Keith Baar

List of Publications by Year
in descending order

140 papers	10,369 citations	36303 51 h-index	33894 99 g-index
144 all docs	144 docs citations	144 times ranked	12619 citing authors

#	Article	IF	Citations
1	Sex differences in systemic bone and muscle loss following femur fracture in mice. Journal of Orthopaedic Research, 2022, 40, 878-890.	2.3	6
2	Cannabidiol Does Not Impact Acute Anabolic or Inflammatory Signaling in Skeletal Muscle <i>In Vitro</i>. Cannabis and Cannabinoid Research, 2022, 7, 628-636.	2.9	6
3	Collagen and Vitamin C Supplementation Increases Lower Limb Rate of Force Development. International Journal of Sport Nutrition and Exercise Metabolism, 2022, 32, 65-73.	2.1	8
4	Scleraxis and collagen I expression increase following pilot isometric loading experiments in a rodent model of patellar tendinopathy. Matrix Biology, 2022, 109, 34-48.	3.6	4
5	Myofibrillar protein synthesis rates are increased in chronically exercised skeletal muscle despite decreased anabolic signaling. Scientific Reports, 2022, 12, 7553.	3.3	9
6	Considerations for the development of costâ€effective cell culture media for cultivated meat production. Comprehensive Reviews in Food Science and Food Safety, 2021, 20, 686-709.	11.7	66
7	A ketogenic diet impacts markers of mitochondrial mass in a tissue specific manner in aged mice. Aging, 2021, 13, 7914-7930.	3.1	12
8	Cannabidiol Does Not Impair Anabolic Signaling Following Eccentric Contractions in Rats. International Journal of Sport Nutrition and Exercise Metabolism, 2021, 31, 93-100.	2.1	7
9	The ketogenic diet preserves skeletal muscle with aging in mice. Aging Cell, 2021, 20, e13322.	6.7	42
10	Maintenance of muscle mass in adult male mice is independent of testosterone. PLoS ONE, 2021, 16, e0240278.	2.5	12
11	A mutation in desmin makes skeletal muscle less vulnerable to acute muscle damage after eccentric loading in rats. FASEB Journal, 2021, 35, e21860.	0.5	8
12	Egr1 And Col1Î±1 Gene Expression Increase With Tensile, But Not Compressive, Loading In Engineered Tendon. Medicine and Science in Sports and Exercise, 2021, 53, 120-120.	0.4	0
13	Muscle-tendon cross talk during muscle wasting. American Journal of Physiology - Cell Physiology, 2021, 321, C559-C568.	4.6	2
14	Optimization of muscle cell culture media using nonlinear design of experiments. Biotechnology Journal, 2021, 16, e2100228.	3.5	15
15	Adding exogenous biglycan or decorin improves tendon formation for equine peritenon and tendon proper cells in vitro. BMC Musculoskeletal Disorders, 2020, 21, 627.	1.9	11
16	Generation of desminopathy in rats using CRISPRâ€Cas9. Journal of Cachexia, Sarcopenia and Muscle, 2020, 11, 1364-1376.	7.3	14
17	Effect of a 12â€week endurance training program on force transfer and membrane integrity proteins in lean, obese, and type 2 diabetic subjects. Physiological Reports, 2020, 8, e14429.	1.7	3
18	Case report of an exercise training and nutritional intervention plan in a patient with A350P mutation in DES gene. Clinical Case Reports (discontinued), 2020, 8, 283-288.	0.5	1

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19	Effects Of Vitamin C Enriched Hydrolyzed Collagen On Explosive Performance. Medicine and Science in Sports and Exercise, 2020, 52, 171-171.	0.4	0
20	Effects Of Methyl Sulfonyl Methane On Knee Laxity In Females Throughout The Menstrual Cycle.. Medicine and Science in Sports and Exercise, 2020, 52, 92-92.	0.4	0
21	Nutrition for the Prevention and Treatment of Injuries in Track and Field Athletes. International Journal of Sport Nutrition and Exercise Metabolism, 2019, 29, 189-197.	2.1	66
