Russell T Hepple

List of Publications by Year
in descending order

106 papers	5,788 citations	76031 42 h-index	90395 73 g-index
110 all docs	110 docs citations	110 times ranked	7875 citing authors

#	Article	IF	Citations
1	Chronic aryl hydrocarbon receptor activity phenocopies smokingâ€induced skeletal muscle impairment. Journal of Cachexia, Sarcopenia and Muscle, 2022, 13, 589-604.	2.9	19
2	Unbiased proteomics, histochemistry, and mitochondrial DNA copy number reveal better mitochondrial health in muscle of high-functioning octogenarians. ELife, 2022, 11, .	2.8	7
3	Integrating Mechanisms of Exacerbated Atrophy and Other Adverse Skeletal Muscle Impact in COPD. Frontiers in Physiology, 2022, 13, .	1.3	2
4	Mitochondrial Permeability Transition Causes Mitochondrial Reactive Oxygen Species- and Caspase 3-Dependent Atrophy of Single Adult Mouse Skeletal Muscle Fibers. Cells, 2021, 10, 2586.	1.8	9
5	Impaired muscle mitochondrial energetics is associated with uremic metabolite accumulation in chronic kidney disease. JCI Insight, 2021, 6, .	2.3	47
6	Variation in muscle and neuromuscular junction morphology between atrophy-resistant and atrophy-prone muscles supports failed re-innervation in aging muscle atrophy. Experimental Gerontology, 2021, 156, 111613.	1.2	11
7	Extreme variation in testes size in an insect is linked to recent mating activity. Journal of Evolutionary Biology, 2020, 33, 142-150.	0.8	11
8	mtDNA Mutation Accumulation in Muscle Is Not a Major Cause of Fiber Loss. Reply to â€œComment on: Mitochondrial Mechanisms of Neuromuscular Junction Degeneration with Aging. Cells 2020, 9, 197â€• Cells, 2020, 9, 1821.	1.8	1
9	Mitochondrial Mechanisms of Neuromuscular Junction Degeneration with Aging. Cells, 2020, 9, 197.	1.8	38
10	Mitochondrial Content, but Not Function, Is Altered With a Multimodal Resistance Training Protocol and Adequate Protein Intake in Leucine-Supplemented Pre/Frail Women. Frontiers in Nutrition, 2020, 7, 619216.	1.6	8
11	Fidelity of muscle fibre reinnervation modulates ageing muscle impact in elderly women. Journal of Physiology, 2019, 597, 5009-5023.	1.3	62
12	Reduced Mitochondrial Content, Elevated Reactive Oxygen Species, and Modulation by Denervation in Skeletal Muscle of Prefrail or Frail Elderly Women. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2019, 74, 1887-1895.	1.7	30
13	Colon 26 adenocarcinoma (C26)-induced cancer cachexia impairs skeletal muscle mitochondrial function and content. Journal of Muscle Research and Cell Motility, 2019, 40, 59-65.	0.9	21
14	Protective role of Parkin in skeletal muscle contractile and mitochondrial function. Journal of Physiology, 2018, 596, 2565-2579.	1.3	72
15	Smokeâ€induced neuromuscular junction degeneration precedes the fibre type shift and atrophy in chronic obstructive pulmonary disease. Journal of Physiology, 2018, 596, 2865-2881.	1.3	34
16	When motor unit expansion in ageing muscle fails, atrophy ensues. Journal of Physiology, 2018, 596, 1545-1546.	1.3	17
17	Mitochondrial energy deficiency leads to hyperproliferation of skeletal muscle mitochondria and enhanced insulin sensitivity. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2705-2710.	3.3	73
18	The impact of ageing, physical activity, and preâ€frailty on skeletal muscle phenotype, mitochondrial content, and intramyocellular lipids in men. Journal of Cachexia, Sarcopenia and Muscle, 2017, 8, 213-228.	2.9	106

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19	Eccentric Ergometer Training Promotes Locomotor Muscle Strength but Not Mitochondrial Adaptation in Patients with Severe Chronic Obstructive Pulmonary Disease. Frontiers in Physiology, 2017, 8, 114.	1.3	40
