

Derek R Laver

List of Publications by Year in descending order

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62
papers

2,804
citations

201674
27
h-index

175258
52
g-index

62
all docs

62
docs citations

62
times ranked

2765
citing authors

#	ARTICLE	IF	CITATIONS
1	Flecainide prevents catecholaminergic polymorphic ventricular tachycardia in mice and humans. <i>Nature Medicine</i> , 2009, 15, 380-383.	30.7	539
2	Flecainide inhibits arrhythmogenic Ca ²⁺ waves by open state block of ryanodine receptor Ca ²⁺ release channels and reduction of Ca ²⁺ spark mass. <i>Journal of Molecular and Cellular Cardiology</i> , 2010, 48, 293-301.	1.9	209
3	Calsequestrin Is an Inhibitor of Skeletal Muscle Ryanodine Receptor Calcium Release Channels. <i>Biophysical Journal</i> , 2002, 82, 310-320.	0.5	145
4	Inhibition of Cardiac Ca ²⁺ Release Channels (RyR2) Determines Efficacy of Class I Antiarrhythmic Drugs in Catecholaminergic Polymorphic Ventricular Tachycardia. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2011, 4, 128-135.	4.8	137
5	Ca ²⁺ Stores Regulate Ryanodine Receptor Ca ²⁺ Release Channels via Luminal and Cytosolic Ca ²⁺ Sites. <i>Biophysical Journal</i> , 2007, 92, 3541-3555.	0.5	126
6	Divergent Regulation of Ryanodine Receptor 2 Calcium Release Channels by Arrhythmogenic Human Calmodulin Missense Mutants. <i>Circulation Research</i> , 2014, 114, 1114-1124.	4.5	126
7	Mammalian TRP ion channels are insensitive to membrane stretch. <i>Journal of Cell Science</i> , 2019, 132, .	2.0	105
8	Regulation of Ryanodine Receptors by Calsequestrin: Effect of High Luminal Ca ²⁺ and Phosphorylation. <i>Biophysical Journal</i> , 2005, 88, 3444-3454.	0.5	100
9	Activation and Inhibition of Skeletal RyR Channels by a Part of the Skeletal DHPR II-III Loop: Effects of DHPR Ser 687 and FKBP12. <i>Biophysical Journal</i> , 1999, 77, 189-203.	0.5	82
10	Luminal Ca ²⁺ -regulated Mg ²⁺ Inhibition of Skeletal RyRs Reconstituted as Isolated Channels or Coupled Clusters. <i>Journal of General Physiology</i> , 2004, 124, 741-758.	1.9	65
11	Essential Role of Calmodulin in RyR Inhibition by Dantrolene. <i>Molecular Pharmacology</i> , 2015, 88, 57-63.	2.3	64
12	Luminal Mg ²⁺ , A Key Factor Controlling RYR2-mediated Ca ²⁺ Release: Cytoplasmic and Luminal Regulation Modeled in a Tetrameric Channel. <i>Journal of General Physiology</i> , 2008, 132, 429-446.	1.9	63
13	Ca ²⁺ STORES REGULATE RYANODINE RECEPTOR Ca ²⁺ RELEASE CHANNELS VIA LUMINAL AND CYTOSOLIC Ca ²⁺ SITES. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2007, 34, 889-896.	1.9	62
14	Generation and propagation of gastric slow waves. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2010, 37, 516-524.	1.9	62
15	RYR2 Channel Inhibition Is the Principal Mechanism of Flecainide Action in CPVT. <i>Circulation Research</i> , 2021, 128, 321-331.	4.5	56
16	Amyloid- β protein impairs Ca ²⁺ release and contractility in skeletal muscle. <i>Neurobiology of Aging</i> , 2010, 31, 2080-2090.	3.1	52
17	Characteristics of Irreversible ATP Activation Suggest that Native Skeletal Ryanodine Receptors Can Be Phosphorylated via an Endogenous CaMKII. <i>Biophysical Journal</i> , 2001, 81, 3240-3252.	0.5	47
18	Regulation of the RyR channel gating by Ca ²⁺ and Mg ²⁺ . <i>Biophysical Reviews</i> , 2018, 10, 1087-1095.	3.2	47

