Susan Treves

List of Publications by Year
in descending order

115 papers	3,920 citations	101543 36 h-index	138484 58 g-index
121 all docs	121 docs citations	121 times ranked	3716 citing authors

#	Article	IF	Citations
1	Congenital myopathies: disorders of excitationâ€“contraction coupling and muscle contraction. Nature Reviews Neurology, 2018, 14, 151-167.	10.1	212
2	Molecular mechanisms and phenotypic variation in RYR1-related congenital myopathies. Brain, 2007, 130, 2024-2036.	7.6	161
3	Congenital muscle disorders with cores: the ryanodine receptor calcium channel paradigm. Current Opinion in Pharmacology, 2008, 8, 319-326.	3.5	149
4	Ryanodine receptor 1 mutations, dysregulation of calcium homeostasis and neuromuscular disorders. Neuromuscular Disorders, 2005, 15, 577-587.	0.6	126
5	Ectosomes Released by Polymorphonuclear Neutrophils Induce a MerTK-dependent Anti-inflammatory Pathway in Macrophages. Journal of Biological Chemistry, 2010, 285, 39914-39921.	3.4	124
6	Junctate is a key element in calcium entry induced by activation of InsP3 receptors and/or calcium store depletion. Journal of Cell Biology, 2004, 166, 537-548.	5.2	116
7	Interaction of S100A1 with the Ca2+Release Channel (Ryanodine Receptor) of Skeletal Muscleâ€. Biochemistry, 1997, 36, 11496-11503.	2.5	113
8	Centronuclear myopathy due to a de novo dominant mutation in the skeletal muscle ryanodine receptor (RYR1) gene. Neuromuscular Disorders, 2007, 17, 338-345.	0.6	105
9	Characterization of recessive RYR1 mutations in core myopathies. Human Molecular Genetics, 2006, 15, 2791-2803.	2.9	103
10	Dihydropyridine receptor (DHPR, CACNA1S) congenital myopathy. Acta Neuropathologica, 2017, 133, 517-533.	7.7	97
11	Effect of Ryanodine Receptor Mutations on Interleukin-6 Release and Intracellular Calcium Homeostasis in Human Myotubes from Malignant Hyperthermia-susceptible Individuals and Patients Affected by Central Core Disease. Journal of Biological Chemistry, 2004, 279, 43838-43846.	3.4	96
12	Molecular Genetic Testing for Malignant Hyperthermia Susceptibility. Anesthesiology, 2004, 100, 1076-1080.	2.5	95
13	Molecular Cloning, Expression, Functional Characterization, Chromosomal Localization, and Gene Structure of Junctate, a Novel Integral Calcium Binding Protein of Sarco(endo)plasmic Reticulum Membrane. Journal of Biological Chemistry, 2000, 275, 39555-39568.	3.4	87
14	Multi-minicore disease and atypical periodic paralysis associated with novel mutations in the skeletal muscle ryanodine receptor (RYR1) gene. Neuromuscular Disorders, 2010, 20, 166-173.	0.6	78
15	Identification and Characterization of Three Calmodulin Binding Sites of the Skeletal Muscle Ryanodine Receptor. Biochemistry, 1994, 33, 9078-9084.	2.5	75
16	B-lymphocytes from Malignant Hyperthermia-susceptible Patients Have an Increased Sensitivity to Skeletal Muscle Ryanodine Receptor Activators. Journal of Biological Chemistry, 2001, 276, 48077-48082.	3.4	74
17	Ectosomes of polymorphonuclear neutrophils activate multiple signaling pathways in macrophages. Immunobiology, 2013, 218, 382-392.	1.9	74
18	Nerve growth factor (NGF) influences differentiation and proliferation of myogenic cells in vitro via TrKA. International Journal of Developmental Neuroscience, 2000, 18, 869-885.	1.6	73

