Robyn M Murphy

List of Publications by Year
in descending order

110 papers	3,824 citations	109321 35 h-index	161849 54 g-index
117 all docs	117 docs citations	117 times ranked	4039 citing authors

#	Article	IF	Citations
1	Creatine and the creatine transporter: a review. , 2001, 224, 169-181.		151
2	Superior mitochondrial adaptations in human skeletal muscle after interval compared to continuous singleâ€leg cycling matched for total work. Journal of Physiology, 2017, 595, 2955-2968.	2.9	148
3	Calsequestrin content and SERCA determine normal and maximal Ca²⁺ storage levels in sarcoplasmic reticulum of fastâ€and slowâ€twitch fibres of rat. Journal of Physiology, 2009, 587, 443-460.	2.9	130
4	Important considerations for protein analyses using antibody based techniques: downâ€sizing Western blotting upâ€sizes outcomes. Journal of Physiology, 2013, 591, 5823-5831.	2.9	119
5	Ca2+activation of diffusible and bound pools of Î¼-calpain in rat skeletal muscle. Journal of Physiology, 2006, 576, 595-612.	2.9	103
6	Ca²⁺â€dependent proteolysis of junctophilinâ€1 and junctophilinâ€2 in skeletal and cardiac muscle. Journal of Physiology, 2013, 591, 719-729.	2.9	103
7	Effects of carnosine on contractile apparatus Ca²⁺sensitivity and sarcoplasmic reticulum Ca²⁺release in human skeletal muscle fibers. Journal of Applied Physiology, 2012, 112, 728-736.	2.5	102
8	Metabolic communication during exercise. Nature Metabolism, 2020, 2, 805-816.	11.9	97
9	<i>S</i>â€Glutathionylation of troponin I (fast) increases contractile apparatus Ca²⁺ sensitivity in fastâ€twitch muscle fibres of rats and humans. Journal of Physiology, 2012, 590, 1443-1463.	2.9	90
10	Creatine supplementation increases glycogen storage but not GLUT-4 expression in human skeletal muscle. Clinical Science, 2004, 106, 99-106.	4.3	86
11	Upregulation of store-operated Ca²⁺ entry in dystrophic <i>mdx</i> mouse muscle. American Journal of Physiology - Cell Physiology, 2010, 299, C42-C50.	4.6	80
12	Effect of carbohydrate ingestion on exercise-induced alterations in metabolic gene expression. Journal of Applied Physiology, 2005, 99, 1359-1363.	2.5	79
13	Contractile properties and sarcoplasmic reticulum calcium content in typeÂI and typeÂII skeletal muscle fibres in active aged humans. Journal of Physiology, 2015, 593, 2499-2514.	2.9	79
14	Hydroxyl radical and glutathione interactions alter calcium sensitivity and maximum force of the contractile apparatus in rat skeletal muscle fibres. Journal of Physiology, 2008, 586, 2203-2216.	2.9	75
15	Are genuine changes in protein expression being overlooked? Reassessing Western blotting. Analytical Biochemistry, 2009, 386, 270-275.	2.4	71
16	Enhanced technique to measure proteins in single segments of human skeletal muscle fibers: fiber-type dependence of AMPK-Î±₁ and -Î²₁. Journal of Applied Physiology, 2011, 110, 820-825.	2.5	71
17	Ultra-rapid activation and deactivation of store-operated Ca2+ entry in skeletal muscle. Cell Calcium, 2010, 47, 458-467.	2.4	68
18	Creatine transporters: A reappraisal. Molecular and Cellular Biochemistry, 2004, 256, 407-424.	3.1	65

