Mark Hargreaves

List of Publications by Year
in descending order

99 papers	8,993 citations	41258 49 h-index	42291 92 g-index
116 all docs	116 docs citations	116 times ranked	9677 citing authors

#	Article	IF	Citations
1	Exercise, GLUT4, and Skeletal Muscle Glucose Uptake. Physiological Reviews, 2013, 93, 993-1017.	13.1	900
2	Integrative Biology of Exercise. Cell, 2014, 159, 738-749.	13.5	753
3	Skeletal muscle energy metabolism during exercise. Nature Metabolism, 2020, 2, 817-828.	5.1	464
4	AMP-Activated Protein Kinase Regulates GLUT4 Transcription by Phosphorylating Histone Deacetylase 5. Diabetes, 2008, 57, 860-867.	0.3	359
5	Brief intense interval exercise activates AMPK and p38 MAPK signaling and increases the expression of PGC-1Î± in human skeletal muscle. Journal of Applied Physiology, 2009, 106, 929-934.	1.2	311
6	Effect of Exercise Intensity on Skeletal Muscle AMPK Signaling in Humans. Diabetes, 2003, 52, 2205-2212.	0.3	299
7	Exerciseâ€induced histone modifications in human skeletal muscle. Journal of Physiology, 2009, 587, 5951-5958.	1.3	248
8	Exercise training increases lipid metabolism gene expression in human skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2002, 283, E66-E72.	1.8	227
9	A short-term, high-fat diet up-regulates lipid metabolism and gene expression in human skeletal muscle. American Journal of Clinical Nutrition, 2003, 77, 313-318.	2.2	200
10	Exercise and Myocyte Enhancer Factor 2 Regulation in Human Skeletal Muscle. Diabetes, 2004, 53, 1208-1214.	0.3	169
11	Effect of fat adaptation and carbohydrate restoration on metabolism and performance during prolonged cycling. Journal of Applied Physiology, 2000, 89, 2413-2421.	1.2	153
12	Activating HSP72 in Rodent Skeletal Muscle Increases Mitochondrial Number and Oxidative Capacity and Decreases Insulin Resistance. Diabetes, 2014, 63, 1881-1894.	0.3	153
13	Decreased PDH activation and glycogenolysis during exercise following fat adaptation with carbohydrate restoration. American Journal of Physiology - Endocrinology and Metabolism, 2006, 290, E380-E388.	1.8	150
14	Exercise Increases Ca 2+ â€"Calmodulinâ€Dependent Protein Kinase II Activity in Human Skeletal Muscle. Journal of Physiology, 2003, 553, 303-309.	1.3	136
15	Exercise Increases Nuclear AMPK Â2 in Human Skeletal Muscle. Diabetes, 2003, 52, 926-928.	0.3	135
16	Pre-exercise carbohydrate and fat ingestion: effects on metabolism and performance. Journal of Sports Sciences, 2004, 22, 31-38.	1.0	134
17	Adrenaline increases skeletal muscle glycogenolysis, pyruvate dehydrogenase activation and carbohydrate oxidation during moderate exercise in humans. Journal of Physiology, 2001, 534, 269-278.	1.3	131
18	Daily training with high carbohydrate availability increases exogenous carbohydrate oxidation during endurance cycling. Journal of Applied Physiology, 2010, 109, 126-134.	1.2	130

