

W J Lederer

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180
papers

24,625
citations

78
h-index

156
g-index

186
ext. papers

26,047
ext. citations

10.1
avg, IF

6.6
L-index

#	Paper	IF	Citations
180	Calcium sparks: elementary events underlying excitation-contraction coupling in heart muscle. <i>Science</i> , 1993 , 262, 740-4	33.3	1652
179	Sodium/calcium exchange: its physiological implications. <i>Physiological Reviews</i> , 1999 , 79, 763-854	47.9	1397
178	Relaxation of arterial smooth muscle by calcium sparks. <i>Science</i> , 1995 , 270, 633-7	33.3	1190
177	Cloning and expression of an inwardly rectifying ATP-regulated potassium channel. <i>Nature</i> , 1993 , 362, 31-8	50.4	871
176	Ankyrin-B mutation causes type 4 long-QT cardiac arrhythmia and sudden cardiac death. <i>Nature</i> , 2003 , 421, 634-9	50.4	812
175	Defective excitation-contraction coupling in experimental cardiac hypertrophy and heart failure. <i>Science</i> , 1997 , 276, 800-6	33.3	639
174	FKBP12.6 deficiency and defective calcium release channel (ryanodine receptor) function linked to exercise-induced sudden cardiac death. <i>Cell</i> , 2003 , 113, 829-40	56.2	589
173	Role of calcium ions in transient inward currents and aftercontractions induced by strophanthidin in cardiac Purkinje fibres. <i>Journal of Physiology</i> , 1978 , 281, 187-208	3.9	522
172	Calcium sparks in smooth muscle. <i>American Journal of Physiology - Cell Physiology</i> , 2000 , 278, C235-56	5.4	499
171	The control of calcium release in heart muscle. <i>Science</i> , 1995 , 268, 1045-9	33.3	495
170	Calmodulin kinase II inhibition protects against structural heart disease. <i>Nature Medicine</i> , 2005 , 11, 409-17	50.5	465
169	Calcium sparks. <i>Physiological Reviews</i> , 2008 , 88, 1491-545	47.9	447
168	Calcium sparks and $[Ca^{2+}]_i$ waves in cardiac myocytes. <i>American Journal of Physiology - Cell Physiology</i> , 1996 , 270, C148-59	5.4	442
167	X-ROS signaling: rapid mechano-chemo transduction in heart. <i>Science</i> , 2011 , 333, 1440-5	33.3	400
166	Orphaned ryanodine receptors in the failing heart. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 4305-10	11.5	347
165	Effect of membrane potential changes on the calcium transient in single rat cardiac muscle cells. <i>Science</i> , 1987 , 238, 1419-23	33.3	332
164	Cellular and subcellular heterogeneity of $[Ca^{2+}]_i$ in single heart cells revealed by fura-2. <i>Science</i> , 1987 , 235, 325-8	33.3	327