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19	Exertional rhabdomyolysis: physiological response or manifestation of an underlying myopathy?. BMJ Open Sport and Exercise Medicine, 2016, 2, e000151.	2.9	73
20	Increasing the number of diagnostic mutations in malignant hyperthermia. Human Mutation, 2009, 30, 590-598.	2.5	66
21	Minor sarcoplasmic reticulum membrane components that modulate excitationâ€“contraction coupling in striated muscles. Journal of Physiology, 2009, 587, 3071-3079.	2.9	64
22	Junctate, an inositol 1,4,5-triphosphate receptor associated protein, is present in rodent sperm and binds TRPC2 and TRPC5 but not TRPC1 channels. Developmental Biology, 2005, 286, 326-337.	2.0	62
23	Genotype-phenotype comparison of the Swiss malignant hyperthermia population. Human Mutation, 2001, 18, 357-358.	2.5	61
24	Functional properties of ryanodine receptors carrying three amino acid substitutions identified in patients affected by multi-minicore disease and central core disease, expressed in immortalized lymphocytes. Biochemical Journal, 2006, 395, 259-266.	3.7	59
25	Agrin regulates CLASP2-mediated capture of microtubules at the neuromuscular junction synaptic membrane. Journal of Cell Biology, 2012, 198, 421-437.	5.2	57
26	Chlorocresol, an Additive to Commercial Succinylcholine, Induces Contracture of Human Malignant Hyperthermia-susceptible Muscles Via Activation of the Ryanodine Receptor Calcium sup 2+ Channel. Anesthesiology, 1996, 84, 1380-1385.	2.5	54
27	Remodeling of calcium handling in skeletal muscle through PGC-1Î±: impact on force, fatigability, and fiber type. American Journal of Physiology - Cell Physiology, 2012, 302, C88-C99.	4.6	51
28	Agonist-activated Ca2+ influx occurs at stable plasma membrane and endoplasmic reticulum junctions. Journal of Cell Science, 2010, 123, 4170-4181.	2.0	47
29	Mapping domains and mutations on the skeletal muscle ryanodine receptor channel. Trends in Molecular Medicine, 2012, 18, 644-657.	6.7	47
30	Epigenetic changes as a common trigger of muscle weakness in congenital myopathies. Human Molecular Genetics, 2015, 24, 4636-4647.	2.9	44
31	STAC3variants cause a congenital myopathy with distinctive dysmorphic features and malignant hyperthermia susceptibility. Human Mutation, 2018, 39, 1980-1994.	2.5	42
32	Calmodulin Binding Sites of the Skeletal, Cardiac, and Brain Ryanodine Receptor Ca2+ Channels: Modulation by the Catalytic Subunit of cAMP-Dependent Protein Kinase?. Biochemistry, 1995, 34, 5120-5129.	2.5	41
33	RyR1 Deficiency in Congenital Myopathies Disrupts Excitation-Contraction Coupling. Human Mutation, 2013, 34, 986-996.	2.5	40
34	Atypical periodic paralysis and myalgia. Neurology, 2018, 90, e412-e418.	1.1	39
35	The Novel Skeletal Muscle Sarcoplasmic Reticulum JP-45 Protein. Journal of Biological Chemistry, 2003, 278, 39987-39992.	3.4	36
36	Clinical and functional effects of a deletion in a COOH-terminal lumenal loop of the skeletal muscle ryanodine receptor. Human Molecular Genetics, 2003, 12, 379-388.	2.9	35