20	Editorial: Mitochondria in Skeletal Muscle Health, Aging and Diseases. Frontiers in Physiology, 2016, 7, 446.	1.3	28
21	Innervation and neuromuscular control in ageing skeletal muscle. Journal of Physiology, 2016, 594, 1965-1978.	1.3	242
22	Motor unit number and transmission stability in octogenarian world class athletes: Can age-related deficits be outrun?. Journal of Applied Physiology, 2016, 121, 1013-1020.	1.2	70
23	Failed reinnervation in aging skeletal muscle. Skeletal Muscle, 2016, 6, 29.	1.9	75
24	Denervation drives mitochondrial dysfunction in skeletal muscle of octogenarians. Journal of Physiology, 2016, 594, 7361-7379.	1.3	68
25	Failed upregulation of TFAM protein and mitochondrial DNA in oxidatively deficient fibers of chronic obstructive pulmonary disease locomotor muscle. Skeletal Muscle, 2016, 6, 10.	1.9	37
26	Exercise Promotes Healthy Aging of Skeletal Muscle. Cell Metabolism, 2016, 23, 1034-1047.	7.2	335
27	Impact of aging on mitochondrial function in cardiac and skeletal muscle. Free Radical Biology and Medicine, 2016, 98, 177-186.	1.3	54
28	Reduction in single muscle fiber rate of force development with aging is not attenuated in world class older masters athletes. American Journal of Physiology - Cell Physiology, 2016, 310, C318-C327.	2.1	46
29	Understanding the Cellular and Molecular Mechanisms of Physical Activity-Induced Health Benefits. Cell Metabolism, 2015, 22, 4-11.	7.2	345
30	Anthracycline-containing chemotherapy causes long-term impairment of mitochondrial respiration and increased reactive oxygen species release in skeletal muscle. Scientific Reports, 2015, 5, 8717.	1.6	59
31	The Relationship between Muscle Fiber Type-Specific PGC-1Î± Content and Mitochondrial Content Varies between Rodent Models and Humans. PLoS ONE, 2014, 9, e103044.	1.1	104
32	Fiber Typing in Aging Muscle. Exercise and Sport Sciences Reviews, 2014, 42, 45-52.	1.6	93
33	Exercise training initiated in late middle age attenuates cardiac fibrosis and advanced glycation end-product accumulation in senescent rats. Experimental Gerontology, 2014, 50, 9-18.	1.2	41
34	Increased sensitivity to mitochondrial permeability transition and myonuclear translocation of endonuclease G in atrophied muscle of physically active older humans. FASEB Journal, 2014, 28, 1621-1633.	0.2	159
35	Mitochondrial Involvement and Impact in Aging Skeletal Muscle. Frontiers in Aging Neuroscience, 2014, 6, 211.	1.7	115
36	Facts and controversies in our understanding of how caloric restriction impacts the mitochondrion. Experimental Gerontology, 2013, 48, 1075-1084.	1.2	35

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37	Role of peroxisome proliferator-activated receptor gamma coactivator 1-alpha (PGC-1Î±) in denervation-induced atrophy in aged muscle: facts and hypotheses. Longevity & Healthspan, 2013, 2, 13.	6.7	24
38	Autophagic flux and oxidative capacity of skeletal muscles during acute starvation. Autophagy, 2013, 9, 1604-1620.	4.3	59
39	Enhanced cardiac protein glycosylation (O-GlcNAc) of selected mitochondrial proteins in rats artificially selected for low running capacity. Physiological Genomics, 2013, 45, 17-25.	1.0	51
40	Muscle atrophy is not always sarcopenia. Journal of Applied Physiology, 2012, 113, 677-679.	1.2	28
41	Mitochondrial functional specialization in glycolytic and oxidative muscle fibers: tailoring the organelle for optimal function. American Journal of Physiology - Cell Physiology, 2012, 302, C629-C641.	2.1	170
42	Severe atrophy of slow myofibers in aging muscle is concealed by myosin heavy chain co-expression. Experimental Gerontology, 2012, 47, 913-918.	1.2	31