163	Spatial non-uniformities in $[Ca^{2+}]_i$ during excitation-contraction coupling in cardiac myocytes. <i>Biophysical Journal</i> , 1994 , 67, 1942-56	2.9	325
162	Suppression of voltage-gated L-type Ca^{2+} currents by polyunsaturated fatty acids in adult and neonatal rat ventricular myocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997 , 94, 4182-7	11.5	322
161	Transient inward current underlying arrhythmogenic effects of cardiotonic steroids in Purkinje fibres. <i>Journal of Physiology</i> , 1976 , 263, 73-100	3.9	322
160	Rapid adaptation of cardiac ryanodine receptors: modulation by Mg^{2+} and phosphorylation. <i>Science</i> , 1995 , 267, 1997-2000	33.3	303
159	Two mechanisms of quantized calcium release in skeletal muscle. <i>Nature</i> , 1996 , 379, 455-8	50.4	281
158	Leaky Ca^{2+} release channel/ryanodine receptor 2 causes seizures and sudden cardiac death in mice. <i>Journal of Clinical Investigation</i> , 2008 , 118, 2230-45	15.9	260
157	Mitofusin-2 maintains mitochondrial structure and contributes to stress-induced permeability transition in cardiac myocytes. <i>Molecular and Cellular Biology</i> , 2011 , 31, 1309-28	4.8	252
156	Sodium-calcium exchange in excitable cells: fuzzy space. <i>Science</i> , 1990 , 248, 283	33.3	245
155	Ca^{2+} channels, ryanodine receptors and Ca^{2+} -activated K^{+} channels: a functional unit for regulating arterial tone. <i>Acta Physiologica Scandinavica</i> , 1998 , 164, 577-87		240
154	Nucleotide modulation of the activity of rat heart ATP-sensitive K^{+} channels in isolated membrane patches. <i>Journal of Physiology</i> , 1989 , 419, 193-211	3.9	237
153	Mitochondrial calcium uptake. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 10479-86	11.5	236
152	ATP-sensitive potassium channel modulation of the guinea pig ventricular action potential and contraction. <i>Circulation Research</i> , 1991 , 68, 280-7	15.7	225
151	Phorbol ester increases calcium current and simulates the effects of angiotensin II on cultured neonatal rat heart myocytes. <i>Circulation Research</i> , 1988 , 62, 347-57	15.7	223
150	Na-Ca exchange: stoichiometry and electrogenicity. <i>American Journal of Physiology - Cell Physiology</i> , 1985 , 248, C189-202	5.4	217
149	Cellular origins of the transient inward current in cardiac myocytes. Role of fluctuations and waves of elevated intracellular calcium. <i>Circulation Research</i> , 1989 , 65, 115-26	15.7	204
148	Ca^{2+} ions can affect intracellular pH in mammalian cardiac muscle. <i>Nature</i> , 1983 , 301, 522-4	50.4	198
147	A simple numerical model of calcium spark formation and detection in cardiac myocytes. <i>Biophysical Journal</i> , 1998 , 75, 15-32	2.9	182
146	Stabilization of cardiac ryanodine receptor prevents intracellular calcium leak and arrhythmias. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 7906-10	11.5	180

145	Frequency modulation of Ca ²⁺ sparks is involved in regulation of arterial diameter by cyclic nucleotides. <i>American Journal of Physiology - Cell Physiology</i> , 1998 , 274, C1346-55	5.4	180
144	Relation between the sarcolemmal Ca ²⁺ current and Ca ²⁺ sparks and local control theories for cardiac excitation-contraction coupling. <i>Circulation Research</i> , 1996 , 78, 166-71	15.7	179
143	Voltage-independent calcium release in heart muscle. <i>Science</i> , 1990 , 250, 565-8	33.3	175
142	Angiotensin II increases spontaneous contractile frequency and stimulates calcium current in cultured neonatal rat heart myocytes: insights into the underlying biochemical mechanisms. <i>Circulation Research</i> , 1988 , 62, 524-34	15.7	174
141	Ca ²⁺ blinks: rapid nanoscopic store calcium signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3099-104	11.5	170
140	Dual regulation of Ca ²⁺ /calmodulin-dependent kinase II activity by membrane voltage and by calcium influx. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 9659-63	11.5	170
139	Mutually exclusive and cassette exons underlie alternatively spliced isoforms of the Na/Ca exchanger. <i>Journal of Biological Chemistry</i> , 1994 , 269, 5145-9	5.4	163
138	Microtubules underlie dysfunction in duchenne muscular dystrophy. <i>Science Signaling</i> , 2012 , 5, ra56	8.8	161
137	Excitation-contraction coupling in heart: new insights from Ca ²⁺ sparks. <i>Cell Calcium</i> , 1996 , 20, 129-40	4	160
136	Heart failure after myocardial infarction: altered excitation-contraction coupling. <i>Circulation</i> , 2001 , 104, 688-93	16.7	159
135	Ca ²⁺ flux through promiscuous cardiac Na ⁺ channels: slip-mode conductance. <i>Science</i> , 1998 , 279, 1027-33	33.3	153
134	Anoxic contractile failure in rat heart myocytes is caused by failure of intracellular calcium release due to alteration of the action potential. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1988 , 85, 6954-8	11.5	153
133	Molecular operations of the sodium-calcium exchanger revealed by conformation currents. <i>Nature</i> , 1991 , 349, 621-4	50.4	143
132	Changes in the calcium current of rat heart ventricular myocytes during development. <i>Journal of Physiology</i> , 1988 , 406, 115-46	3.9	139
131	The regulation of ATP-sensitive K ⁺ channel activity in intact and permeabilized rat ventricular myocytes. <i>Journal of Physiology</i> , 1990 , 423, 91-110	3.9	135
130	Characterization of the electrogenic sodium pump in cardiac Purkinje fibres. <i>Journal of Physiology</i> , 1980 , 303, 441-74	3.9	135
129	Intracellular Ca transients in rat cardiac myocytes: role of Na-Ca exchange in excitation-contraction coupling. <i>American Journal of Physiology - Cell Physiology</i> , 1990 , 258, C944-54	5.4	134
128	Inotropic and arrhythmogenic effects of potassium-depleted solutions on mammalian cardiac muscle. <i>Journal of Physiology</i> , 1979 , 294, 255-77	3.9	132