#	Article	IF	Citations
19	Calpain-3 is autolyzed and hence activated in human skeletal muscle 24 h following a single bout of eccentric exercise. Journal of Applied Physiology, 2007, 103, 926-931.	2.5	65
20	Taurine supplementation increases skeletal muscle force production and protects muscle function during and after high-frequency in vitro stimulation. Journal of Applied Physiology, 2009, 107, 144-154.	2.5	65
21	Disruption of excitation-contraction coupling and titin by endogenous Ca2+-activated proteases in toad muscle fibres. Journal of Physiology, 2005, 564, 775-790.	2.9	64
22	Increased <i>FXYD1</i> and <i>PGCâ€1</i>Î± mRNA after blood flowâ€restricted running is related to fibre typeâ€specific AMPK signalling and oxidative stress in human muscle. Acta Physiologica, 2018, 223, e13045.	3.8	63
23	Toward the roles of store-operated Ca2+ entry in skeletal muscle. Pflugers Archiv European Journal of Physiology, 2010, 460, 813-823.	2.8	60
24	Preservation of skeletal muscle mitochondrial content in older adults: relationship between mitochondria, fibre type and highâ€intensity exercise training. Journal of Physiology, 2017, 595, 3345-3359.	2.9	60
25	Intense exercise up-regulates Na+,K+-ATPase isoform mRNA, but not protein expression in human skeletal muscle. Journal of Physiology, 2004, 556, 507-519.	2.9	58
26	Chloride conductance in the transverse tubular system of rat skeletal muscle fibres: importance in excitationâ€“contraction coupling and fatigue. Journal of Physiology, 2008, 586, 875-887.	2.9	53
27	Plasma membrane removal in rat skeletal muscle fibers reveals caveolin-3 hot-spots at the necks of transverse tubules. Experimental Cell Research, 2009, 315, 1015-1028.	2.6	53
28	Endogenous and maximal sarcoplasmic reticulum calcium content and calsequestrin expression in type I and type II human skeletal muscle fibres. Journal of Physiology, 2013, 591, 6053-6068.	2.9	53
29	Î¼-Calpain and calpain-3 are not autolyzed with exhaustive exercise in humans. American Journal of Physiology - Cell Physiology, 2006, 290, C116-C122.	4.6	51
30	Sarcoplasmic reticulum Ca²⁺ uptake and leak properties, and SERCA isoform expression, in type I and type II fibres of human skeletal muscle. Journal of Physiology, 2014, 592, 1381-1395.	2.9	48
31	Endogenous Calpain-3 Activation Is Primarily Governed by Small Increases in Resting Cytoplasmic [Ca2+] and Is Not Dependent on Stretch. Journal of Biological Chemistry, 2009, 284, 7811-7819.	3.4	46
32	Calpains, skeletal muscle function and exercise. Clinical and Experimental Pharmacology and Physiology, 2010, 37, 385-391.	1.9	42
33	Altered Ca2+ Kinetics Associated with Î±-Actinin-3 Deficiency May Explain Positive Selection for ACTN3 Null Allele in Human Evolution. PLoS Genetics, 2015, 11, e1004862.	3.5	39
34	<i>S</i>-nitrosylation and<i>S</i>-glutathionylation of Cys134 on troponin I have opposing competitive actions on Ca²⁺sensitivity in rat fast-twitch muscle fibers. American Journal of Physiology - Cell Physiology, 2017, 312, C316-C327.	4.6	39
35	Quantification of calsequestrin 2 (CSQ2) in sheep cardiac muscle and Ca²⁺-binding protein changes in CSQ2 knockout mice. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H595-H604.	3.2	38
36	Ca²⁺ leakage out of the sarcoplasmic reticulum is increased in type I skeletal muscle fibres in aged humans. Journal of Physiology, 2016, 594, 469-481.	2.9	38