43	Last Word on Viewpoint: Muscle atrophy is not always sarcopenia. Journal of Applied Physiology, 2012, 113, 685-685.	1.2	3
44	Denervation Causes Fiber Atrophy and Myosin Heavy Chain Co-Expression in Senescent Skeletal Muscle. PLoS ONE, 2012, 7, e29082.	1.1	194
45	Mitochondrial Function in Permeabilized Cardiomyocytes Is Largely Preserved in the Senescent Rat Myocardium. PLoS ONE, 2012, 7, e43003.	1.1	24
46	Targeted protein glycosylation (Oâ€GlcNAc) of mitochondrial proteins in rats selected for low running capacity. FASEB Journal, 2012, 26, 565.11.	0.2	0
47	Mitochondrial Functional Specialization in Glycolytic and Oxidative Muscle Fibers: Tailoring the Organelle for Optimal Function. FASEB Journal, 2012, 26, 887.19.	0.2	0
48	Alterations in Mitochondria and Their Impact in Aging Skeletal Muscle. , 2011, , 135-158.		2
49	Alterations in intrinsic mitochondrial function with aging are fiber typeâ€specific and do not explain differential atrophy between muscles. Aging Cell, 2011, 10, 1047-1055.	3.0	120
50	Mitochondria: isolation, structure and function. Journal of Physiology, 2011, 589, 4413-4421.	1.3	193
51	Accumulation of severely atrophic myofibers marks the acceleration of sarcopenia in slow and fast twitch muscles. Experimental Gerontology, 2011, 46, 660-9.	1.2	43
52	Cardiac calcium pump inactivation and nitrosylation in senescent rat myocardium are not attenuated by long-term treadmill training. Experimental Gerontology, 2011, 46, 803-810.	1.2	15
53	Adaptations in Capillarization and Citrate Synthase Activity in Response to Endurance Training in Older and Young Men. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2011, 66A, 957-964.	1.7	41
54	Lower oxidative DNA damage despite greater ROS production in muscles from rats selectively bred for high running capacity. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 300, R544-R553.	0.9	60

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55	Mitochondrial Structure and Function Are Disrupted by Standard Isolation Methods. PLoS ONE, 2011, 6, e18317.	1.1	247
56	Slow twitch soleus muscle is not protected from sarcopenia in senescent rats. Experimental Gerontology, 2010, 45, 662-670.	1.2	35
57	Initiating exercise training in late middle age minimally protects muscle contractile function and increases myocyte oxidative damage in senescent rats. Experimental Gerontology, 2010, 45, 856-867.	1.2	21
58	Mitochondrial functional impairment with aging is exaggerated in isolated mitochondria compared to permeabilized myofibers. Aging Cell, 2010, 9, 1032-1046.	3.0	186
59	Mitochondrial protein import in aging muscle: can Tom still do it? Focus on â€œBiogenesis of the mitochondrial Tom40 channel in skeletal muscle from aged animals and its adaptability to chronic contractile activityâ€. American Journal of Physiology - Cell Physiology, 2010, 298, C1298-C1300.	2.1	2
60	Initiating treadmill training in late middle age offers modest adaptations in Ca²⁺handling but enhances oxidative damage in senescent rat skeletal muscle. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 298, R1269-R1278.	0.9	27
61	The O2 cost of the tension-time integral in isolated single myocytes during fatigue. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 298, R983-R988.	0.9	26
62	Denervation Contributes To Fiber Atrophy And Myosin Heavy Chain Co-expression In Senescent Skeletal Muscle. Medicine and Science in Sports and Exercise, 2010, 42, 25.	0.2	1
63	Why Eating Less Keeps Mitochondria Working in Aged Skeletal Muscle. Exercise and Sport Sciences Reviews, 2009, 37, 23-28.	1.6	21