127	The dependence of sodium pumping and tension on intracellular sodium activity in voltage-clamped sheep Purkinje fibres. <i>Journal of Physiology</i> , 1981 , 317, 163-87	3.9	131
126	Expression of the Na-Ca exchanger in diverse tissues: a study using the cloned human cardiac Na-Ca exchanger. <i>American Journal of Physiology - Cell Physiology</i> , 1992 , 263, C1241-9	5.4	125
125	Scorpion toxins targeted against the sarcoplasmic reticulum Ca(2+)-release channel of skeletal and cardiac muscle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992 , 89, 12185-9	11.5	121
124	Ca ²⁺ and voltage inactivate Ca ²⁺ channels in guinea-pig ventricular myocytes through independent mechanisms. <i>Journal of Physiology</i> , 1991 , 444, 257-68	3.9	120
123	Modulation of cardiac ryanodine receptors of swine and rabbit by a phosphorylation-dephosphorylation mechanism. <i>Journal of Physiology</i> , 1995 , 487 (Pt 3), 609-22	3.9	119
122	Calcium sparks and excitation-contraction coupling in phospholamban-deficient mouse ventricular myocytes. <i>Journal of Physiology</i> , 1997 , 503 (Pt 1), 21-9	3.9	117
121	The control of tonic tension by membrane potential and intracellular sodium activity in the sheep cardiac Purkinje fibre. <i>Journal of Physiology</i> , 1983 , 335, 723-43	3.9	113
120	NCLX: the mitochondrial sodium calcium exchanger. <i>Journal of Molecular and Cellular Cardiology</i> , 2013 , 59, 205-13	5.8	111
119	Excitation-contraction coupling changes during postnatal cardiac development. <i>Journal of Molecular and Cellular Cardiology</i> , 2010 , 48, 379-86	5.8	107
118	Use of thapsigargin to study Ca ²⁺ homeostasis in cardiac cells. <i>Bioscience Reports</i> , 1995 , 15, 341-9	4.1	106
117	Thapsigargin inhibits contraction and Ca ²⁺ transient in cardiac cells by specific inhibition of the sarcoplasmic reticulum Ca ²⁺ pump. <i>Journal of Biological Chemistry</i> , 1992 , 267, 12545-51	5.4	103
116	The quantitative relationship between twitch tension and intracellular sodium activity in sheep cardiac Purkinje fibres. <i>Journal of Physiology</i> , 1984 , 355, 251-66	3.9	102
115	Role of sodium channel deglycosylation in the genesis of cardiac arrhythmias in heart failure. <i>Journal of Biological Chemistry</i> , 2001 , 276, 28197-203	5.4	101
114	Cellular and functional defects in a mouse model of heart failure. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2000 , 279, H3101-12	5.2	97
113	The mechanism of early contractile failure of isolated rat ventricular myocytes subjected to complete metabolic inhibition. <i>Journal of Physiology</i> , 1989 , 413, 329-49	3.9	97
112	Fluorescence lifetime imaging of intracellular calcium in COS cells using Quin-2. <i>Cell Calcium</i> , 1994 , 15, 7-27	4	96
111	Local Ca(2+) signaling and EC coupling in heart: Ca(2+) sparks and the regulation of the [Ca(2+)] _i transient. <i>Journal of Molecular and Cellular Cardiology</i> , 2002 , 34, 941-50	5.8	93
110	The Ca ²⁺ leak paradox and rogue ryanodine receptors: SR Ca ²⁺ efflux theory and practice. <i>Progress in Biophysics and Molecular Biology</i> , 2006 , 90, 172-85	4.7	92

