

# Peter JI Hespel

## List of Publications by Year in descending order

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106  
papers

5,214  
citations

81743

39  
h-index

91712

69  
g-index

107  
all docs

107  
docs citations

107  
times ranked

6139  
citing authors

#	ARTICLE	IF	CITATIONS
1	Deficiency or inhibition of oxygen sensor Phd1 induces hypoxia tolerance by reprogramming basal metabolism. <i>Nature Genetics</i> , 2008, 40, 170-180.	9.4	433
2	Oral creatine supplementation facilitates the rehabilitation of disuse atrophy and alters the expression of muscle myogenic factors in humans. <i>Journal of Physiology</i> , 2001, 536, 625-633.	1.3	257
3	ACTN3 (R577X) genotype is associated with fiber type distribution. <i>Physiological Genomics</i> , 2007, 32, 58-63.	1.0	257
4	Human Sarcopenia Reveals an Increase in SOCS-3 and Myostatin and a Reduced Efficiency of Akt Phosphorylation. <i>Rejuvenation Research</i> , 2008, 11, 163-175B.	0.9	231
5	Disruption of skeletal muscle mitochondrial network genes and miRNAs in amyotrophic lateral sclerosis. <i>Neurobiology of Disease</i> , 2013, 49, 107-117.	2.1	194
6	Beneficial metabolic adaptations due to endurance exercise training in the fasted state. <i>Journal of Applied Physiology</i> , 2011, 110, 236-245.	1.2	148
7	Aerodynamic study of different cyclist positions: CFD analysis and full-scale wind-tunnel tests. <i>Journal of Biomechanics</i> , 2010, 43, 1262-1268.	0.9	128
8	Human skeletal muscle atrophy in amyotrophic lateral sclerosis reveals a reduction in Akt and an increase in atrogin-1. <i>FASEB Journal</i> , 2006, 20, 583-585.	0.2	127
9	Dietary nitrate improves muscle but not cerebral oxygenation status during exercise in hypoxia. <i>Journal of Applied Physiology</i> , 2012, 113, 736-745.	1.2	125
10	CFD simulations of the aerodynamic drag of two drafting cyclists. <i>Computers and Fluids</i> , 2013, 71, 435-445.	1.3	115
11	Acute Rhodiola Rosea Intake Can Improve Endurance Exercise Performance. <i>International Journal of Sport Nutrition and Exercise Metabolism</i> , 2004, 14, 298-307.	1.0	113
12	Androgen Signaling in Myocytes Contributes to the Maintenance of Muscle Mass and Fiber Type Regulation But Not to Muscle Strength or Fatigue. <i>Endocrinology</i> , 2009, 150, 3558-3566.	1.4	111
13	Î²-Alanine Improves Sprint Performance in Endurance Cycling. <i>Medicine and Science in Sports and Exercise</i> , 2009, 41, 898-903.	0.2	103
14	A satellite cell-specific knockout of the androgen receptor reveals myostatin as a direct androgen target in skeletal muscle. <i>FASEB Journal</i> , 2014, 28, 2979-2994.	0.2	100
15	Skeletal muscle properties in a transgenic mouse model for amyotrophic lateral sclerosis: effects of creatine treatment. <i>Neurobiology of Disease</i> , 2003, 13, 264-272.	2.1	97
16	Creatine enhances differentiation of myogenic C <sub>2</sub> C <sub>12</sub> cells by activating both p38 and Akt/PKB pathways. <i>American Journal of Physiology - Cell Physiology</i> , 2007, 293, C1263-C1271.	2.1	89
17	Phosphocreatine resynthesis is not affected by creatine loading. <i>Medicine and Science in Sports and Exercise</i> , 1999, 31, 236-242.	0.2	88
18	Evaluation of stroke performance in tennis. <i>Medicine and Science in Sports and Exercise</i> , 1998, 30, 1281-1288.	0.2	86