22	Effects of Different Vitamin Câ€"Enriched Collagen Derivatives on Collagen Synthesis. International Journal of Sport Nutrition and Exercise Metabolism, 2019, 29, 526-531.	2.1	22
23	Rehabilitation and nutrition protocols for optimising return to play from traditional ACL reconstruction in elite rugby union players: A case study. Journal of Sports Sciences, 2019, 37, 1794-1803.	2.0	10
24	Commentaries on Viewpoint: Rejuvenation of the term sarcopenia. Journal of Applied Physiology, 2019, 126, 257-262.	2.5	12
25	Proposed Mechanisms Underlying the Interference Effect. , 2019, , 89-97.		0
26	Nutrition for Strength Adaptations. , 2019, , 345-357.		0
27	Stress Relaxation and Targeted Nutrition to Treat Patellar Tendinopathy. International Journal of Sport Nutrition and Exercise Metabolism, 2019, 29, 453-457.	2.1	26
28	Testosterone Is Not Required for The Maintenance of Muscle Mass in Fully Matured and Elderly Male Mice. FASEB Journal, 2019, 33, 868.8.	0.5	0
29	Localized BMP-4 release improves the enthesis of engineered bone-to-bone ligaments. Translational Sports Medicine, 2018, 1, 60-72.	1.1	7
30	Why yet another sports medicine journal?. Translational Sports Medicine, 2018, 1, 3-4.	1.1	0
31	Alterations in the muscle force transfer apparatus in aged rats during unloading and reloading: impact of microRNAâ€31. Journal of Physiology, 2018, 596, 2883-2900.	2.9	21
32	Adaptations to Endurance and Strength Training. Cold Spring Harbor Perspectives in Medicine, 2018, 8, a029769.	6.2	178
33	Evaluation and Optimization of a Three-Dimensional Construct Model for Equine Superficial Digital Flexor Tendon. Journal of Equine Veterinary Science, 2018, 71, 90-97.	0.9	3
34	Characterisation of L-Type Amino Acid Transporter 1 (LAT1) Expression in Human Skeletal Muscle by Immunofluorescent Microscopy. Nutrients, 2018, 10, 23.	4.1	36
35	Normal Ribosomal Biogenesis but Shortened Protein Synthetic Response to Acute Eccentric Resistance Exercise in Old Skeletal Muscle. Frontiers in Physiology, 2018, 9, 1915.	2.8	24
36	Effect of Estrogen on Musculoskeletal Performance and Injury Risk. Frontiers in Physiology, 2018, 9, 1834.	2.8	149

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37	DNA-PK Promotes the Mitochondrial, Metabolic, and Physical Decline that Occurs During Aging. Cell Metabolism, 2017, 25, 1135-1146.e7.	16.2	92
38	Minimizing Injury and Maximizing Return to Play: Lessons from Engineered Ligaments. Sports Medicine, 2017, 47, 5-11.	6.5	35
39	Muscle-specific and age-related changes in protein synthesis and protein degradation in response to hindlimb unloading in rats. Journal of Applied Physiology, 2017, 122, 1336-1350.	2.5	85
40	A Ketogenic Diet Extends Longevity and Healthspan in Adult Mice. Cell Metabolism, 2017, 26, 539-546.e5.	16.2	348
41	Treatment of Ligament Constructs with Exercise-conditioned Serum: A Translational Tissue Engineering Model. Journal of Visualized Experiments, 2017, , .	0.3	1
42	Selected In-Season Nutritional Strategies to Enhance Recovery for Team Sport Athletes: A Practical Overview. Sports Medicine, 2017, 47, 2201-2218.	6.5	87
43	Vitamin Câ€“enriched gelatin supplementation before intermittent activity augments collagen synthesis. American Journal of Clinical Nutrition, 2017, 105, 136-143.	4.7	124
44	Branched-Chain Amino Acid Ingestion Stimulates Muscle Myofibrillar Protein Synthesis following Resistance Exercise in Humans. Frontiers in Physiology, 2017, 8, 390.	2.8	97
45	Age-related Differences in Dystrophin: Impact on Force Transfer Proteins, Membrane Integrity, and Neuromuscular Junction Stability. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2016, 72, glw109.	3.6	38
46	Acute resistance exercise activates rapamycinâ€sensitive and â€insensitive mechanisms that control translational activity and capacity in skeletal muscle. Journal of Physiology, 2016, 594, 453-468.	2.9	129