109	Ca ²⁺ diffusion and sarcoplasmic reticulum transport both contribute to [Ca ²⁺] _i decline during Ca ²⁺ sparks in rat ventricular myocytes. <i>Journal of Physiology</i> , 1996 , 496 (Pt 2), 575-81	3.9	92
108	Immunofluorescence localization of the Na-Ca exchanger in heart cells. <i>American Journal of Physiology - Cell Physiology</i> , 1992 , 263, C545-50	5.4	92
107	Dynamics of calcium sparks and calcium leak in the heart. <i>Biophysical Journal</i> , 2011 , 101, 1287-96	2.9	89
106	The role of the sodium pump in the effects of potassium-depleted solutions on mammalian cardiac muscle. <i>Journal of Physiology</i> , 1979 , 294, 279-301	3.9	86
105	X-ROS signaling in the heart and skeletal muscle: stretch-dependent local ROS regulates [Ca ²⁺] _i . <i>Journal of Molecular and Cellular Cardiology</i> , 2013 , 58, 172-81	5.8	85
104	Membrane depolarization, elevated Ca(2+) entry, and gene expression in cerebral arteries of hypertensive rats. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2001 , 281, H2559-67 ^{5.2}	5.2	78
103	Novel subunit composition of a renal epithelial KATP channel. <i>Journal of Biological Chemistry</i> , 1998 , 273, 14165-71	5.4	78
102	Probing the outer mitochondrial membrane in cardiac mitochondria with nanoparticles. <i>Biophysical Journal</i> , 2007 , 92, 1058-71	2.9	77
101	Isoform-specific regulation of the Na ⁺ /Ca ²⁺ exchanger in rat astrocytes and neurons by PKA. <i>Journal of Neuroscience</i> , 1998 , 18, 4833-41	6.6	77
100	Mitochondria in cardiomyocyte Ca ²⁺ signaling. <i>International Journal of Biochemistry and Cell Biology</i> , 2009 , 41, 1957-71	5.6	76
99	Dynamic modulation of excitation-contraction coupling by protein phosphatases in rat ventricular myocytes. <i>Journal of Physiology</i> , 1996 , 493 (Pt 3), 793-800	3.9	75
98	Lidocaine's negative inotropic and antiarrhythmic actions. Dependence on shortening of action potential duration and reduction of intracellular sodium activity. <i>Circulation Research</i> , 1985 , 57, 578-90	15.7	75
97	Two-photon-excitation fluorescence imaging of three-dimensional calcium-ion activity. <i>Applied Optics</i> , 1994 , 33, 662-9	1.7	73
96	Local recovery of Ca ²⁺ release in rat ventricular myocytes. <i>Journal of Physiology</i> , 2005 , 565, 441-7	3.9	71
95	Propagation of excitation-contraction coupling into ventricular myocytes. <i>Pflugers Archiv European Journal of Physiology</i> , 1994 , 428, 415-7	4.6	71
94	The arrhythmogenic current I _{TI} in the absence of electrogenic sodium-calcium exchange in sheep cardiac Purkinje fibres. <i>Journal of Physiology</i> , 1986 , 374, 201-19	3.9	71
93	Effects of changes of intracellular pH on contraction in sheep cardiac Purkinje fibers. <i>Journal of General Physiology</i> , 1987 , 89, 1015-32	3.4	70
92	The effects of rubidium ions and membrane potentials on the intracellular sodium activity of sheep Purkinje fibres. <i>Journal of Physiology</i> , 1981 , 317, 189-205	3.9	68