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19	Effect of endurance training on blood pressure at rest, during exercise and during 24 hours in sedentary men. <i>American Journal of Cardiology</i> , 1989, 63, 945-949.	0.7	80
20	A New Method for Non-Invasive Estimation of Human Muscle Fiber Type Composition. <i>PLoS ONE</i> , 2011, 6, e21956.	1.1	80
21	Effects of creatine supplementation and exercise training on fitness in men 55-75 yr old. <i>Journal of Applied Physiology</i> , 2003, 95, 818-828.	1.2	79
22	Sprint Interval Training in Hypoxia Stimulates Glycolytic Enzyme Activity. <i>Medicine and Science in Sports and Exercise</i> , 2013, 45, 2166-2174.	0.2	78
23	Effects of high altitude and cold air exposure on airway inflammation in patients with asthma. <i>Thorax</i> , 2013, 68, 906-913.	2.7	78
24	Carbohydrate supplementation improves stroke performance in tennis. <i>Medicine and Science in Sports and Exercise</i> , 1998, 30, 1289-1295.	0.2	78
25	Training in the fasted state improves glucose tolerance during fat-rich diet. <i>Journal of Physiology</i> , 2010, 588, 4289-4302.	1.3	77
26	Protective role of $\beta$ -actinin-3 in the response to an acute eccentric exercise bout. <i>Journal of Applied Physiology</i> , 2010, 109, 564-573.	1.2	75
27	Computational fluid dynamics analysis of cyclist aerodynamics: Performance of different turbulence-modelling and boundary-layer modelling approaches. <i>Journal of Biomechanics</i> , 2010, 43, 2281-2287.	0.9	74
28	Ketone ester supplementation blunts overreaching symptoms during endurance training overload. <i>Journal of Physiology</i> , 2019, 597, 3009-3027.	1.3	74
29	Combined creatine and protein supplementation in conjunction with resistance training promotes muscle GLUT-4 content and glucose tolerance in humans. <i>Journal of Applied Physiology</i> , 2003, 94, 1910-1916.	1.2	73
30	Intake of a Ketone Ester Drink during Recovery from Exercise Promotes mTORC1 Signaling but Not Glycogen Resynthesis in Human Muscle. <i>Frontiers in Physiology</i> , 2017, 8, 310.	1.3	71
31	Important Role of Insulin and Flow in Stimulating Glucose Uptake in Contracting Skeletal Muscle. <i>Diabetes</i> , 1995, 44, 210-215.	0.3	57
32	Soleus muscles of SAMP8 mice provide an accelerated model of skeletal muscle senescence. <i>Experimental Gerontology</i> , 2005, 40, 562-572.	1.2	57
33	Biochemical artifacts in experiments involving repeated biopsies in the same muscle. <i>Physiological Reports</i> , 2014, 2, e00286.	0.7	55
34	Computational fluid dynamics analysis of drag and convective heat transfer of individual body segments for different cyclist positions. <i>Journal of Biomechanics</i> , 2011, 44, 1695-1701.	0.9	51
35	Endoplasmic Reticulum Stress in Skeletal Muscle. <i>Exercise and Sport Sciences Reviews</i> , 2012, 40, 43-49.	1.6	51
36	Acute environmental hypoxia induces LC3 lipidation in a genotype-dependent manner. <i>FASEB Journal</i> , 2014, 28, 1022-1034.	0.2	48