47	Disruption of the Class IIa HDAC Corepressor Complex Increases Energy Expenditure and Lipid Oxidation. Cell Reports, 2016, 16, 2802-2810.	6.4	68
48	Factors That Affect Tissue-Engineered Skeletal Muscle Function and Physiology. Cells Tissues Organs, 2016, 202, 159-168.	2.3	24
49	Contribution of mechanical unloading to trabecular bone loss following nonâ€invasive knee injury in mice. Journal of Orthopaedic Research, 2016, 34, 1680-1687.	2.3	30
50	Age-related deficits in skeletal muscle recovery following disuse are associated with neuromuscular junction instability and ER stress, not impaired protein synthesis. Aging, 2016, 8, 127-146.	3.1	152
51	Role of contraction duration in inducing fastâ€toâ€slow contractile and metabolic protein and functional changes in engineered muscle. Journal of Cellular Physiology, 2015, 230, 2489-2497.	4.1	27
52	The exerciseâ€induced biochemical milieu enhances collagen content and tensile strength of engineered ligaments. Journal of Physiology, 2015, 593, 4665-4675.	2.9	30
53	Rapamycin does not prevent increases in myofibrillar or mitochondrial protein synthesis following endurance exercise. Journal of Physiology, 2015, 593, 4275-4284.	2.9	54
54	Utilizing small nutrient compounds as enhancers of exercise-induced mitochondrial biogenesis. Frontiers in Physiology, 2015, 6, 296.	2.8	25

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55	Neuromuscular Junction Formation in Tissue-Engineered Skeletal Muscle Augments Contractile Function and Improves Cytoskeletal Organization. Tissue Engineering - Part A, 2015, 21, 2595-2604.	3.1	63
56	Estrogen inhibits lysyl oxidase and decreases mechanical function in engineered ligaments. Journal of Applied Physiology, 2015, 118, 1250-1257.	2.5	35
57	Effects of aging, exercise, and disease on force transfer in skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2015, 309, E1-E10.	3.5	61
58	Pharmacology of manipulating lean body mass. Clinical and Experimental Pharmacology and Physiology, 2015, 42, 1-13.	1.9	12
59	Streptomycin Decreases the Functional Shift to a Slow Phenotype Induced by Electrical Stimulation in Engineered Muscle. Tissue Engineering - Part A, 2015, 21, 1003-1012.	3.1	14
60	Contractile and Metabolic Properties of Engineered Skeletal Muscle Derived From Slow and Fast Phenotype Mouse Muscle. Journal of Cellular Physiology, 2015, 230, 1750-1757.	4.1	29
61	The Molecular Basis for Load-Induced Skeletal Muscle Hypertrophy. Calcified Tissue International, 2015, 96, 196-210.	3.1	79
62	Glucose Concentration and Streptomycin Alter In Vitro Muscle Function and Metabolism. Journal of Cellular Physiology, 2015, 230, 1226-1234.	4.1	21
63	Nutritional strategies to support concurrent training. European Journal of Sport Science, 2015, 15, 41-52.	2.7	45
64	Delayed Activation of Muscle Protein Synthesis following Resistance Exercise in Mice is mTORC1â€Dependent. FASEB Journal, 2015, 29, 825.13.	0.5	0
65	Molecular brakes regulating mTORC1 activation in skeletal muscle following synergist ablation. American Journal of Physiology - Endocrinology and Metabolism, 2014, 307, E365-E373.	3.5	38
66	The Effect of Serum Origin on Tissue Engineered Skeletal Muscle Function. Journal of Cellular Biochemistry, 2014, 115, 2198-2207.	2.6	33
67	Compensatory regulation of HDAC5 in muscle maintains metabolic adaptive responses and metabolism in response to energetic stress. FASEB Journal, 2014, 28, 3384-3395.	0.5	47
68	Novel sorafenib-based structural analogues. Anti-Cancer Drugs, 2014, 25, 433-446.	1.4	3
69	Maintenance of muscle mass and loadâ€induced growth in Muscle <scp>RING</scp> Finger 1 null mice with age. Aging Cell, 2014, 13, 92-101.	6.7	92