91	Thick slurry bevelling: a new technique for bevelling extremely fine microelectrodes and micropipettes. <i>Pflugers Archiv European Journal of Physiology</i> , 1979 , 381, 287-8	4.6	67
90	Superresolution modeling of calcium release in the heart. <i>Biophysical Journal</i> , 2014 , 107, 3018-3029	2.9	66
89	Nuclear Ca ²⁺ regulates cardiomyocyte function. <i>Cell Calcium</i> , 2008 , 44, 230-42	4	65
88	The mechanism by which cytoplasmic protons inhibit the sodium-calcium exchanger in guinea-pig heart cells. <i>Journal of Physiology</i> , 1993 , 466, 481-99	3.9	65
87	Angiotensin-induced desensitization of the phosphoinositide pathway in cardiac cells occurs at the level of the receptor. <i>Circulation Research</i> , 1991 , 69, 800-9	15.7	63
86	The role of intracellular sodium activity in the anti-arrhythmic action of local anaesthetics in sheep Purkinje fibres. <i>Journal of Physiology</i> , 1983 , 340, 239-57	3.9	63
85	Calcium current in isolated neonatal rat ventricular myocytes. <i>Journal of Physiology</i> , 1987 , 391, 169-91	3.9	62
84	Molecular identification of a TTX-sensitive Ca ²⁺ current. <i>American Journal of Physiology - Cell Physiology</i> , 2001 , 280, C1327-39	5.4	61
83	A novel experimental chamber for single-cell voltage-clamp and patch-clamp applications with low electrical noise and excellent temperature and flow control. <i>Pflugers Archiv European Journal of Physiology</i> , 1986 , 406, 536-9	4.6	61
82	Functional differences between cardiac and renal isoforms of the rat Na ⁺ -Ca ²⁺ exchanger NCX1 expressed in <i>Xenopus</i> oocytes. <i>Journal of Physiology</i> , 2000 , 529 Pt 3, 599-610	3.9	60
81	The action of Na ⁺ as a cofactor in the inhibition by cytoplasmic protons of the cardiac Na ⁽⁺⁾ -Ca ²⁺ exchanger in the guinea-pig. <i>Journal of Physiology</i> , 1994 , 480 (Pt 1), 9-20	3.9	60
80	Real-time confocal microscopy and calcium measurements in heart muscle cells: towards the development of a fluorescence microscope with high temporal and spatial resolution. <i>Cell Calcium</i> , 1990 , 11, 121-30	4	58
79	ATP dependence of KATP channel kinetics in isolated membrane patches from rat ventricle. <i>Biophysical Journal</i> , 1991 , 60, 1164-77	2.9	56
78	Alterations of atrial Ca ²⁺ handling as cause and consequence of atrial fibrillation. <i>Cardiovascular Research</i> , 2011 , 89, 722-33	9.9	54
77	The role of ATP in energy-deprivation contractures in unloaded rat ventricular myocytes. <i>Canadian Journal of Physiology and Pharmacology</i> , 1990 , 68, 183-94	2.4	52
76	Ca sparks do not explain all ryanodine receptor-mediated SR Ca leak in mouse ventricular myocytes. <i>Biophysical Journal</i> , 2010 , 98, 2111-20	2.9	51
75	Properties of L-type calcium channel gating current in isolated guinea pig ventricular myocytes. <i>Journal of General Physiology</i> , 1991 , 98, 265-85	3.4	50
74	Calcium biology of the transverse tubules in heart. <i>Annals of the New York Academy of Sciences</i> , 2005 , 1047, 99-111	6.5	49

