Faling Human Hearts due to Differences in RyR2 Phosphorylation. Biophysical Journal, 2016, 110, 269a.	0.2	0
18	Polarized and persistent Ca2+ plumes define loci for formation of wall ingrowth papillae in transfer cells. Journal of Experimental Botany, 2015, 66, 1179-1190.	2.4	15

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19	Essential Role of Calmodulin in RyR Inhibition by Dantrolene. Molecular Pharmacology, 2015, 88, 57-63.	1.0	64
20	Single mechanically-gated cation channel currents can trigger action potentials in neocortical and hippocampal pyramidal neurons. Brain Research, 2015, 1608, 1-13.	1.1	20
21	Mechanisms of SR calcium release in healthy and failing human hearts. Biophysical Reviews, 2015, 7, 33-41.	1.5	9
22	Pharmacological Approaches That Slow Lymphatic Flow As a Snakebite First Aid. PLoS Neglected Tropical Diseases, 2014, 8, e2722.	1.3	25
23	Multiple Modes of Ryanodine Receptor 2 Inhibition by Flecainide. Molecular Pharmacology, 2014, 86, 696-706.	1.0	35
24	Divergent Regulation of Ryanodine Receptor 2 Calcium Release Channels by Arrhythmogenic Human Calmodulin Missense Mutants. Circulation Research, 2014, 114, 1114-1124.	2.0	126
25	Differences in the regulation of RyR2 from human, sheep, and rat by Ca2+ and Mg2+ in the cytoplasm and in the lumen of the sarcoplasmic reticulum. Journal of General Physiology, 2014, 144, 263-271.	0.9	20
26	Extraction of Sub-microscopic Ca Fluxes from Blurred and Noisy Fluorescent Indicator Images with a Detailed Model Fitting Approach. PLoS Computational Biology, 2013, 9, e1002931.	1.5	27
27	ÃŸ-Adrenergic Stimulation Increases RyR2 Activity via Intracellular Ca2+ and Mg2+ Regulation. PLoS ONE, 2013, 8, e58334.	1.1	37
28	Selective modulation of different GABAA receptor isoforms by diazepam and etomidate in hippocampal neurons. International Journal of Biochemistry and Cell Biology, 2012, 44, 1491-1500.	1.2	7
29	Three independent mechanisms contribute to tetracaine inhibition of cardiac calcium release channels. Journal of Molecular and Cellular Cardiology, 2011, 51, 357-369.	0.9	18
30	Inhibition of Cardiac Ca ²⁺ Release Channels (RyR2) Determines Efficacy of Class I Antiarrhythmic Drugs in Catecholaminergic Polymorphic Ventricular Tachycardia. Circulation: Arrhythmia and Electrophysiology, 2011, 4, 128-135.	2.1	137
31	Generation and propagation of gastric slow waves. Clinical and Experimental Pharmacology and Physiology, 2010, 37, 516-524.	0.9	62
32	Regulation of RyR Channel Gating by Ca2+, Mg2+ and ATP. Current Topics in Membranes, 2010, 66, 69-89.	0.5	11
33	Amyloid-Î² protein impairs Ca2+ release and contractility in skeletal muscle. Neurobiology of Aging, 2010, 31, 2080-2090.	1.5	52
34	Flecainide inhibits arrhythmogenic Ca2+ waves by open state block of ryanodine receptor Ca2+ release channels and reduction of Ca2+ spark mass. Journal of Molecular and Cellular Cardiology, 2010, 48, 293-301.	0.9	209
35	SR Ca2+ store refillâ€"a key factor in cardiac pacemaking. Journal of Molecular and Cellular Cardiology, 2010, 49, 412-426.	0.9	26
36	Protein interactions involving the Î³2 large cytoplasmic loop of GABA _A receptors modulate conductance. FASEB Journal, 2009, 23, 4361-4369.	0.2	17