70	Using Molecular Biology to Maximize Concurrent Training. Sports Medicine, 2014, 44, 117-125.	6.5	82
71	mTOR and the health benefits of exercise. Seminars in Cell and Developmental Biology, 2014, 36, 130-139.	5.0	74
72	Nutrition and the Adaptation to Endurance Training. Sports Medicine, 2014, 44, 5-12.	6.5	44

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73	Endurance training in mice increases the unfolded protein response induced by a high-fat diet. Journal of Physiology and Biochemistry, 2013, 69, 215-225.	3.0	36
74	Factors affecting the structure and maturation of human tissue engineered skeletal muscle. Biomaterials, 2013, 34, 5759-5765.	11.4	69
75	Inhibition of Myostatin Signaling through Notch Activation following Acute Resistance Exercise. PLoS ONE, 2013, 8, e68743.	2.5	53
76	Glycogen Content Regulates Peroxisome Proliferator Activated Receptor-âˆ, (PPAR-âˆ,) Activity in Rat Skeletal Muscle. PLoS ONE, 2013, 8, e77200.	2.5	36
77	Optimizing an Intermittent Stretch Paradigm Using ERK1/2 Phosphorylation Results in Increased Collagen Synthesis in Engineered Ligaments. Tissue Engineering - Part A, 2012, 18, 277-284.	3.1	68
78	Resveratrol Ameliorates Aging-Related Metabolic Phenotypes by Inhibiting cAMP Phosphodiesterases. Cell, 2012, 148, 421-433.	28.9	1,162
79	Supplementation of a suboptimal protein dose with leucine or essential amino acids: effects on myofibrillar protein synthesis at rest and following resistance exercise in men. Journal of Physiology, 2012, 590, 2751-2765.	2.9	241
80	Is irisin a human exercise gene?. Nature, 2012, 488, E9-E10.	27.8	320
81	Fine-tuning metabolismâ€"how products of contraction regulate skeletal muscle adaptation. American Journal of Physiology - Endocrinology and Metabolism, 2012, 302, E1313-E1314.	3.5	3
82	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.	3.5	116
83	The effect of growth factors on both collagen synthesis and tensile strength of engineered human ligaments. Biomaterials, 2012, 33, 6355-6361.	11.4	46
84	Sirtuin 1 (SIRT1) Deacetylase Activity Is Not Required for Mitochondrial Biogenesis or Peroxisome Proliferator-activated Receptor-Î³ Coactivator-1Î± (PGC-1Î±) Deacetylation following Endurance Exercise. Journal of Biological Chemistry, 2011, 286, 30561-30570.	3.4	156
85	Regulation of contractility and metabolic signaling by the Î²2-adrenergic receptor in rat ventricular muscle. Life Sciences, 2011, 88, 892-897.	4.3	16
86	ER Stress Induces Anabolic Resistance in Muscle Cells through PKB-Induced Blockade of mTORC1. PLoS ONE, 2011, 6, e20993.	2.5	43
87	24h Stimulation Results In A Rapamycin-dependent Increase In Force Production In 3d Engineered Muscles. Medicine and Science in Sports and Exercise, 2011, 43, 53.	0.4	0
88	Signals mediating skeletal muscle remodeling by resistance exercise: PI3-kinase independent activation of mTORC1. Journal of Applied Physiology, 2011, 110, 561-568.	2.5	98
89	The influence of carbohydrateâ€"protein coâ€ingestion following endurance exercise on myofibrillar and mitochondrial protein synthesis. Journal of Physiology, 2011, 589, 4011-4025.	2.9	121
90	Absence of the Birtâ€"Hoggâ€"DubÃ© gene product is associated with increased hypoxia-inducible factor transcriptional activity and a loss of metabolic flexibility. Oncogene, 2011, 30, 1159-1173.	5.9	69

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91	Variability in the magnitude of response of metabolic enzymes reveals patterns of co-ordinated expression following endurance training in women. Experimental Physiology, 2011, 96, 699-707.	2.0	16
92	HIF1A P582S gene association with endurance training responses in young women. European Journal of Applied Physiology, 2011, 111, 2339-2347.	2.5	16