64	Anatomic capillarization is elevated in the medial gastrocnemius muscle of mighty mini mice. Journal of Applied Physiology, 2009, 106, 1660-1667.	1.2	25
65	Exercise training from late middle age until senescence does not attenuate the declines in skeletal muscle aerobic function. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 297, R744-R755.	0.9	45
66	Exercise training in late middleâ€aged male Fischer 344 Ã— Brown Norway F1â€hybrid rats improves skeletal muscle aerobic function. Experimental Physiology, 2008, 93, 863-871.	0.9	26
67	Determinants of<i>V</i>O_{2 max}decline with aging: an integrated perspective. Applied Physiology, Nutrition and Metabolism, 2008, 33, 130-140.	0.9	117
68	Caloric restriction optimizes the proteasome pathway with aging in rat plantaris muscle: implications for sarcopenia. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2008, 295, R1231-R1237.	0.9	69
69	Effects of Aging and Caloric Restriction on Bone Structure and Mechanical Properties. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2008, 63, 1131-1136.	1.7	24
70	Prolonged Exercise Training does not Preserve Mitochondrial Enzyme Activity in Senescent Rats. FASEB Journal, 2008, 22, 1163.8.	0.2	0
71	Long term exercise training exacerbates sarcopenia and only modestly attenuates apoptosis. FASEB Journal, 2008, 22, 1163.13.	0.2	0
72	Caloric restriction attenuates apoptosis in larger type II fibers with aging. FASEB Journal, 2008, 22, 1163.12.	0.2	0

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73	Caloric restriction attenuates developmental myosin heavy chain expression and myostatin signaling in aged muscles. FASEB Journal, 2008, 22, 959.20.	0.2	0
74	Differential sensitivities of cerebral and brachial blood flow to hypercapnia in humans. Journal of Applied Physiology, 2007, 102, 87-93.	1.2	34
75	Nitric oxide synthase inhibition reduces O2cost of force development and spares high-energy phosphates following contractions in pump-perfused rat hindlimb muscles. Experimental Physiology, 2006, 91, 581-589.	0.9	8
76	Elevated caspase and AIF gene expression correlate with progression of sarcopenia during aging in male F344BN rats. Experimental Gerontology, 2006, 41, 1149-1156.	1.2	36
77	No Decline in Skeletal Muscle Oxidative Capacity With Aging in Long-Term Calorically Restricted Rats: Effects Are Independent of Mitochondrial DNA Integrity. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2006, 61, 675-684.	1.7	77
78	Caloric Restriction Protects Mitochondrial Function with Aging in Skeletal and Cardiac Muscles. Rejuvenation Research, 2006, 9, 219-222.	0.9	88
79	Dividing to Keep Muscle Together: The Role of Satellite Cells in Aging Skeletal Muscle. Science of Aging Knowledge Environment: SAGE KE, 2006, 2006, pe3-pe3.	0.9	8
80	Fiber type differences in O ₂ cost of force development during fatigue in isolated single fibers. FASEB Journal, 2006, 20, .	0.2	0
81	Caloric restriction prevents the ageâ€related decline in cardiac complex IV activity with aging in male F344BN rats. FASEB Journal, 2006, 20, A384.	0.2	0
82	Nitric oxide synthase inhibition reduces the O2cost of force development in rat hindlimb muscles pump perfused at matched convective O2delivery. Experimental Physiology, 2005, 90, 889-900.	0.9	6
83	Longâ€term caloric restriction abrogates the ageâ€related decline in skeletal muscle aerobic function. FASEB Journal, 2005, 19, 1320-1322.	0.2	68
84	The Versatility of the Pump-Perfused Rat Hindlimb Preparation: Examples Relating to Skeletal Muscle Function and Energy Metabolism. Applied Physiology, Nutrition, and Metabolism, 2005, 30, 576-590.	1.7	3