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37	Loss of skeletal muscle strength by ablation of the sarcoplasmic reticulum protein JP45. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20108-20113.	7.1	35
38	Enhanced dihydropyridine receptor calcium channel activity restores muscle strength in JP45/CASQ1 double knockout mice. Nature Communications, 2013, 4, 1541.	12.8	35
39	Role of Malignant Hyperthermia Domain in the Regulation of Ca2+ Release Channel (Ryanodine) Tj ETQq1 1 0.784314 rgBT /Overlock 22759-22763.	3.4	34
40	An RYR1 mutation associated with malignant hyperthermia is also associated with bleeding abnormalities. Science Signaling, 2016, 9, ra68.	3.6	34
41	STIM1 over-activation generates a multi-systemic phenotype affecting the skeletal muscle, spleen, eye, skin, bones and immune system in mice. Human Molecular Genetics, 2019, 28, 1579-1593.	2.9	34
42	Functional Properties of RYR1 Mutations Identified in Swedish Patients with Malignant Hyperthermia and Central Core Disease. Anesthesia and Analgesia, 2010, 111, 185-190.	2.2	33
43	Identification of a novel 45 kDa protein (JP-45) from rabbit sarcoplasmic-reticulum junctional-face membrane. Biochemical Journal, 2000, 351, 537-543.	3.7	30
44	The junctional SR protein JP-45 affects the functional expression of the voltage-dependent Ca2+ channel Cav1.1. Journal of Cell Science, 2006, 119, 2145-2155.	2.0	30
45	Functional effects of mutations identified in patients with Multiminicore disease. IUBMB Life, 2007, 59, 14-20.	3.4	30
46	Ryanodine Receptor Activation by Cav1.2 Is Involved in Dendritic Cell Major Histocompatibility Complex Class II Surface Expression. Journal of Biological Chemistry, 2008, 283, 34913-34922.	3.4	29
47	Frequent Calcium Oscillations Lead to NFAT Activation in Human Immature Dendritic Cells. Journal of Biological Chemistry, 2010, 285, 16003-16011.	3.4	29
48	Current and future therapeutic approaches to the congenital myopathies. Seminars in Cell and Developmental Biology, 2017, 64, 191-200.	5.0	29
49	Two central core disease (CCD) deletions in the C-terminal region of RYR1 alter muscle excitation-contraction (EC) coupling by distinct mechanisms. Human Mutation, 2007, 28, 61-68.	2.5	26
50	Increased Ca2+ storage capacity of the skeletal muscle sarcoplasmic reticulum of transgenic mice over-expressing membrane bound calcium binding protein junctate. Journal of Cellular Physiology, 2007, 213, 464-474.	4.1	23
51	Enhanced excitation-coupled Ca2+ entry induces nuclear translocation of NFAT and contributes to IL-6 release from myotubes from patients with central core disease. Human Molecular Genetics, 2011, 20, 589-600.	2.9	22
52	Clinical, morphological and genetic characterization of Brody disease: an international study of 40 patients. Brain, 2020, 143, 452-466.	7.6	22
53	Quantitative RyR1 reduction and loss of calcium sensitivity of RyR1Q1970fsX16+A4329D cause cores and loss of muscle strength. Human Molecular Genetics, 2019, 28, 2987-2999.	2.9	21
54	SRP-27 is a novel component of the supramolecular signalling complex involved in skeletal muscle excitationâ€“contraction coupling. Biochemical Journal, 2008, 411, 343-349.	3.7	20

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55	Cellular, biochemical and molecular changes in muscles from patients with X-linked myotubular myopathy due toMTM1mutations. Human Molecular Genetics, 2016, 26, ddw388.	2.9	20
56	Ca2+ signaling through ryanodine receptor 1 enhances maturation and activation of human dendritic cells. Journal of Cell Science, 2007, 120, 2232-2240.	2.0	19
57	Establishment of a human skeletal muscle-derived cell line: biochemical, cellular and electrophysiological characterization. Biochemical Journal, 2013, 455, 169-177.	3.7	19
58	Ca2+ handling abnormalities in early-onset muscle diseases: Novel concepts and perspectives. Seminars in Cell and Developmental Biology, 2017, 64, 201-212.	5.0	19
59	Over-expression of a retinol dehydrogenase (SRP35/DHRS7C) in skeletal muscle activates mTORC2, enhances glucose metabolism and muscle performance. Scientific Reports, 2018, 8, 636.	3.3	19
60	Rapid subcellular calcium responses and dynamics by calcium sensor G-CatchER+. IScience, 2021, 24, 102129.	4.1	19
61	The metabolomic profile of gamma-irradiated human hepatoma and muscle cells reveals metabolic changes consistent with the Warburg effect. PeerJ, 2016, 4, e1624.	2.0	18
62	Upstream stimulatory factors are involved in the P1 promoter directed transcription of the AbetaH-J-J locus. BMC Molecular Biology, 2008, 9, 110.	3.0	16
63	A recessive ryanodine receptor 1 mutation in a CCD patient increases channel activity. Cell Calcium, 2009, 45, 192-197.	2.4	16
64	Alterations of excitation-contraction coupling and excitation coupled Ca2+ entry in human myotubes carrying CAV3 mutations linked to rippling muscle. Human Mutation, 2011, 32, 309-317.	2.5	15
65	Multiple Levels of Control of the Expression of the Human AÎ²H-J-J Locus Encoding Aspartyl-Î²-hydroxylase, Junctin, and Junctate. Annals of the New York Academy of Sciences, 2006, 1091, 184-190.	3.8	14
66	Transcriptional activity and Sp 1/3 transcription factor binding to the P1 promoter sequences of the human AÎ²Hâ€Jâ€J locus. FEBS Journal, 2007, 274, 4476-4490.	4.7	14
67	Screening of the Ryanodine 1 Gene for Malignant Hyperthermia Causative Mutations by High Resolution Melt Curve Analysis. Anesthesia and Analgesia, 2011, 113, 1120-1128.	2.2	14
68	Gain of function of the immune system caused by a ryanodine receptor 1 mutation. Journal of Cell Science, 2013, 126, 3485-92.	2.0	14
69	Aberrant regulation of epigenetic modifiers contributes to the pathogenesis in patients with selenoprotein N â€ related myopathies. Human Mutation, 2019, 40, 962-974.	2.5	13
70	Myocyte Enhancer Factor 2 Activates Promoter Sequences of the Human AÎ²H-J-J Locus, Encoding Aspartyl-Î²-Hydroxylase, Junctin, and Junctate. Molecular and Cellular Biology, 2005, 25, 3261-3275.	2.3	12
71	SRP-35, a newly identified protein of the skeletal muscle sarcoplasmic reticulum, is a retinol dehydrogenase. Biochemical Journal, 2012, 441, 731-741.	3.7	12
72	JP-45/JSRP1Variants Affect Skeletal Muscle Excitation-Contraction Coupling by Decreasing the Sensitivity of the Dihydropyridine Receptor. Human Mutation, 2013, 34, 184-190.	2.5	12