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37	Plasma guanidino compounds are altered by oral creatine supplementation in healthy humans. <i>Journal of Applied Physiology</i> , 2004, 97, 852-857.	1.2	45
38	Exogenous ketosis impacts neither performance nor muscle glycogen breakdown in prolonged endurance exercise. <i>Journal of Applied Physiology</i> , 2020, 128, 1643-1653.	1.2	43
39	Creatine Supplementation: Exploring the Role of the Creatine Kinase/Phosphocreatine System in Human Muscle. <i>Applied Physiology, Nutrition, and Metabolism</i> , 2001, 26, S79-S102.	1.7	40
40	Cafeteria diet-induced insulin resistance is not associated with decreased insulin signaling or AMPK activity and is alleviated by physical training in rats. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2010, 299, E215-E224.	1.8	40
41	Nutrition for the sprinter. <i>Journal of Sports Sciences</i> , 2007, 25, S5-S15.	1.0	39
42	Cyclist Drag in Team Pursuit: Influence of Cyclist Sequence, Stature, and Arm Spacing. <i>Journal of Biomechanical Engineering</i> , 2014, 136, 011005.	0.6	38
43	Bicarbonate Unlocks the Ergogenic Action of Ketone Monoester Intake in Endurance Exercise. <i>Medicine and Science in Sports and Exercise</i> , 2021, 53, 431-441.	0.2	35
44	Effects of Postabsorptive and Postprandial Exercise on Glucoregulation in Metabolic Syndrome. <i>Obesity</i> , 2007, 15, 704-711.	1.5	34
45	Role of adenosine in regulating glucose uptake during contractions and hypoxia in rat skeletal muscle. <i>Journal of Physiology</i> , 1999, 515, 255-263.	1.3	33
46	The unfolded protein response in human skeletal muscle is not involved in the onset of glucose tolerance impairment induced by a fat-rich diet. <i>European Journal of Applied Physiology</i> , 2011, 111, 1553-1558.	1.2	32
47	Effect of isokinetic cycling versus weight training on maximal power output and endurance performance in cycling. <i>European Journal of Applied Physiology</i> , 2010, 109, 699-708.	1.2	31
48	No effect of glycogen level on glycogen metabolism during high intensity exercise. <i>Medicine and Science in Sports and Exercise</i> , 1995, 27, 1278-1283.	0.2	29
49	Short-term creatine supplementation does not alter the hormonal response to resistance training. <i>Medicine and Science in Sports and Exercise</i> , 2001, 33, 449-453.	0.2	29
50	Increased p70s6k phosphorylation during intake of a protein-carbohydrate drink following resistance exercise in the fasted state. <i>European Journal of Applied Physiology</i> , 2010, 108, 791-800.	1.2	29
51	Additive insulinogenic action of <i>Opuntia ficus-indica</i> cladode and fruit skin extract and leucine after exercise in healthy males. <i>Journal of the International Society of Sports Nutrition</i> , 2013, 10, 45.	1.7	28
52	Nitrate Intake Promotes Shift in Muscle Fiber Type Composition during Sprint Interval Training in Hypoxia. <i>Frontiers in Physiology</i> , 2016, 7, 233.	1.3	28
53	Creatine supplementation in health and disease: What is the evidence for long-term efficacy?. <i>Molecular and Cellular Biochemistry</i> , 2003, 244, 49-55.	1.4	26
54	AMP kinase expression and activity in human skeletal muscle: effects of immobilization, retraining, and creatine supplementation. <i>Journal of Applied Physiology</i> , 2005, 98, 1228-1233.	1.2	24