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19	Muscle metabolites and performance during high-intensity, intermittent exercise. Journal of Applied Physiology, 1998, 84, 1687-1691.	1.2	125
20	Effects of exercise on GLUT-4 and glycogenin gene expression in human skeletal muscle. Journal of Applied Physiology, 2000, 88, 794-796.	1.2	124
21	More than a store: regulatory roles for glycogen in skeletal muscle adaptation to exercise. American Journal of Physiology - Endocrinology and Metabolism, 2012, 302, E1343-E1351.	1.8	116
22	Effect of heat stress on glucose kinetics during exercise. Journal of Applied Physiology, 1996, 81, 1594-1597.	1.2	107
23	Adaptations to short-term high-fat diet persist during exercise despite high carbohydrate availability. Medicine and Science in Sports and Exercise, 2002, 34, 83-91.	0.2	102
24	Exercise adaptations: molecular mechanisms and potential targets for therapeutic benefit. Nature Reviews Endocrinology, 2020, 16, 495-505.	4.3	101
25	Altering dietary nutrient intake that reduces glycogen content leads to phosphorylation of nuclear p38 MAP kinase in human skeletal muscle: association with ILâ€6 gene transcription during contraction. FASEB Journal, 2004, 18, 1785-1787.	0.2	100
26	EXERCISE AND SKELETAL MUSCLE GLUCOSE TRANSPORTER 4 EXPRESSION: MOLECULAR MECHANISMS. Clinical and Experimental Pharmacology and Physiology, 2006, 33, 395-399.	0.9	97
27	AMPK-mediated regulation of transcription in skeletal muscle. Clinical Science, 2010, 118, 507-518.	1.8	97
28	AMPK and transcriptional regulation. Frontiers in Bioscience - Landmark, 2008, 13, 3022.	3.0	95
29	Acute signalling responses to intense endurance training commenced with low or normal muscle glycogen. Experimental Physiology, 2010, 95, 351-358.	0.9	95
30	Histone modifications and exercise adaptations. Journal of Applied Physiology, 2011, 110, 258-263.	1.2	92
31	Acute exercise and GLUT4 expression in human skeletal muscle: influence of exercise intensity. Journal of Applied Physiology, 2006, 101, 934-937.	1.2	91
32	Effect of carbohydrate or carbohydrate plus medium-chain triglyceride ingestion on cycling time trial performance. Journal of Applied Physiology, 2000, 88, 113-119.	1.2	88
33	Creatine supplementation increases glycogen storage but not GLUT-4 expression in human skeletal muscle. Clinical Science, 2004, 106, 99-106.	1.8	86
34	Exercise increases MEF2â€•and GEF DNAâ€binding activities in human skeletal muscle. FASEB Journal, 2006, 20, 348-349.	0.2	84
35	Reduced glycogen availability is associated with increased AMPKÎ±2 activity, nuclear AMPKÎ±2 protein abundance, and GLUT4 mRNA expression in contracting human skeletal muscle. Applied Physiology, Nutrition and Metabolism, 2006, 31, 302-312.	0.9	83
36	Physiological limits to exercise performance in the heat. Journal of Science and Medicine in Sport, 2008, 11, 66-71.	0.6	83

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37	Comparative structural analyses of purified glycogen particles from rat liver, human skeletal muscle and commercial preparations. International Journal of Biological Macromolecules, 2009, 45, 478-482.	3.6	82
38	Effect of carbohydrate ingestion on exercise-induced alterations in metabolic gene expression. Journal of Applied Physiology, 2005, 99, 1359-1363.	1.2	79
39	Pyruvate dehydrogenase activation and kinase expression in human skeletal muscle during fasting. Journal of Applied Physiology, 2004, 96, 2082-2087.	1.2	79
40	Disruption of the Class IIa HDAC Corepressor Complex Increases Energy Expenditure and Lipid Oxidation. Cell Reports, 2016, 16, 2802-2810.	2.9	68
41	Exercise Metabolism: Fuels for the Fire. Cold Spring Harbor Perspectives in Medicine, 2018, 8, a029744.	2.9	67
42	Heat shock proteins and exercise adaptations. Our knowledge thus far and the road still ahead. Journal of Applied Physiology, 2016, 120, 683-691.	1.2	62
43	Signalling mechanisms in skeletal muscle: role in substrate selection and muscle adaptation. Essays in Biochemistry, 2006, 42, 1-12.	2.1	61
44	Skeletal Muscle Metabolism During Exercise In Humans. Clinical and Experimental Pharmacology and Physiology, 2000, 27, 225-228.	0.9	60
45	Epigenetics and Exercise. Trends in Endocrinology and Metabolism, 2019, 30, 636-645.	3.1	60
46	Effect of short-term training on GLUT-4 mRNA and protein expression in human skeletal muscle. Experimental Physiology, 2004, 89, 559-563.	0.9	59
47	Effect of prior exercise on glucose metabolism in trained men. American Journal of Physiology - Endocrinology and Metabolism, 2001, 281, E766-E771.	1.8	56
48	AMPK Î² subunits display isoform specific affinities for carbohydrates. FEBS Letters, 2010, 584, 3499-3503.	1.3	55
49	Effect of timing of carbohydrate ingestion on endurance exercise performance. Medicine and Science in Sports and Exercise, 1996, 28, 1300-1304.	0.2	55
50	Muscle glycogen and metabolic regulation. Proceedings of the Nutrition Society, 2004, 63, 217-220.	0.4	49
51	Effect of exercise on protein kinase C activity and localization in human skeletal muscle. Journal of Physiology, 2004, 561, 861-870.	1.3	48
52	Effects of dietary sodium on body and muscle potassium content during heat acclimation. European Journal of Applied Physiology and Occupational Physiology, 1985, 54, 391-397.	1.2	47
53	Exercise and GLUT4. Exercise and Sport Sciences Reviews, 2020, 48, 110-118.	1.6	45
54	Histone deacetylase 5 regulates glucose uptake and insulin action in muscle cells. Journal of Molecular Endocrinology, 2012, 49, 203-211.	1.1	44