73	Partial inhibition of Ca ²⁺ current by methoxyverapamil (D600) reveals spatial nonuniformities in [Ca ²⁺] _i during excitation-contraction coupling in cardiac myocytes. <i>Circulation Research</i> , 1995 , 76, 236-41	15.7	48
72	Myosin-binding protein C corrects an intrinsic inhomogeneity in cardiac excitation-contraction coupling. <i>Science Advances</i> , 2015 , 1,	14.3	47
71	Effect of the immunosuppressant FK506 on excitation-contraction coupling and outward K ⁺ currents in rat ventricular myocytes. <i>Journal of Physiology</i> , 1997 , 501 (Pt 3), 509-16	3.9	47
70	STIM1 enhances SR Ca ²⁺ content through binding phospholamban in rat ventricular myocytes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E4792-801	11.5	43
69	On the mechanism of inhibition of KATP channels by glibenclamide in rat ventricular myocytes. <i>Journal of Cardiovascular Electrophysiology</i> , 1993 , 4, 38-47	2.7	41
68	The relationship between sodium pump activity and twitch tension in cardiac Purkinje fibres. <i>Journal of Physiology</i> , 1980 , 303, 475-94	3.9	40
67	Aqueous diffusion pathways as a part of the ventricular cell ultrastructure. <i>Biophysical Journal</i> , 2006 , 90, 1107-19	2.9	39
66	Dynamic local changes in sarcoplasmic reticulum calcium: physiological and pathophysiological roles. <i>Journal of Molecular and Cellular Cardiology</i> , 2012 , 52, 304-11	5.8	38
65	Na ⁺ /Ca ²⁺ exchanger in Drosophila: cloning, expression, and transport differences. <i>American Journal of Physiology - Cell Physiology</i> , 1997 , 273, C257-65	5.4	38
64	Activation of Na-Ca exchange current by photolysis of "caged calcium". <i>Biophysical Journal</i> , 1993 , 65, 882-91	2.9	38
63	Functional groups of ryanodine receptors in rat ventricular cells. <i>Journal of Physiology</i> , 2007 , 583, 251-69	3.9	37
62	Twenty years of calcium imaging: cell physiology to dye for. <i>Molecular Interventions: Pharmacological Perspectives From Biology, Chemistry and Genomics</i> , 2005 , 5, 112-27		36
61	Cardiac Na-Ca exchange and pH. <i>Annals of the New York Academy of Sciences</i> , 1996 , 779, 182-98	6.5	35
60	STIM1-Ca ²⁺ signaling modulates automaticity of the mouse sinoatrial node. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E5618-27	11.5	34
59	Overexpression of beta2-adrenergic receptors cAMP-dependent protein kinase phosphorylates and modulates slow delayed rectifier potassium channels expressed in murine heart: evidence for receptor/channel co-localization. <i>Journal of Biological Chemistry</i> , 2004 , 279, 40778-87	5.4	34
58	Models of Ca ²⁺ release channel adaptation. <i>Science</i> , 1995 , 267, 2009-10	33.3	34
57	Intramembrane charge movement in guinea-pig and rat ventricular myocytes. <i>Journal of Physiology</i> , 1989 , 415, 601-24	3.9	34
56	Diastolic transient inward current in long QT syndrome type 3 is caused by Ca ²⁺ overload and inhibited by ranolazine. <i>Journal of Molecular and Cellular Cardiology</i> , 2009 , 47, 326-34	5.8	33

55	Restitution of Ca ²⁺ release and vulnerability to arrhythmias. <i>Journal of Cardiovascular Electrophysiology</i> , 2006 , 17 Suppl 1, S64-S70	2.7	32
54	Repriming and activation alter the frequency of stereotyped discrete Ca ²⁺ release events in frog skeletal muscle. <i>Journal of Physiology</i> , 1996 , 497 (Pt 3), 581-8	3.9	32
53	On establishing primary cultures of neonatal rat ventricular myocytes for analysis over long periods. <i>Journal of Cardiovascular Electrophysiology</i> , 1994 , 5, 50-62	2.7	30
52	Ryanodine receptor sensitivity governs the stability and synchrony of local calcium release during cardiac excitation-contraction coupling. <i>Journal of Molecular and Cellular Cardiology</i> , 2016 , 92, 82-92	5.8	28
51	Sarcoplasmic reticulum in heart failure: central player or bystander?. <i>Cardiovascular Research</i> , 1998 , 37, 346-51	9.9	28
50	The effects of sodium pump activity on the slow inward current in sheep cardiac Purkinje fibres. <i>Proceedings of the Royal Society of London Series B, Containing Papers of A Biological Character</i> , 1982 , 214, 249-62		28
49	Molecular and cellular actions of platelet-activating factor in rat heart cells. <i>Journal of Clinical Investigation</i> , 1991 , 88, 2106-16	15.9	28
48	Dynamics of the mitochondrial permeability transition pore: Transient and permanent opening events. <i>Archives of Biochemistry and Biophysics</i> , 2019 , 666, 31-39	4.1	27
47	Subcellular Ca ²⁺ signaling in the heart: the role of ryanodine receptor sensitivity. <i>Journal of General Physiology</i> , 2010 , 136, 135-42	3.4	26
46	The molecular biology of the Na ⁺ -Ca ²⁺ exchanger and its functional roles in heart, smooth muscle cells, neurons, glia, lymphocytes, and nonexcitable cells. <i>Annals of the New York Academy of Sciences</i> , 1996 , 779, 7-17	6.5	26
45	Effects of extracellular sodium on calcium efflux and membrane current in single muscle cells from the barnacle. <i>Journal of Physiology</i> , 1983 , 341, 325-39	3.9	25
44	On the Adjacency Matrix of RyR2 Cluster Structures. <i>PLoS Computational Biology</i> , 2015 , 11, e1004521	5	24
43	Restoring forces in cardiac myocytes. Insight from relaxations induced by photolysis of caged ATP. <i>Biophysical Journal</i> , 1991 , 59, 1123-35	2.9	24
42	Modulation of ATP-sensitive potassium channel activity by flash-photolysis of caged-ATP in rat heart cells. <i>Pflügers Archiv European Journal of Physiology</i> , 1990 , 415, 510-2	4.6	23
41	Excitation-contraction coupling in heart cells. Roles of the sodium-calcium exchange, the calcium current, and the sarcoplasmic reticulum. <i>Annals of the New York Academy of Sciences</i> , 1990 , 588, 190-206	6.5	22
40	Sodium pump stoichiometry determined by simultaneous measurements of sodium efflux and membrane current in barnacle. <i>Journal of Physiology</i> , 1984 , 348, 665-77	3.9	21
39	The cardiac IP ₃ receptor: uncovering the role of "the other" calcium-release channel. <i>Journal of Molecular and Cellular Cardiology</i> , 2008 , 45, 159-61	5.8	20
38	Calcium current in single human cardiac myocytes. <i>Journal of Cardiovascular Electrophysiology</i> , 1993 , 4, 422-37	2.7	20