#	Article	IF	Citations
37	Involvement of calpains in Ca²⁺-induced disruption of excitation-contraction coupling in mammalian skeletal muscle fibers. American Journal of Physiology - Cell Physiology, 2009, 296, C1115-C1122.	4.6	37
38	Factors Influencing Creatine Loading into Human Skeletal Muscle. Exercise and Sport Sciences Reviews, 2003, 31, 154-158.	3.0	36
39	Acute effects of taurine on sarcoplasmic reticulum Ca²⁺ accumulation and contractility in human type I and type II skeletal muscle fibers. Journal of Applied Physiology, 2014, 117, 797-805.	2.5	36
40	The SarcoEndoplasmic Reticulum Calcium ATPase (SERCA) pump: a potential target for intervention in aging and skeletal muscle pathologies. Skeletal Muscle, 2021, 11, 25.	4.2	35
41	Fibre typeâ€specific change in FXYD1 phosphorylation during acute intense exercise in humans. Journal of Physiology, 2013, 591, 1523-1533.	2.9	34
42	A quantitative description of tubular system Ca²⁺ handling in fastâ€and slowâ€twitch muscle fibres. Journal of Physiology, 2016, 594, 2795-2810.	2.9	32
43	Human skeletal muscle plasmalemma alters its structure to change its Ca2+-handling following heavy-load resistance exercise. Nature Communications, 2017, 8, 14266.	12.8	32
44	Store-Operated Ca2+ Entry (SOCE) and Purinergic Receptor-Mediated Ca2+ Homeostasis in Murine bv2 Microglia Cells: Early Cellular Responses to ATP-Mediated Microglia Activation. Frontiers in Molecular Neuroscience, 2016, 9, 111.	2.9	31
45	Junctional membrane Ca ²⁺ dynamics in human muscle fibers are altered by malignant hyperthermia causative RyR mutation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8215-8220.	7.1	31
46	Muscle mitochondrial catalase expression prevents neuromuscular junction disruption, atrophy, and weakness in a mouse model of accelerated sarcopenia. Journal of Cachexia, Sarcopenia and Muscle, 2021, 12, 1582-1596.	7.3	30
47	Small heat shock proteins translocate to the cytoskeleton in human skeletal muscle following eccentric exercise independently of phosphorylation. Journal of Applied Physiology, 2014, 116, 1463-1472.	2.5	29
48	Dissociation between short-term unloading and resistance training effects on skeletal muscle Na⁺,K⁺-ATPase, muscle function, and fatigue in humans. Journal of Applied Physiology, 2016, 121, 1074-1086.	2.5	28
49	Impact of exercise training status on the fiber type-specific abundance of proteins regulating intramuscular lipid metabolism. Journal of Applied Physiology, 2020, 128, 379-389.	2.5	28
50	Absolute amounts and diffusibility of HSP72, HSP25, and Î±B-crystallin in fast- and slow-twitch skeletal muscle fibers of rat. American Journal of Physiology - Cell Physiology, 2012, 302, C228-C239.	4.6	27
51	Single fiber analyses of glycogen-related proteins reveal their differential association with glycogen in rat skeletal muscle. American Journal of Physiology - Cell Physiology, 2012, 303, C1146-C1155.	4.6	27
52	Changes in plasma membrane Ca-ATPase and stromal interacting molecule 1 expression levels for Ca²⁺ signaling in dystrophic <i>mdx</i> mouse muscle. American Journal of Physiology - Cell Physiology, 2012, 303, C567-C576.	4.6	26
53	The effect of taurine and Î²-alanine supplementation on taurine transporter protein and fatigue resistance in skeletal muscle from mdx mice. Amino Acids, 2016, 48, 2635-2645.	2.7	25
54	A fast, reliable and sample-sparing method to identify fibre types of single muscle fibres. Scientific Reports, 2019, 9, 6473.	3.3	25

#	Article	IF	Citations
55	Effect of creatine on contractile force and sensitivity in mechanically skinned single fibers from rat skeletal muscle. American Journal of Physiology - Cell Physiology, 2004, 287, C1589-C1595.	4.6	24
56	Activation of skeletal muscle calpain-3 by eccentric exercise in humans does not result in its translocation to the nucleus or cytosol. Journal of Applied Physiology, 2011, 111, 1448-1458.	2.5	24
57	Influences of temperature, oxidative stress, and phosphorylation on binding of heat shock proteins in skeletal muscle fibers. American Journal of Physiology - Cell Physiology, 2012, 303, C654-C665.	4.6	24
58	Characterization of muscle ankyrin repeat proteins in human skeletal muscle. American Journal of Physiology - Cell Physiology, 2017, 313, C327-C339.	4.6	24
59	Storeâ€operated calcium entry remains fully functional in aged mouse skeletal muscle despite a decline in STIM1 protein expression. Aging Cell, 2011, 10, 675-685.	6.7	23
60	Single-fiber expression and fiber-specific adaptability to short-term intense exercise training of Na⁺-K⁺-ATPase Î±- and Î²-isoforms in human skeletal muscle. Journal of Applied Physiology, 2015, 118, 699-706.	2.5	22
61	Cell specific differences in the protein abundances of GAPDH and Na+,K+-ATPase in skeletal muscle from aged individuals. Experimental Gerontology, 2016, 75, 8-15.	2.8	22
62	Intense interval training in healthy older adults increases skeletal muscle [³ H]ouabain-binding site content and elevates Na⁺ ,K⁺ -ATPase Î±₂ isoform abundance in Type II fibers. Physiological Reports, 2017, 5, e13219.	1.7	22
63	Controversies in TWEAK-Fn14 signaling in skeletal muscle atrophy and regeneration. Cellular and Molecular Life Sciences, 2020, 77, 3369-3381.	5.4	22
64	Insights into the role and regulation of TCTP in skeletal muscle. Oncotarget, 2017, 8, 18754-18772.	1.8	21
65	Abundance of ClC-1 chloride channel in human skeletal muscle: fiber type specific differences and effect of training. Journal of Applied Physiology, 2018, 125, 470-478.	2.5	20
66	Ryanodine receptor leak triggers fiber Ca ²⁺ redistribution to preserve force and elevate basal metabolism in skeletal muscle. Science Advances, 2021, 7, eabi7166.	10.3	20
67	Maternal Nutrient Restriction Alters Ca2+ Handling Properties and Contractile Function of Isolated Left Ventricle Bundles in Male But Not Female Juvenile Rats. PLoS ONE, 2015, 10, e0138388.	2.5	19
68	Human skeletal muscle fiber type-specific responses to sprint interval and moderate-intensity continuous exercise: acute and training-induced changes. Journal of Applied Physiology, 2021, 130, 1001-1014.	2.5	19
69	Cold-water immersion after training sessions: effects on fiber type-specific adaptations in muscle K⁺transport proteins to sprint-interval training in men. Journal of Applied Physiology, 2018, 125, 429-444.	2.5	18
70	Distribution and activation of matrix metalloproteinase-2 in skeletal muscle fibers. American Journal of Physiology - Cell Physiology, 2019, 317, C613-C625.	4.6	16
71	Skeletal muscle atrophy in sedentary Zucker obese rats is not caused by calpain-mediated muscle damage or lipid peroxidation induced by oxidative stress. Journal of Negative Results in BioMedicine, 2014, 13, 19.	1.4	15
72	Perilipin 5 is dispensable for normal substrate metabolism and in the adaptation of skeletal muscle to exercise training. American Journal of Physiology - Endocrinology and Metabolism, 2016, 311, E128-E137.	3.5	15