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55	Insulin-stimulated insulin receptor substrate-2â€“associated phosphatidylinositol 3â€“kinase activity is enhanced in human skeletal muscle after exercise. Metabolism: Clinical and Experimental, 2006, 55, 1046-1052.	1.5	43
56	Histone modifications and skeletal muscle metabolic gene expression. Clinical and Experimental Pharmacology and Physiology, 2010, 37, 392-396.	0.9	42
57	Carbohydrate-Electrolyte Feedings and 1h Time Trial Cycling Performance. International Journal of Sport Nutrition and Exercise Metabolism, 2004, 14, 541-549.	1.0	41
58	Resolving fatigue mechanisms determining exercise performance: integrative physiology at its finest!. Journal of Applied Physiology, 2008, 104, 286-287.	1.2	41
59	Fasting activates the gene expression of UCP3 independent of genes necessary for lipid transport and oxidation in skeletal muscle. Biochemical and Biophysical Research Communications, 2002, 294, 301-308.	1.0	40
60	Effect of Exercise on the Skeletal Muscle Proteome in Patients with Type 2 Diabetes. Medicine and Science in Sports and Exercise, 2013, 45, 1069-1076.	0.2	40
61	Effect of muscle glycogen availability on maximal exercise performance. European Journal of Applied Physiology, 1997, 75, 188-192.	1.2	38
62	Effect of carbohydrate ingestion on ammonia metabolism during exercise in humans. Journal of Applied Physiology, 2000, 88, 1576-1580.	1.2	38
63	Exercise increases skeletal muscle GLUT4 gene expression in patients with type 2 diabetes. Diabetes, Obesity and Metabolism, 2012, 14, 768-771.	2.2	38
64	Glucose production during strenuous exercise in humans: role of epinephrine. American Journal of Physiology - Endocrinology and Metabolism, 1999, 276, E1130-E1135.	1.8	36
65	<i>N</i>â€Acetylcysteine infusion does not affect glucose disposal during prolonged moderateâ€intensity exercise in humans. Journal of Physiology, 2010, 588, 1623-1634.	1.3	36
66	Exercise training increases adipose tissue GLUT4 expression in patients with type 2 diabetes. Diabetes, Obesity and Metabolism, 2011, 13, 959-962.	2.2	36
67	Exercise Metabolism: Historical Perspective. Cell Metabolism, 2015, 22, 12-17.	7.2	36
68	Resistance Exercise and Insulin Regulate AS160 and Interaction With 14-3-3 in Human Skeletal Muscle. Diabetes, 2007, 56, 1608-1614.	0.3	33
69	Fatigue mechanisms determining exercise performance: integrative physiology is systems biology. Journal of Applied Physiology, 2008, 104, 1541-1542.	1.2	33
70	Carbohydrate ingestion does not alter skeletal muscle AMPK signaling during exercise in humans. American Journal of Physiology - Endocrinology and Metabolism, 2006, 291, E566-E573.	1.8	32
71	Effect of sex differences on human MEF2 regulation during endurance exercise. American Journal of Physiology - Endocrinology and Metabolism, 2008, 294, E408-E415.	1.8	31
72	Interactions between insulin and exercise. Biochemical Journal, 2021, 478, 3827-3846.	1.7	31

