Natalia Shirokova

List of Publications by Year
in descending order

39 papers	2,589 citations	159358 30 h-index	301761 39 g-index
43 all docs	43 docs citations	43 times ranked	2521 citing authors

#	Article	IF	Citations
1	RyR1 S-Nitrosylation Underlies Environmental Heat Stroke and Sudden Death in Y522S RyR1 Knockin Mice. Cell, 2008, 133, 53-65.	13.5	321
2	Amplitude Distribution of Calcium Sparks in Confocal Images: Theory and Studies with an Automatic Detection Method. Biophysical Journal, 1999, 76, 606-617.	0.2	272
3	Local calcium release in mammalian skeletal muscle. Journal of Physiology, 1998, 512, 377-384.	1.3	130
4	Involvement of multiple intracellular release channels in calcium sparks of skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 4380-4385.	3.3	125
5	Dystrophic cardiomyopathy: amplification of cellular damage by Ca2+ signalling and reactive oxygen species-generating pathways. Cardiovascular Research, 2008, 77, 766-773.	1.8	124
6	Cardiac phenotype of Duchenne Muscular Dystrophy: Insights from cellular studies. Journal of Molecular and Cellular Cardiology, 2013, 58, 217-224.	0.9	98
7	Reciprocal amplification of ROS and Ca2+ signals in stressed mdx dystrophic skeletal muscle fibers. Pflugers Archiv European Journal of Physiology, 2009, 458, 915-928.	1.3	95
8	Transfer and Tunneling of Ca2+ from Sarcoplasmic Reticulum to Mitochondria in Skeletal Muscle. Journal of Biological Chemistry, 2006, 281, 1547-1554.	1.6	87
9	Mitochondrial redox state and Ca2+sparks in permeabilized mammalian skeletal muscle. Journal of Physiology, 2005, 565, 855-872.	1.3	84
10	The Spark and Its Ember. Journal of General Physiology, 2000, 115, 139-158.	0.9	82
11	Small event Ca2+release: a probable precursor of Ca2+sparks in frog skeletal muscle. Journal of Physiology, 1997, 502, 3-11.	1.3	76
12	Calcium Release Flux Underlying Ca2+ Sparks of Frog Skeletal Muscle. Journal of General Physiology, 1999, 114, 31-48.	0.9	74
13	Posttranslational modifications of cardiac ryanodine receptors: Ca2+ signaling and EC-coupling. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 866-875.	1.9	69
14	Pathways of abnormal stress-induced Ca2+ influx into dystrophic mdx cardiomyocytes. Cell Calcium, 2009, 46, 114-121.	1.1	68
15	Reactive oxygen species contribute to Ca²⁺ signals produced by osmotic stress in mouse skeletal muscle fibres. Journal of Physiology, 2008, 586, 197-210.	1.3	66
16	Spatially segregated control of Ca2+release in developing skeletal muscle of mice. Journal of Physiology, 1999, 521, 483-495.	1.3	59
17	A guide to sparkology: The taxonomy of elementary cellular Ca2+ signaling events. Cell Calcium, 2007, 42, 379-387.	1.1	59
18	Ca(2+)-dependent inactivation of cardiac L-type Ca2+ channels does not affect their voltage sensor.. Journal of General Physiology, 1993, 102, 1005-1030.	0.9	56

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19	Two classes of gating current from L-type Ca channels in guinea pig ventricular myocytes.. Journal of General Physiology, 1992, 99, 863-895.	0.9	55
20	Prevention of connexin-43 remodeling protects against Duchenne muscular dystrophy cardiomyopathy. Journal of Clinical Investigation, 2020, 130, 1713-1727.	3.9	52
21	Metabolic Regulation of Ca 2+ Release in Permeabilized Mammalian Skeletal Muscle Fibres. Journal of Physiology, 2003, 547, 453-462.	1.3	51
22	S-nitrosylation of connexin43 hemichannels elicits cardiac stressâ€“induced arrhythmias in Duchenne muscular dystrophy mice. JCI Insight, 2019, 4, .	2.3	50
23	Hypersensitivity of excitation-contraction coupling in dystrophic cardiomyocytes. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H1992-H2003.	1.5	49
24	Calcium Sparks: Release Packets of Uncertain Origin and Fundamental Role. Journal of General Physiology, 1999, 113, 377-384.	0.9	46
25	Hierarchical accumulation of RyR post-translational modifications drives disease progression in dystrophic cardiomyopathy. Cardiovascular Research, 2013, 97, 666-675.	1.8	45
26	Mitochondrial dysfunctions during progression of dystrophic cardiomyopathy. Cell Calcium, 2015, 58, 186-195.	1.1	45
27	Fast imaging in two dimensions resolves extensive sources of Ca 2+ sparks in frog skeletal muscle. Journal of Physiology, 2000, 528, 419-433.	1.3	42
28	Pivotal role of miR-448 in the development of ROS-induced cardiomyopathy. Cardiovascular Research, 2015, 108, 324-334.	1.8	41
29	Type 1 Inositol (1,4,5)-Trisphosphate Receptor Activates Ryanodine Receptor 1 to Mediate Calcium Spark Signaling in Adult Mammalian Skeletal Muscle. Journal of Biological Chemistry, 2013, 288, 2103-2109.	1.6	39
30	Deficit in PINK1/PARKIN-mediated mitochondrial autophagy at late stages of dystrophic cardiomyopathy. Cardiovascular Research, 2018, 114, 90-102.	1.8	39
31	â€˜Quantalâ€™ calcium release operated by membrane voltage in frog skeletal muscle. Journal of Physiology, 1997, 501, 289-303.	1.3	29
32	<i>G</i>_{Î±q} Sensitizes TRPM8 to Inhibition by PI(4,5)P₂ Depletion upon Receptor Activation. Journal of Neuroscience, 2019, 39, 6067-6080.	1.7	15
33	Normalization of connexin 43 protein levels prevents cellular and functional signs of dystrophic cardiomyopathy in mice. Neuromuscular Disorders, 2018, 28, 361-372.	0.3	13
34	Studies of RyR function in situ. Methods, 2008, 46, 183-193.	1.9	9
35	Small Fractions of Muscular Dystrophy Embryonic Stem Cells Yield Severe Cardiac and Skeletal Muscle Defects in Adult Mouse Chimeras. Stem Cells, 2017, 35, 597-610.	1.4	9
36	Changes of EC-coupling and RyR Calcium Sensitivity in Dystrophic mdx Mouse Cardiomyocytes. Biophysical Journal, 2009, 96, 10a-11a.	0.2	2

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37	Insights into RyRs Dysfunctions via Studies of Intracellular Calcium Signals. Biophysical Journal, 2012, 102, 213a.	0.2	1
38	Ca2+ sparks â€“ SOS signals of struggling muscle. , 2006, , 27-28.		0
39	Caged Compounds: Applications in Cardiac Muscle Research. , 2018, , 75-95.		0