37	Distribution of ryanodine receptors in rat ventricular myocytes. <i>Journal of Muscle Research and Cell Motility</i> , 2009 , 30, 161-70	3.5	18
36	Independent inhibition of calcineurin and K ⁺ currents by the immunosuppressant FK-506 in rat ventricle. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 1998 , 275, H2041-52	5.2	16
35	Phosphorylation and other conundrums of Na/Ca exchanger, NCX1. <i>Annals of the New York Academy of Sciences</i> , 2007 , 1099, 103-18	6.5	15
34	The mechanism of KATP channel inhibition by ATP. <i>Journal of General Physiology</i> , 1991 , 97, 1095-8	3.4	15
33	Functional expression of the human cardiac Na ⁺ /Ca ²⁺ exchanger in Sf9 cells: rapid and specific Ni ²⁺ transport. <i>Cell Calcium</i> , 1999 , 25, 9-17	4	14
32	Effects of membrane potential on intracellular calcium concentration in sheep Purkinje fibres in sodium-free solutions. <i>Journal of Physiology</i> , 1986 , 381, 193-203	3.9	14
31	Ryanodine block of calcium oscillations in heart muscle and the sodium-tension relationship. <i>Federation Proceedings</i> , 1985 , 44, 2964-9		13
30	Immunofluorescence localization of SERCA2a and the phosphorylated forms of phospholamban in intact rat cardiac ventricular myocytes. <i>Annals of the New York Academy of Sciences</i> , 1998 , 853, 273-9	6.5	12
29	Alternative splicing of the Na ⁽⁺⁾ -Ca ²⁺ exchanger gene, NCX1. <i>Annals of the New York Academy of Sciences</i> , 1996 , 779, 46-57	6.5	12
28	Ambiguous interactions between diastolic and SR Ca in the regulation of cardiac Ca release. <i>Journal of General Physiology</i> , 2017 , 149, 847-855	3.4	11
27	Ni ²⁺ transport by the human Na ⁺ /Ca ²⁺ exchanger expressed in Sf9 cells. <i>American Journal of Physiology - Cell Physiology</i> , 1999 , 276, C1184-92	5.4	11
26	Response. <i>Science</i> , 1991 , 251, 1371	33.3	11
25	Active transport and inotropic state in guinea pig left atrium. <i>Circulation Research</i> , 1983 , 53, 834-6	15.7	11
24	Does the use of DM-nitrophen, nitr-5, or diazo-2 interfere with the measurement of indo-1 fluorescence?. <i>Biophysical Journal</i> , 1993 , 65, 2537-46	2.9	10
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