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73	Role of the JP45-Calsequestrin Complex on Calcium Entry in Slow Twitch Skeletal Muscles. Journal of Biological Chemistry, 2016, 291, 14555-14565.	3.4	12
74	Variable Myopathic Presentation in a Single Family with Novel Skeletal RYR1 Mutation. PLoS ONE, 2013, 8, e69296.	2.5	12
75	Pre-operative exercise and pyrexia as modifying factors in malignant hyperthermia (MH). Neuromuscular Disorders, 2022, 32, 628-634.	0.6	12
76	Extraocular muscle function is impaired in ryr3â^'/â^' mice. Journal of General Physiology, 2019, 151, 929-943.	1.9	11
77	RYR1-Related Rhabdomyolysis: A Spectrum of Hypermetabolic States Due to Ryanodine Receptor Dysfunction. Current Pharmaceutical Design, 2022, 28, 2-14.	1.9	11
78	Raptor ablation in skeletal muscle decreases Cav1.1 expression and affects the function of the excitationâ€“contraction coupling supramolecular complex. Biochemical Journal, 2015, 466, 123-135.	3.7	10
79	Characterization of excitationâ€“contraction coupling components in human extraocular muscles. Biochemical Journal, 2015, 466, 29-36.	3.7	10
80	Identification of a novel 45ÂkDa protein (JP-45) from rabbit sarcoplasmic-reticulum junctional-face membrane. Biochemical Journal, 2000, 351, 537.	3.7	9
81	Functional characterization of orbicularis oculi and extraocular muscles. Journal of General Physiology, 2016, 147, 395-406.	1.9	9
82	Methyl p-hydroxybenzoate (E-218) a preservative for drugs and food is an activator of the ryanodine receptor Ca2+ release channel. British Journal of Pharmacology, 2000, 131, 335-341.	5.4	8
83	Functional characterization of the RYR1 mutation p.Arg4737Trp associated with susceptibility to malignant hyperthermia. Neuromuscular Disorders, 2016, 26, 21-25.	0.6	8
84	Quantitative reduction of RyR1 protein caused by a single-allele frameshift mutation in RYR1 ex36 impairs the strength of adult skeletal muscle fibres. Human Molecular Genetics, 2019, 28, 1872-1884.	2.9	8
85	The neuromuscular and multisystem features of RYR1-related malignant hyperthermia and rhabdomyolysis. Medicine (United States), 2021, 100, e26999.	1.0	8
86	Improvement of muscle strength in a mouse model for congenital myopathy treated with HDAC and DNA methyltransferase inhibitors. ELife, 2022, 11, .	6.0	7
87	Endogenously determined restriction of food intake overcomes excitationâ€“contraction uncoupling in JP45KO mice with aging. Experimental Gerontology, 2012, 47, 304-316.	2.8	6
88	Molecular basis of impaired extraocular muscle function in a mouse model of congenital myopathy due to compound heterozygous Ryr1 mutations. Human Molecular Genetics, 2020, 29, 1330-1339.	2.9	5
89	Bi-allelic expression of the RyR1 p.A4329D mutation decreases muscle strength in slow-twitch muscles in mice. Journal of Biological Chemistry, 2020, 295, 10331-10339.	3.4	4
90	Malignant Hyperthermia Domain in the Regulation of Ca2+ Release Channel (Ryanodine Receptor). Trends in Cardiovascular Medicine, 1997, 7, 312-316.	4.9	3