#	Article	IF	Citations
73	Mitochondrial content is preserved throughout disease progression in the <i>mdx</i> mouse model of Duchenne muscular dystrophy, regardless of taurine supplementation. American Journal of Physiology - Cell Physiology, 2018, 314, C483-C491.	4.6	15
74	Physiological and biochemical characteristics of skeletal muscles in sedentary and active rats. Journal of Muscle Research and Cell Motility, 2018, 39, 1-16.	2.0	15
75	Title is missing!. Molecular and Cellular Biochemistry, 2003, 244, 151-157.	3.1	14
76	Glucose uptake during contraction in isolated skeletal muscles from neuronal nitric oxide synthase Î¼ knockout mice. Journal of Applied Physiology, 2015, 118, 1113-1121.	2.5	14
77	Changes in contractile and metabolic parameters of skeletal muscle as rats age from 3 to 12 months. Journal of Muscle Research and Cell Motility, 2017, 38, 405-420.	2.0	14
78	Preaged remodeling of myofibrillar cytoarchitecture in skeletal muscle expressing R349P mutant desmin. Neurobiology of Aging, 2017, 58, 77-87.	3.1	13
79	Dysferlin-deficiency has greater impact on function of slow muscles, compared with fast, in aged BLAJ mice. PLoS ONE, 2019, 14, e0214908.	2.5	13
80	Benefits of Pre-natal Taurine Supplementation in Preventing the Onset of Acute Damage in the Mdx Mouse. PLOS Currents, 2017, 9, .	1.4	12
81	On the localization of ClC-1 in skeletal muscle fibers. Journal of General Physiology, 2011, 137, 327-329.	1.9	11
82	Exercise and GLUT4 in human subcutaneous adipose tissue. Physiological Reports, 2018, 6, e13918.	1.7	11
83	MicroRNA-99b-5p downregulates protein synthesis in human primary myotubes. American Journal of Physiology - Cell Physiology, 2020, 319, C432-C440.	4.6	11
84	Subcellular fractionation reveals HSP72 does not associate with SERCA in human skeletal muscle following damaging eccentric and concentric exercise. Journal of Applied Physiology, 2014, 116, 1503-1511.	2.5	9
85	Effect of androgen deprivation therapy on the contractile properties of type I and type <scp>II</scp> skeletal muscle fibres in men with nonâ€metastatic prostate cancer. Clinical and Experimental Pharmacology and Physiology, 2018, 45, 146-154.	1.9	9
86	Isolation of Sarcolemmal Plasma Membranes by Mechanically Skinning Rat Skeletal Muscle Fibers for Phospholipid Analysis. Lipids, 2013, 48, 421-430.	1.7	8
87	Rat skeletal muscle glycogen degradation pathways reveal differential association of glycogen-related proteins with glycogen granules. Journal of Physiology and Biochemistry, 2015, 71, 267-280.	3.0	8
88	Effects of voluntary wheel running on mitochondrial content and dynamics in rat skeletal muscle. Journal of Muscle Research and Cell Motility, 2021, 42, 67-76.	2.0	7
89	Calpain-3 is activated following eccentric exercise. Journal of Applied Physiology, 2009, 106, 2068-2068.	2.5	6
90	When phosphorylated at Thr¹⁴⁸, the Î²₂-subunit of AMP-activated kinase does not associate with glycogen in skeletal muscle. American Journal of Physiology - Cell Physiology, 2016, 311, C35-C42.	4.6	6