93	Beneficial Effects of Resistance Exercise on Glycemic Control Are Not Further Improved by Protein Ingestion. PLoS ONE, 2011, 6, e20613.	2.5	21
94	Understanding the regulation of muscle plasticity. Journal of Applied Physiology, 2011, 110, 256-257.	2.5	3
95	The PGC-1Î±-related coactivator promotes mitochondrial and myogenic adaptations in C2C12 myotubes. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 301, R864-R872.	1.8	35
96	Sirt1 enhances skeletal muscle insulin sensitivity in mice during caloric restriction. Journal of Clinical Investigation, 2011, 121, 4281-4288.	8.2	164
97	Glycogen depletion increases peroxisome proliferator activated receptorâ€Î´ (PPARâ€Î´) activity following acute exercise. FASEB Journal, 2011, 25, 1059.8.	0.5	0
98	Factors Affecting the Longevity and Strength in an In Vitro Model of the Boneâ€"Ligament Interface. Annals of Biomedical Engineering, 2010, 38, 2155-2166.	2.5	31
99	The initiation of embryonic-like collagen fibrillogenesis by adult human tendon fibroblasts when cultured under tension. Biomaterials, 2010, 31, 4889-4897.	11.4	81
100	Epigenetic control of skeletal muscle fibre type. Acta Physiologica, 2010, 199, 477-487.	3.8	43
101	A Limited Role for PI(3,4,5)P3 Regulation in Controlling Skeletal Muscle Mass in Response to Resistance Exercise. PLoS ONE, 2010, 5, e11624.	2.5	60
102	Training with Low Muscle Glycogen Enhances Fat Metabolism in Well-Trained Cyclists. Medicine and Science in Sports and Exercise, 2010, 42, 2046-2055.	0.4	150
103	Engineering an<i>In Vitro</i>Model of a Functional Ligament from Bone to Bone. Tissue Engineering - Part A, 2010, 16, 3515-3525.	3.1	76
104	The unfolded protein response is activated in skeletal muscle by high-fat feeding: potential role in the downregulation of protein synthesis. American Journal of Physiology - Endocrinology and Metabolism, 2010, 299, E695-E705.	3.5	134
105	Clenbuterol increases PGC1a promoter activity via a rapamycin sensitive mechanism. FASEB Journal, 2010, 24, 987.9.	0.5	0
106	Pgc1Î± Related Coactivator (prc) Promotes Mitochondrial Biogenesis And Substrate Utilization In C2c12 Myotubes. Medicine and Science in Sports and Exercise, 2010, 42, 16.	0.4	0
107	Lack of Cardiac Response to Running Wheel in MuRF1 KO Mice. Medicine and Science in Sports and Exercise, 2010, 42, 69-70.	0.4	0
108	Engineering the Boneâ€"Ligament Interface Using Polyethylene Glycol Diacrylate Incorporated with Hydroxyapatite. Tissue Engineering - Part A, 2009, 15, 1201-1209.	3.1	79

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109	The training stimulus experienced by the leg muscles during cycling in humans. Experimental Physiology, 2009, 94, 684-694.	2.0	31
110	mVps34 is activated following highâ€resistance contractions. Journal of Physiology, 2009, 587, 253-260.	2.9	80
111	The signaling underlying FITnessThis paper is one of a selection of papers published in this Special Issue, entitled 14th International Biochemistry of Exercise ConferenceÂâ€" Muscles as Molecular and Metabolic Machines, and has undergone the Journalâ€™s usual peer review process.. Applied Physiology, Nutrition and Metabolism, 2009, 34, 411-419.	1.9	26
112	Normal hypertrophy accompanied by phosphoryation and activation of AMPâ€activated protein kinase Î±1 following overload in LKB1 knockout mice. Journal of Physiology, 2008, 586, 1731-1741.	2.9	88
113	Small molecules can have big effects on endurance. Nature Chemical Biology, 2008, 4, 583-584.	8.0	2
114	Optimizing training adaptations by manipulating glycogen. European Journal of Sport Science, 2008, 8, 97-106.	2.7	40
115	Tension is required for fibripositor formation. Matrix Biology, 2008, 27, 371-375.	3.6	100