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55	Exogenous Ketosis Impairs 30-min Time-Trial Performance Independent of Bicarbonate Supplementation. <i>Medicine and Science in Sports and Exercise</i> , 2021, 53, 1068-1078.	0.2	23
56	PASSCLAIM - Physical performance and fitness. <i>European Journal of Nutrition</i> , 2003, 42, 1-1.	1.8	22
57	Creatine Supplementation Augments Skeletal Muscle Carnosine Content in Senescence-Accelerated Mice (SAMP8). <i>Rejuvenation Research</i> , 2008, 11, 641-647.	0.9	21
58	Opuntia Ficus-Indica Ingestion Stimulates Peripheral Disposal of Oral Glucose Before and After Exercise in Healthy Men. <i>International Journal of Sport Nutrition and Exercise Metabolism</i> , 2012, 22, 284-291.	1.0	21
59	Simultaneous determination of nitrite and nitrate in human plasma by on-line capillary preconcentration with field-amplified sample stacking. <i>Electrophoresis</i> , 2012, 33, 402-405.	1.3	21
60	Enhanced muscular oxygen extraction in athletes exaggerates hypoxemia during exercise in hypoxia. <i>Journal of Applied Physiology</i> , 2016, 120, 351-361.	1.2	21
61	Progressive attenuation of the carotid baroreflex control of blood pressure and heart rate during exercise. <i>American Heart Journal</i> , 1987, 114, 765-772.	1.2	20
62	High-fat diet overrules the effects of training on fiber-specific intramyocellular lipid utilization during exercise. <i>Journal of Applied Physiology</i> , 2011, 111, 108-116.	1.2	20
63	Role of Adenosine in Regulation of Carbohydrate Metabolism in Contracting Muscle. <i>Advances in Experimental Medicine and Biology</i> , 1998, 441, 97-106.	0.8	19
64	Creatine supplementation increases soleus muscle creatine content and lowers the insulinogenic index in an animal model of inherited type 2 diabetes. <i>International Journal of Molecular Medicine</i> , 2006, 17, 1077-84.	1.8	19
65	Ergogenic effects of creatine in sports and rehabilitation. <i>Sub-Cellular Biochemistry</i> , 2007, 46, 245-59.	1.0	19
66	Plasma carnosine, but not muscle carnosine, attenuates high-fat diet-induced metabolic stress. <i>Applied Physiology, Nutrition and Metabolism</i> , 2015, 40, 868-876.	0.9	18
67	Physical activity counteracts tumor cell growth in colon carcinoma C26-injected muscles: an interim report. <i>European Journal of Translational Myology</i> , 2016, 26, 5958.	0.8	18
68	Ergogenic Effects of Creatine in Sports and Rehabilitation. , 2007, , 246-259.		18
69	The creatine content of Creatine Serum and the change in the plasma concentration with ingestion of a single dose. <i>Journal of Sports Sciences</i> , 2004, 22, 851-857.	1.0	17
70	Twin Resemblance in Muscle HIF-1 Responses to Hypoxia and Exercise. <i>Frontiers in Physiology</i> , 2016, 7, 676.	1.3	15
71	Physiological Adaptations to Hypoxic vs. Normoxic Training during Intermittent Living High. <i>Frontiers in Physiology</i> , 2017, 8, 347.	1.3	15
72	Influence of $\beta_1$ - Versus $\beta_2$ -Adrenoceptor Blockade on Left Ventricular Function in Humans. <i>Journal of Cardiovascular Pharmacology</i> , 1986, 8, 1086-1091.	0.8	14

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73	Effect of muscle creatine content manipulation on contractile properties in mouse muscles. <i>Muscle and Nerve</i> , 2004, 29, 428-435.	1.0	14
74	Effects of opioid antagonism on the haemodynamic and hormonal responses to exercise. <i>Clinical Science</i> , 1988, 75, 293-300.	1.8	13
75	Creatine supplementation increases soleus muscle creatine content and lowers the insulinogenic index in an animal model of inherited type 2 diabetes. <i>International Journal of Molecular Medicine</i> , 2006, 17, 1077.	1.8	13
76	Exercise-induced, but not creatine-induced, decrease in intramyocellular lipid content improves insulin sensitivity in rats. <i>Journal of Nutritional Biochemistry</i> , 2011, 22, 1178-1185.	1.9	13
77	A noninterfering system to measure in-cage spontaneous physical activity in mice. <i>Journal of Applied Physiology</i> , 2018, 125, 263-270.	1.2	13
78	Exogenous ketosis increases blood and muscle oxygenation but not performance during exercise in hypoxia. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2021, 321, R844-R857.	0.9	13
79	No effects of lifelong creatine supplementation on sarcopenia in senescence-accelerated mice (SAMP8). <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2005, 289, E272-E277.	1.8	12
80	High Twin Resemblance for Sensitivity to Hypoxia. <i>Medicine and Science in Sports and Exercise</i> , 2015, 47, 74-81.	0.2	12
81	Sodium bicarbonate improves sprint performance in endurance cycling. <i>Journal of Science and Medicine in Sport</i> , 2021, 24, 301-306.	0.6	12
82	Changes in erythrocyte sodium and plasma lipids associated with physical training. <i>Journal of Hypertension</i> , 1988, 6, 159-166.	0.3	10
83	Electrolysis stimulates creatine transport and transporter cell surface expression in incubated mouse skeletal muscle: potential role of ROS. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2006, 291, E1250-E1257.	1.8	10
84	Training Effects on Muscle Glucose Transport during Exercise. <i>Advances in Experimental Medicine and Biology</i> , 1998, 441, 107-116.	0.8	10
85	Effect of a novel pedal design on maximal power output and mechanical efficiency in well-trained cyclists. <i>Journal of Sports Sciences</i> , 2008, 26, 1015-1023.	1.0	8
86	Ketone bodies: beyond their role as a potential energy substrate in exercise. <i>Journal of Physiology</i> , 2020, 598, 4749-4750.	1.3	8
87	Oral creatine supplementation in humans does not elevate urinary excretion of the carcinogen N-nitrososarcosine. <i>Nutrition</i> , 2006, 22, 332-333.	1.1	7
88	Acute systemic insulin intolerance does not alter the response of the Akt/GSK-3 pathway to environmental hypoxia in human skeletal muscle. <i>European Journal of Applied Physiology</i> , 2015, 115, 1219-1231.	1.2	7
89	Effect of Calcium Antagonism on Intracellular Concentrations and Transmembrane Fluxes of Cations in Erythrocytes of Men at Rest and During Exercise. <i>Journal of Hypertension</i> , 1986, 4, 767-772.	0.3	6
90	A Genetic Predisposition Score Associates with Reduced Aerobic Capacity in Response to Acute Normobaric Hypoxia in Lowlanders. <i>High Altitude Medicine and Biology</i> , 2015, 16, 34-42.	0.5	6