#	Article	IF	Citations
91	The effect of intrauterine growth restriction on Ca2+-activated force and contractile protein expression in the mesenteric artery of adult (6-month-old) male and female Wistar-Kyoto rats. Physiological Reports, 2018, 6, e13954.	1.7	6
92	Skeletal muscle cell-specific differences in type 2 diabetes. Cellular and Molecular Life Sciences, 2022, 79, 256.	5.4	6
93	Age Related Changes in Muscle Mass and Force Generation in the Triple Transgenic (3xTgAD) Mouse Model of Alzheimerâ€™s Disease. Frontiers in Aging Neuroscience, 2022, 14, 876816.	3.4	6
94	Time course and fibre typeâ€dependent nature of calciumâ€handling protein responses to sprint interval exercise in human skeletal muscle. Journal of Physiology, 2022, 600, 2897-2917.	2.9	6
95	Expression of titin-linked putative mechanosensing proteins in skeletal muscle after power resistance exercise in resistance-trained men. Journal of Applied Physiology, 2021, 130, 545-561.	2.5	5
96	Nuclei isolation methods fail to accurately assess the subcellular localization and behaviour of proteins in skeletal muscle. Acta Physiologica, 2021, 233, e13730.	3.8	5
97	Human skeletal muscle creatine transporter mRNA and protein expression in healthy, young males and females. Molecular and Cellular Biochemistry, 2003, 244, 151-7.	3.1	5
98	Taurine and Methylprednisolone Administration at Close Proximity to the Onset of Muscle Degeneration Is Ineffective at Attenuating Force Loss in the Hind-Limb of 28 Days Mdx Mice. Sports, 2018, 6, 109.	1.7	4
99	Autophagy is not involved in lipid accumulation and the development of insulin resistance in skeletal muscle. Biochemical and Biophysical Research Communications, 2021, 534, 533-539.	2.1	4
100	No evidence of direct association between GLUT4 and glycogen in human skeletal muscle. Physiological Reports, 2018, 6, e13917.	1.7	3
101	Elevated MMP2 abundance and activity in mdx mice are alleviated by prenatal taurine supplementation. American Journal of Physiology - Cell Physiology, 2020, 318, C1083-C1091.	4.6	3
102	Clarity for 5â€²â€AMPâ€activated protein kinase â€“ dissecting out human skeletal muscle responses to exercise. Journal of Physiology, 2015, 593, 1769-1770.	2.9	1
103	Effects of intrauterine growth restriction on Ca2+-activated force and contractile protein expression in the mesenteric artery of 1-year-old Wistar-Kyoto rats. Journal of Physiology and Biochemistry, 2020, 76, 111-121.	3.0	1
104	CT, Creatine Transporter. , 2007, , 1-15.		0
105	Comparative analysis of caveolins in mouse and tammar wallaby: Role in regulating mammary gland function. Gene, 2014, 552, 51-58.	2.2	0
106	Reply to â€œLetter to the editor: Comments on Wette et al. (2017): â€˜Characterization of muscle ankyrin repeat proteins in human skeletal muscleâ€™â€. American Journal of Physiology - Cell Physiology, 2017, 313, C471-C472.	4.6	0
107	Ischaemic exercise enhances mitochondrial and ion transport gene adaptations in trained human skeletal muscle: Role of cellular redox state, AMPK and CaMKII signalling. Japanese Journal of Physical Fitness and Sports Medicine, 2017, 66, 75-75.	0.0	0
108	Elevated GLUT4 and glycogenin protein abundance correspond to increased glycogen content in the soleus muscle of <i>mdx</i> mice with no benefit associated with taurine supplementation. Physiological Reports, 2018, 6, e13596.	1.7	0

#	Article	IF	Citations
109	Assessing Membrane Micro-domain Physiology from the Inside-Out Using Confocal Microscopy. Microscopy and Microanalysis, 2019, 25, 1082-1083.	0.4	0
110	Human skeletal muscle creatine transporter mRNA and protein expression in healthy, young males and females. , 2003, , 151-157.		0