116	mVps34 is Activated by an Acute Bout of Resistance Exercise. FASEB Journal, 2008, 22, 959.23.	0.5	0
117	Metabolic effects of electrical stimulation in C2C12 myocytes. FASEB Journal, 2008, 22, .	0.5	0
118	5-Aminoimidazole-4-Carboxamide 1-Î²-d-Ribofuranoside Acutely Stimulates Skeletal Muscle 2-Deoxyglucose Uptake in Healthy Men. Diabetes, 2007, 56, 2078-2084.	0.6	93
119	Denervation does not change the ratio of collagen I and collagen III mRNA in the extracellular matrix of muscle. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 292, R983-R987.	1.8	31
120	Myogenic gene expression signature establishes that brown and white adipocytes originate from distinct cell lineages. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4401-4406.	7.1	637
121	mVps34 is activated by an acute bout of resistance exercise. Biochemical Society Transactions, 2007, 35, 1314-1316.	3.4	30
122	Engineered Muscle. Exercise and Sport Sciences Reviews, 2007, 35, 186-191.	3.0	24
123	Activation of Akt as a Potential Mediator of Adaptations that Reduce Muscle Injury. Medicine and Science in Sports and Exercise, 2006, 38, 1058-1064.	0.4	6
124	Training for Endurance and Strength. Medicine and Science in Sports and Exercise, 2006, 38, 1939-1944.	0.4	137
125	To perform your best: work hard not long. Journal of Physiology, 2006, 575, 690-690.	2.9	5
126	Cultured slow vs. fast skeletal muscle cells differ in physiology and responsiveness to stimulation. American Journal of Physiology - Cell Physiology, 2006, 291, C11-C17.	4.6	90

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127	Regional variation of tibialis anterior tendon mechanics is lost following denervation. Journal of Applied Physiology, 2006, 101, 1113-1117.	2.5	46
128	Resistance exercise, muscle loading/unloading and the control of muscle mass. Essays in Biochemistry, 2006, 42, 61-74.	4.7	86
129	Phosphorylation of S6K1 at Thr389 following resistance exercise does not require the PIFâ€pocket of PDK1. FASEB Journal, 2006, 20, LB33.	0.5	0
130	Activation of S6K1 during myoblast differentiation inhibits the formation of myotubes independent of IRSâ€•1. FASEB Journal, 2006, 20, A820.	0.5	0
131	Rapid formation of functional muscle in vitro using fibrin gels. Journal of Applied Physiology, 2005, 98, 706-713.	2.5	283
132	New dimensions in tissue engineering: possible models for human physiology. Experimental Physiology, 2005, 90, 799-806.	2.0	13
133	Selfâ€organization of rat cardiac cells into contractile 3â€D cardiac tissue. FASEB Journal, 2005, 19, 1-21.	0.5	119
134	Involvement of PPARÎ³ co-activator-1, nuclear respiratory factors 1 and 2, and PPARÎ± in the adaptive response to endurance exercise. Proceedings of the Nutrition Society, 2004, 63, 269-273.	1.0	118
135	Engineering of Functional Tendon. Tissue Engineering, 2004, 10, 755-761.	4.6	145
136	Skeletal muscle overexpression of nuclear respiratory factor 1 increases glucose transport capacity. FASEB Journal, 2003, 17, 1666-1673.	0.5	98
137	Adaptations of skeletal muscle to exercise: rapid increase in the transcriptional coactivator PGCâ€•1. FASEB Journal, 2002, 16, 1879-1886.	0.5	857
138	Autocrine Phosphorylation of p70S6k in Response to Acute Stretch in Myotubes. Molecular Cell Biology Research Communications: MCBRC: Part B of Biochemical and Biophysical Research Communications, 2000, 4, 76-80.	1.6	34
139	Phosphorylation of p70^{S6k}correlates with increased skeletal muscle mass following resistance exercise. American Journal of Physiology - Cell Physiology, 1999, 276, C120-C127.	4.6	584
140	Transcriptional regulation in response to exercise. Exercise and Sport Sciences Reviews, 1999, 27, 333-79.	3.0	4