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19	Functional Characterization of Native, High-Affinity GABAA Receptors in Human Pancreatic \hat{I}^2 Cells. EBioMedicine, 2018, 30, 273-282.	6.1	42
20	Whole-cell and single-channel currents across the plasmalemma of corn shoot suspension cells. Journal of Membrane Biology, 1991, 121, 11-22.	2.1	38
21	ÅŸ-Adrenergic Stimulation Increases RyR2 Activity via Intracellular Ca ²⁺ and Mg ²⁺ Regulation. PLoS ONE, 2013, 8, e58334.	2.5	37
22	Multiple Modes of Ryanodine Receptor 2 Inhibition by Flecainide. Molecular Pharmacology, 2014, 86, 696-706.	2.3	35
23	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.	0.5	34
24	Phosphate ion channels in sarcoplasmic reticulum of rabbit skeletal muscle. Journal of Physiology, 2001, 535, 715-728.	2.9	30
25	Luminal Ca ²⁺ activation of cardiac ryanodine receptors by luminal and cytoplasmic domains. European Biophysics Journal, 2009, 39, 19-26.	2.2	29
26	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.	1.9	29
27	ATP Inhibition and Rectification of a Ca ²⁺ -Activated Anion Channel in Sarcoplasmic Reticulum of Skeletal Muscle. Biophysical Journal, 1998, 74, 2335-2351.	0.5	27
28	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.	3.2	27
29	SR Ca ²⁺ store refillâ€”a key factor in cardiac pacemaking. Journal of Molecular and Cellular Cardiology, 2010, 49, 412-426.	1.9	26
30	Pharmacological Approaches That Slow Lymphatic Flow As a Snakebite First Aid. PLoS Neglected Tropical Diseases, 2014, 8, e2722.	3.0	25
31	Coupled calcium release channels and their regulation by luminal and cytosolic ions. European Biophysics Journal, 2005, 34, 359-368.	2.2	24
32	Amitriptyline Activates Cardiac Ryanodine Channels and Causes Spontaneous Sarcoplasmic Reticulum Calcium Release. Molecular Pharmacology, 2009, 75, 183-195.	2.3	24
33	Interpretation of substates in ion channels: Unipores or multipores?. Progress in Biophysics and Molecular Biology, 1997, 67, 99-140.	2.9	21
34	REGULATION OF RYANODINE RECEPTORS FROM SKELETAL AND CARDIAC MUSCLE DURING REST AND EXCITATION. Clinical and Experimental Pharmacology and Physiology, 2006, 33, 1107-1113.	1.9	20
35	Differences in the regulation of RyR2 from human, sheep, and rat by Ca ²⁺ and Mg ²⁺ in the cytoplasm and in the lumen of the sarcoplasmic reticulum. Journal of General Physiology, 2014, 144, 263-271.	1.9	20
36	Single mechanically-gated cation channel currents can trigger action potentials in neocortical and hippocampal pyramidal neurons. Brain Research, 2015, 1608, 1-13.	2.2	20