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37	Amitriptyline Activates Cardiac Ryanodine Channels and Causes Spontaneous Sarcoplasmic Reticulum Calcium Release. Molecular Pharmacology, 2009, 75, 183-195.	1.0	24
38	Luminal Ca2+ activation of cardiac ryanodine receptors by luminal and cytoplasmic domains. European Biophysics Journal, 2009, 39, 19-26.	1.2	29
39	Flecainide prevents catecholaminergic polymorphic ventricular tachycardia in mice and humans. Nature Medicine, 2009, 15, 380-383.	15.2	539
40	Flecainide Inhibits Cardiac Ryanodine Channels And Spontaneous Sarcoplasmic Reticulum Calcium Release In Casq2 Null Myocytes. Biophysical Journal, 2009, 96, 11a.	0.2	0
41	Chapter 4 Electrical Methods for Determining Surface Charge Density and Electrolyte Composition at the Lipid Bilayerâ€Solution Interface. Behavior Research Methods, 2009, , 87-105.	2.3	2
42	Amyloid-Î² protein impairs Ca2+ release and contractility in skeletal muscle from Inclusion Body Myositis mice. Biophysical Journal, 2009, 96, 280a.	0.2	0
43	A domain peptide of the cardiac ryanodine receptor regulates channel sensitivity to luminal Ca2+ via cytoplasmic Ca2+ sites. European Biophysics Journal, 2008, 37, 455-467.	1.2	12
44	Luminal Mg2+, A Key Factor Controlling RYR2-mediated Ca2+ Release: Cytoplasmic and Luminal Regulation Modeled in a Tetrameric Channel. Journal of General Physiology, 2008, 132, 429-446.	0.9	63
45	Ca2+ Stores Regulate Ryanodine Receptor Ca2+ Release Channels via Luminal and Cytosolic Ca2+ Sites. Biophysical Journal, 2007, 92, 3541-3555.	0.2	126
46	Ca2+STORES REGULATE RYANODINE RECEPTOR Ca2+RELEASE CHANNELS VIA LUMINAL AND CYTOSOLIC Ca2+SITES. Clinical and Experimental Pharmacology and Physiology, 2007, 34, 889-896.	0.9	62
47	The Ryanodine Receptor Pore Blocker Neomycin also Inhibits Channel Activity via a Previously Undescribed High-Affinity Ca2+ Binding Site. Journal of Membrane Biology, 2007, 220, 11-20.	1.0	9
48	REGULATION OF RYANODINE RECEPTORS FROM SKELETAL AND CARDIAC MUSCLE DURING REST AND EXCITATION. Clinical and Experimental Pharmacology and Physiology, 2006, 33, 1107-1113.	0.9	20
49	Disulfonic stilbene permeation and block of the anion channel from the sarcoplasmic reticulum of rabbit skeletal muscle. American Journal of Physiology - Cell Physiology, 2006, 290, C1666-C1677.	2.1	8
50	Regulation of skeletal ryanodine receptors by dihydropyridine receptor IIâ€“III loop C-region peptides: relief of Mg2+ inhibition. Biochemical Journal, 2005, 387, 429-436.	1.7	16
51	The mechanism of SR95531 inhibition at GABAA receptors examined in human Î±1Î²1 and Î±1Î²1Î³2S receptors. Journal of Neurochemistry, 2005, 94, 491-501.	2.1	14
52	Coupled calcium release channels and their regulation by luminal and cytosolic ions. European Biophysics Journal, 2005, 34, 359-368.	1.2	24
53	Regulation of Ryanodine Receptors by Calsequestrin: Effect of High Luminal Ca2+ and Phosphorylation. Biophysical Journal, 2005, 88, 3444-3454.	0.2	100
54	Luminal Ca2+â€“regulated Mg2+ Inhibition of Skeletal RyRs Reconstituted as Isolated Channels or Coupled Clusters. Journal of General Physiology, 2004, 124, 741-758.	0.9	65

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55	Regulation of the Calcium Release Channel from Skeletal Muscle by Suramin and the Disulfonated Stilbene Derivatives DIDS, DBDS, and DNDS. Biophysical Journal, 2003, 84, 1674-1689.	0.2	34
56	Calsequestrin Is an Inhibitor of Skeletal Muscle Ryanodine Receptor Calcium Release Channels. Biophysical Journal, 2002, 82, 310-320.	0.2	145
57	Characteristics of Irreversible ATP Activation Suggest that Native Skeletal Ryanodine Receptors Can Be Phosphorylated via an Endogenous CaMKII. Biophysical Journal, 2001, 81, 3240-3252.	0.2	47
58	Phosphate ion channels in sarcoplasmic reticulum of rabbit skeletal muscle. Journal of Physiology, 2001, 535, 715-728.	1.3	30
59	Activation and Inhibition of Skeletal RyR Channels by a Part of the Skeletal DHPR II-III Loop: Effects of DHPR Ser 687 and FKBP12. Biophysical Journal, 1999, 77, 189-203.	0.2	82
60	ATP Inhibition and Rectification of a Ca2+-Activated Anion Channel in Sarcoplasmic Reticulum of Skeletal Muscle. Biophysical Journal, 1998, 74, 2335-2351.	0.2	27
61	Interpretation of substates in ion channels: Unipores or multipores?. Progress in Biophysics and Molecular Biology, 1997, 67, 99-140.	1.4	21
62	Whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells. Journal of Membrane Biology, 1991, 121, 11-22.	1.0	38