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91	Effect of Stacked Sodium Bicarbonate Loading on Repeated All-out Exercise. <i>International Journal of Sports Medicine</i> , 2019, 40, 711-716.	0.8	6
92	High-intensity interval training in hypoxia does not affect muscle HIF responses to acute hypoxia in humans. <i>European Journal of Applied Physiology</i> , 2018, 118, 847-862.	1.2	5
93	Voluntary exercise does not improve muscular properties or functional capacity during C26-induced cancer cachexia in mice. <i>Journal of Muscle Research and Cell Motility</i> , 2021, 42, 169-181.	0.9	5
94	Creatine supplementation in health and disease: What is the evidence for long-term efficacy?. , 2003, , 49-55.		5
95	Creatine supplementation in health and disease: what is the evidence for long-term efficacy?. <i>Molecular and Cellular Biochemistry</i> , 2003, 244, 49-55.	1.4	5
96	Erythrocyte and leucocyte sodium and potassium transport systems during long-term diuretic administration in men. <i>Journal of Hypertension</i> , 1988, 6, 639-645.	0.3	4
97	Hyperglycemic diet and training alter insulin sensitivity, intramyocellular lipid content but not UCP3 protein expression in rat skeletal muscles. <i>International Journal of Molecular Medicine</i> , 2010, 25, 905-13.	1.8	4
98	Carotid baroreflex sensitivity at rest and during exercise is not influenced by opioid receptor antagonism. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1989, 59, 131-137.	1.2	3
99	Surprises in cycling aerodynamics. <i>Europhysics News</i> , 2013, 44, 20-23.	0.1	2
100	Reply from Chiel Poff <sup>Å</sup> , Monique Ramaekers, Ruud Van Thienen and Peter Hespel. <i>Journal of Physiology</i> , 2019, 597, 4409-4410.	1.3	2
101	Reply from Chiel Poff <sup>Å</sup> , Monique Ramaekers and Peter Hespel. <i>Journal of Physiology</i> , 2019, 597, 5309-5310.	1.3	2
102	Reply from Chiel Poff <sup>Å</sup> , Monique Ramaekers, Ruud Van Thienen and Peter Hespel. <i>Journal of Physiology</i> , 2019, 597, 4679-4680.	1.3	2
103	Effects Of Training In The Fasted State In Conjunction With Fat-rich diet On Muscle Metabolism. <i>Medicine and Science in Sports and Exercise</i> , 2010, 42, 42.	0.2	0
104	Impact of Oral Creatine Supplementation on Muscle Performance During Training and Rehabilitation. <i>Medical Science Symposia Series</i> , 2000, , 65-73.	0.0	0
105	Efficiency of Lifestyle Physical Activity Interventions to Increase Cardiorespiratory and Muscular Fitness in Older Adults. <i>Medicine and Science in Sports and Exercise</i> , 2006, 38, S369-s370.	0.2	0
106	Predicting the Effects of Acute Normobaric Hypoxia on Exercise Performance from Physiological Measurements at Rest.. <i>Medicine and Science in Sports and Exercise</i> , 2014, 46, 426.	0.2	0