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37	Calmodulin inhibition of human RyR2 channels requires phosphorylation of RyR2-S2808 or RyR2-S2814. <i>Journal of Molecular and Cellular Cardiology</i> , 2019, 130, 96-106.	1.9	19
38	Three independent mechanisms contribute to tetracaine inhibition of cardiac calcium release channels. <i>Journal of Molecular and Cellular Cardiology</i> , 2011, 51, 357-369.	1.9	18
39	Protein interactions involving the \hat{I}^32 large cytoplasmic loop of GABA _A receptors modulate conductance. <i>FASEB Journal</i> , 2009, 23, 4361-4369.	0.5	17
40	Regulation of skeletal ryanodine receptors by dihydropyridine receptor \hat{I}^{III} loop C-region peptides: relief of Mg ²⁺ inhibition. <i>Biochemical Journal</i> , 2005, 387, 429-436.	3.7	16
41	Polarized and persistent Ca ²⁺ plumes define loci for formation of wall ingrowth papillae in transfer cells. <i>Journal of Experimental Botany</i> , 2015, 66, 1179-1190.	4.8	15
42	The mechanism of SR95531 inhibition at GABAA receptors examined in human $\hat{I}^1\hat{I}^21$ and $\hat{I}^1\hat{I}^21\hat{I}^32S$ receptors. <i>Journal of Neurochemistry</i> , 2005, 94, 491-501.	3.9	14
43	A constricted opening in Kir channels does not impede potassium conduction. <i>Nature Communications</i> , 2020, 11, 3024.	12.8	14
44	A domain peptide of the cardiac ryanodine receptor regulates channel sensitivity to luminal Ca ²⁺ via cytoplasmic Ca ²⁺ sites. <i>European Biophysics Journal</i> , 2008, 37, 455-467.	2.2	12
45	Secretoneurin Is an Endogenous Calcium/Calmodulin-Dependent Protein Kinase II Inhibitor That Attenuates Ca ²⁺ -Dependent Arrhythmia. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2019, 12, e007045.	4.8	12
46	Regulation of RyR Channel Gating by Ca ²⁺ , Mg ²⁺ and ATP. <i>Current Topics in Membranes</i> , 2010, 66, 69-89.	0.9	11
47	Nerve-induced responses of mouse vaginal smooth muscle. <i>Pflugers Archiv European Journal of Physiology</i> , 2017, 469, 1373-1385.	2.8	11
48	The Ryanodine Receptor Pore Blocker Neomycin also Inhibits Channel Activity via a Previously Undescribed High-Affinity Ca ²⁺ Binding Site. <i>Journal of Membrane Biology</i> , 2007, 220, 11-20.	2.1	9
49	Mechanisms of SR calcium release in healthy and failing human hearts. <i>Biophysical Reviews</i> , 2015, 7, 33-41.	3.2	9
50	Disulfonic stilbene permeation and block of the anion channel from the sarcoplasmic reticulum of rabbit skeletal muscle. <i>American Journal of Physiology - Cell Physiology</i> , 2006, 290, C1666-C1677.	4.6	8
51	Cardiac Calcium Release Channel (Ryanodine Receptor 2) Regulation by Halogenated Anesthetics. <i>Anesthesiology</i> , 2017, 126, 495-506.	2.5	8
52	Selective modulation of different GABAA receptor isoforms by diazepam and etomidate in hippocampal neurons. <i>International Journal of Biochemistry and Cell Biology</i> , 2012, 44, 1491-1500.	2.8	7
53	Calmodulin Mutants Linked to Catecholaminergic Polymorphic Ventricular Tachycardia Fail to Inhibit Human RyR2 Channels. <i>Journal of the American College of Cardiology</i> , 2017, 70, 115-117.	2.8	3
54	Chapter 4 Electrical Methods for Determining Surface Charge Density and Electrolyte Composition at the Lipid Bilayer-Solution Interface. <i>Behavior Research Methods</i> , 2009, , 87-105.	4.0	2

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55	Modelling Calcium-Induced-Calcium-Release from Measurements of RyR Gating. Biophysical Journal, 2017, 112, 540a-541a.	0.5	2
56	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.	0.9	1
57	Simulation of Intracellular Calcium Release in Heart Cells. IFAC-PapersOnLine, 2019, 52, 238-243.	0.9	1
58	Flecainide Inhibits Cardiac Ryanodine Channels And Spontaneous Sarcoplasmic Reticulum Calcium Release In Casq2 Null Myocytes. Biophysical Journal, 2009, 96, 11a.	0.5	0
59	Amyloid- β protein impairs Ca ²⁺ release and contractility in skeletal muscle from Inclusion Body Myositis mice. Biophysical Journal, 2009, 96, 280a.	0.5	0
60	Balancing SR Ca ²⁺ uptake and release in the cycle of heart rhythm. Journal of Physiology, 2016, 594, 2779-2780.	2.9	0
61	Calmodulin Regulation of Ryanodine Receptors (RyR2) Differs in Failing and Non-Failing Human Hearts due to Differences in RyR2 Phosphorylation. Biophysical Journal, 2016, 110, 269a.	0.5	0
62	Can K ⁺ be Conducted through a Narrow Pore? Investigating the role of Conformational Change in Gating Kir Channels. Biophysical Journal, 2018, 114, 35a.	0.5	0