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73	Exercise, diet, and skeletal muscle gene expression. Medicine and Science in Sports and Exercise, 2002, 34, 1505-1508.	0.2	30
74	Effect of carbohydrate ingestion on glucose kinetics during exercise in the heat. Journal of Applied Physiology, 2001, 90, 601-605.	1.2	28
75	Effect of epinephrine on glucose disposal during exercise in humans: role of muscle glycogen. American Journal of Physiology - Endocrinology and Metabolism, 2002, 283, E578-E583.	1.8	28
76	Effect of Creatine Ingestion on Glucose Tolerance and Insulin Sensitivity in Men. Medicine and Science in Sports and Exercise, 2003, 35, 69-74.	0.2	27
77	Carbohydrate and lipid requirements of soccer. Journal of Sports Sciences, 1994, 12, S13-S16.	1.0	25
78	Increased insulin-stimulated Akt pSer473 and cytosolic SHP2 protein abundance in human skeletal muscle following acute exercise and short-term training. Journal of Applied Physiology, 2007, 102, 1624-1631.	1.2	24
79	â€˜Systems biologyâ€™ in human exercise physiology: is it something different from integrative physiology?. Journal of Physiology, 2011, 589, 1031-1036.	1.3	24
80	Exercise does not alter subcellular localization, but increases phosphorylation of insulin-signaling proteins in human skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2006, 290, E341-E346.	1.8	23
81	Reduced plasma free fatty acid availability during exercise: effect on gene expression. European Journal of Applied Physiology, 2007, 99, 485-493.	1.2	23
82	Exercise and Gene Expression. Progress in Molecular Biology and Translational Science, 2015, 135, 457-469.	0.9	22
83	Exercise-induced muscle glucose uptake in mice with graded, muscle-specific GLUT-4 deletion. Physiological Reports, 2013, 1, e00065.	0.7	19
84	Scriptaid enhances skeletal muscle insulin action and cardiac function in obese mice. Diabetes, Obesity and Metabolism, 2017, 19, 936-943.	2.2	18
85	Carbohydrate ingestion reduces skeletal muscle acetylcarnitine availability but has no effect on substrate phosphorylation at the onset of exercise in man. Journal of Physiology, 2002, 544, 949-956.	1.3	17
86	Effect of Temperature on Muscle Metabolism During Submaximal Exercise in Humans. , 1999, 84, 775.		17
87	Carbohydrate metabolism during exercise in females: Effect of reduced fat availability. Metabolism: Clinical and Experimental, 2001, 50, 481-487.	1.5	14
88	Title is missing!. Molecular and Cellular Biochemistry, 2003, 244, 151-157.	1.4	14
89	Understanding multi-organ pathology from insufficient exercise. Journal of Applied Physiology, 2011, 111, 1199-1200.	1.2	14
90	Regulation of glucose kinetics during intense exercise in humans: effects of Î±- and Î²-adrenergic blockade. Metabolism: Clinical and Experimental, 2003, 52, 1615-1620.	1.5	13

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91	Exercise and GLUT4 in human subcutaneous adipose tissue. Physiological Reports, 2018, 6, e13918.	0.7	11
92	Exercise serum increases GLUT4 in human adipocytes. Experimental Physiology, 2019, 104, 630-634.	0.9	9
93	Exercise and health: historical perspectives and new insights. Journal of Applied Physiology, 2021, 131, 575-588.	1.2	8
94	Acute plasma volume expansion: effect on metabolism during submaximal exercise. Journal of Applied Physiology, 1999, 87, 1202-1206.	1.2	6
95	Understanding the regulation of muscle plasticity. Journal of Applied Physiology, 2011, 110, 256-257.	1.2	3
96	No evidence of direct association between GLUT4 and glycogen in human skeletal muscle. Physiological Reports, 2018, 6, e13917.	0.7	3
97	Glucose phosphorylation is/is not a significant barrier to muscle glucose uptake by the working muscle. Journal of Applied Physiology, 2006, 101, 1809-1809.	1.2	1
98	Exercise and Insulin - Understanding the Molecular Interactions. Exercise and Sport Sciences Reviews, 2009, 37, 156.	1.6	0
99	The effects of exercise on skeletal muscle GLUT4 expression in patients with type 2 diabetes. FASEB Journal, 2010, 24, 989.5.	0.2	0