85	Skeletal Muscle Aging in F344BN F1-Hybrid Rats: I. Mitochondrial Dysfunction Contributes to the Age-Associated Reduction in VO2max. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2004, 59, 1099-1110.	1.7	85
86	Fiber Atrophy and Hypertrophy in Skeletal Muscles of Late Middle-Aged Fischer 344 x Brown Norway F1-Hybrid Rats. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2004, 59, B108-B117.	1.7	45
87	Skeletal Muscle Aging in F344BN F1-Hybrid Rats: II. Improved Contractile Economy in Senescence Helps Compensate for Reduced ATP-Generating Capacity. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2004, 59, 1111-1119.	1.7	36
88	Anatomic capillarization is maintained in relative excess of fiber oxidative capacity in some skeletal muscles of late middle-aged rats. Journal of Applied Physiology, 2004, 96, 2257-2264.	1.2	42
89	No effect of trans sodium crocetinate on maximal O2 conductance or in moderate hypoxia. Respiratory Physiology and Neurobiology, 2003, 134, 239-246.	0.7	5
90	VÌ‡o2 max is unaffected by altering the temporal pattern of stimulation frequency in rat hindlimb in situ. Journal of Applied Physiology, 2003, 95, 705-711.	1.2	15

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91	Aerobic power declines with aging in rat skeletal muscles perfused at matched convective O₂ delivery. Journal of Applied Physiology, 2003, 94, 744-751.	1.2	58
92	Selected Contribution: Bone adaptation with aging and long-term caloric restriction in Fischer 344 Ã— Brown-Norway F1-hybrid rats. Journal of Applied Physiology, 2003, 95, 1739-1745.	1.2	33
93	Sarcopenia--A Critical Perspective. Science of Aging Knowledge Environment: SAGE KE, 2003, 2003, 31pe-31.	0.9	45
94	Muscle Structural Capacity for Oxygen Flux from Capillary to Fiber Mitochondria. Exercise and Sport Sciences Reviews, 2002, 30, 80-84.	1.6	36
95	The Role of O₂ Supply in Muscle Fatigue. Applied Physiology, Nutrition, and Metabolism, 2002, 27, 56-69.	1.7	52
96	Oxidative capacity interacts with oxygen delivery to determine maximal O2uptake in rat skeletal musclesin situ. Journal of Physiology, 2002, 541, 1003-1012.	1.3	31
97	Estimating the size of the capillary-to-fiber interface in skeletal muscle: a comparison of methods. Journal of Applied Physiology, 2001, 91, 2150-2156.	1.2	52
98	Skeletal muscle: master or slave of the cardiovascular system?. Medicine and Science in Sports and Exercise, 2000, 32, 89.	0.2	30
99	Structural basis of muscle O2 diffusing capacity: evidence from muscle function in situ. Journal of Applied Physiology, 2000, 88, 560-566.	1.2	84
100	Skeletal muscle: microcirculatory adaptation to metabolic demand. Medicine and Science in Sports and Exercise, 2000, 32, 117.	0.2	49
101	Dissociation of peak vascular conductance andVË™<scp>o</scp> _{2 max} among highly trained athletes. Journal of Applied Physiology, 1999, 87, 1368-1372.	1.2	14
102	Rapid force recovery in contracting skeletal muscle after brief ischemia is dependent on O₂ availability. Journal of Applied Physiology, 1999, 87, 2225-2229.	1.2	24
103	Oxygen uptake kinetics during exercise in chronic heart failure: influence of peripheral vascular reserve. Clinical Science, 1999, 97, 569.	1.8	8
104	Increased capillarity in leg muscle of finches living at altitude. Journal of Applied Physiology, 1998, 85, 1871-1876.	1.2	27
105	A New Measurement of Tissue Capillarity: The Capillary-to-Fibre Perimeter Exchange Index. Applied Physiology, Nutrition, and Metabolism, 1997, 22, 11-22.	1.7	72
106	Resistance and aerobic training in older men: effects onVË™<scp>o</scp> _{2 peak} and the capillary supply to skeletal muscle. Journal of Applied Physiology, 1997, 82, 1305-1310.	1.2	172