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91	3D Structural Illumination Microscopy of the Skeletal Muscle Excitation-Contraction Coupling Macromolecular Complex. Biophysical Journal, 2013, 104, 105a.	0.5	2
92	Comment on â€œOverlapping Mechanisms of Exertional Heat Stroke and Malignant Hyperthermia: Evidence vs. Conjectureâ€. Sports Medicine, 2021, , 1.	6.5	2
93	Novel Local RYR1 Junctional Calcium Responses and Dynamics by Improved Calcium Sensor Catcher. Biophysical Journal, 2017, 112, 331a.	0.5	1
94	Biochemical and Mechanical Properties of Murine Extraocular Muscles. Biophysical Journal, 2017, 112, 101a-102a.	0.5	1
95	TIRF. Imaging & Microscopy, 2009, 11, 52-53.	0.1	0
96	Ryanodine receptor 1 signaling in dendritic cells. Biophysical Journal, 2009, 96, 122a.	0.5	0
97	SRP-35 A Putative NAD(P)H Binding Protein Of Skeletal Muscle Sarcoplasmic Reticulum Membrane. Biophysical Journal, 2009, 96, 235a.	0.5	0
98	Altering Skeletal Muscle EC Coupling by Ablating the Sarcoplasmic Reticulum Protein JP45 Affects Both Metabolism and Muscle Performance in Old Mice. Biophysical Journal, 2010, 98, 547a.	0.5	0
99	Novel Insights into the Role of Junctate in Calcium Homeostasis: Identification of Binding Domain on the InsP3R and Cellular Localization as Determined by TIRF Microscopy. Biophysical Journal, 2010, 98, 513a.	0.5	0
100	Calcium Influx Analysis by TIRF Microscopy on Cultured Primary Myotubes from Patients with RyR1 Mutations. Biophysical Journal, 2010, 98, 509a.	0.5	0
101	Downstream Effects of a RyR1 Mutation Linked to Malignant Hyperthermia on the Phenotypic and Functional Characteristic of Dendritic Cells. Biophysical Journal, 2012, 102, 307a.	0.5	0
102	Upregulation of Calcium Influx via Cav1.1 in Skeletal Muscle Fibers from JP-45 Calsequestrin 1 Double Knock Out Mice. Biophysical Journal, 2012, 102, 364a.	0.5	0
103	Physiological Role(S) of RyR1 in Smooth Muscle Cells. Biophysical Journal, 2013, 104, 443a-444a.	0.5	0
104	Role of sarcoplasmic reticulum junctional proteins in skeletal muscle strength. BMC Anesthesiology, 2014, 14, .	1.8	0
105	Biochemical, Cellular and Electrophysiological Characterization of HMCL-7304 a Human Skeletal Muscle-Derived Cell Line. Biophysical Journal, 2014, 106, 446a.	0.5	0
106	Raptor Ablation in Skeletal Muscle Affects the Structure and Function of the Excitation-Contraction Coupling Macromolecular Complex. Biophysical Journal, 2014, 106, 123a.	0.5	0
107	Excitation-Contraction Coupling in Human Extraocular Muscles:There is more than Meets the Eye. Biophysical Journal, 2015, 108, 420a.	0.5	0
108	Differential Role of Calsequestrin Isoforms on Calcium Entry in Skeletal Muscle FDB Fibres. Biophysical Journal, 2015, 108, 269a.	0.5	0

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109	Altered Eye Muscle Function in RYR3KO Mice. Biophysical Journal, 2018, 114, 469a.	0.5	0
110	Biochemical and Epigenetic Modifications Occur in Muscles of Patients with Selenoprotein N Related Congenital Myopathy. Biophysical Journal, 2019, 116, 153a.	0.5	0
111	Characterization of an Animal Model for Congenital Myopathies Linked to Recessive RyR1 Mutations. Biophysical Journal, 2019, 116, 522a.	0.5	0
112	Functional Characterization of Endogenously Expressed Human RYR1 Variants. Journal of Visualized Experiments, 2021, , .	0.3	0
113	Functional characterization of orbicularis oculi and extraocular muscles. Journal of Cell Biology, 2016, 213, 2133OIA96.	5.2	0
114	Role of Calcium in Neutrophil Activation. , 2018, , 199-218.		0
115	Molecular basis of impaired muscle function in a mouse model of congenital myopathy due to compound heterozygous RYR1 mutations. Journal of General Physiology, 2022, 154, .	1.9	0