Zhen Yan

List of Publications by Year
in descending order

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114 papers	15,407 citations	34105 52 h-index	32842 100 g-index
116 all docs	116 docs citations	116 times ranked	27077 citing authors

#	Article	IF	Citations
1	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	9.1	4,701
2	Exercise Stimulates Pgc-1Î± Transcription in Skeletal Muscle through Activation of the p38 MAPK Pathway. Journal of Biological Chemistry, 2005, 280, 19587-19593.	3.4	575
3	A PGC-1Î± Isoform Induced by Resistance Training Regulates Skeletal Muscle Hypertrophy. Cell, 2012, 151, 1319-1331.	28.9	548
4	Skeletal Muscle Fiber-type Switching, Exercise Intolerance, and Myopathy in PGC-1Î± Muscle-specific Knock-out Animals. Journal of Biological Chemistry, 2007, 282, 30014-30021.	3.4	530
5	microRNA-1 and microRNA-206 regulate skeletal muscle satellite cell proliferation and differentiation by repressing Pax7. Journal of Cell Biology, 2010, 190, 867-879.	5.2	530
6	Peroxisome Proliferator-activated Receptor-Î³ Co-activator 1Î±-mediated Metabolic Remodeling of Skeletal Myocytes Mimics Exercise Training and Reverses Lipid-induced Mitochondrial Inefficiency. Journal of Biological Chemistry, 2005, 280, 33588-33598.	3.4	416
7	Structural modulation of gut microbiota in life-long calorie-restricted mice. Nature Communications, 2013, 4, 2163.	12.8	404
8	Autophagy is required for exercise trainingâ€induced skeletal muscle adaptation and improvement of physical performance. FASEB Journal, 2013, 27, 4184-4193.	0.5	344
9	Ampk phosphorylation of Ulk1 is required for targeting of mitochondria to lysosomes in exercise-induced mitophagy. Nature Communications, 2017, 8, 548.	12.8	333
10	PGC-1Î± regulation by exercise training and its influences on muscle function and insulin sensitivity. American Journal of Physiology - Endocrinology and Metabolism, 2010, 299, E145-E161.	3.5	313
11	Regulation of exercise-induced fiber type transformation, mitochondrial biogenesis, and angiogenesis in skeletal muscle. Journal of Applied Physiology, 2011, 110, 264-274.	2.5	261
12	Phosphatidylserine receptor BAI1 and apoptotic cells as new promoters of myoblast fusion. Nature, 2013, 497, 263-267.	27.8	239
13	Total Skeletal Muscle PGC-1 Deficiency Uncouples Mitochondrial Derangements from Fiber Type Determination and Insulin Sensitivity. Cell Metabolism, 2010, 12, 633-642.	16.2	230
14	Highly Coordinated Gene Regulation in Mouse Skeletal Muscle Regeneration. Journal of Biological Chemistry, 2003, 278, 8826-8836.	3.4	227
15	Intermittent pressure overload triggers hypertrophy-independent cardiac dysfunction and vascular rarefaction. Journal of Clinical Investigation, 2006, 116, 1547-1560.	8.2	220
16	PGC-1Î± plays a functional role in exercise-induced mitochondrial biogenesis and angiogenesis but not fiber-type transformation in mouse skeletal muscle. American Journal of Physiology - Cell Physiology, 2010, 298, C572-C579.	4.6	203
17	miR-26a is required for skeletal muscle differentiation and regeneration in mice. Genes and Development, 2012, 26, 2180-2191.	5.9	200
18	A Novel MitoTimer Reporter Gene for Mitochondrial Content, Structure, Stress, and Damage in Vivo. Journal of Biological Chemistry, 2014, 289, 12005-12015.	3.4	196

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19	Induction of osteoarthritis and metabolic inflammation by a very highâ€fat diet in mice: Effects of shortâ€term exercise. Arthritis and Rheumatism, 2012, 64, 443-453.	6.7	191
20	Exercise Training-Induced Regulation of Mitochondrial Quality. Exercise and Sport Sciences Reviews, 2012, 40, 159-164.	3.0	186
21	Exercise Prevents Maternal High-Fat Dietâ€"Induced Hypermethylation of the Pgc-1Î± Gene and Age-Dependent Metabolic Dysfunction in the Offspring. Diabetes, 2014, 63, 1605-1611.	0.6	184
22	Molecular mechanisms for mitochondrial adaptation to exercise training in skeletal muscle. FASEB Journal, 2016, 30, 13-22.	0.5	179
23	Voluntary running induces fiber type-specific angiogenesis in mouse skeletal muscle. American Journal of Physiology - Cell Physiology, 2004, 287, C1342-C1348.	4.6	177
24	Identification of a novel mitochondrial uncoupler that does not depolarize the plasma membrane. Molecular Metabolism, 2014, 3, 114-123.	6.5	168
25	Translational Suppression of Atrophic Regulators by MicroRNA-23a Integrates Resistance to Skeletal Muscle Atrophy. Journal of Biological Chemistry, 2011, 286, 38456-38465.	3.4	165
26	MicroRNA-378 Targets the Myogenic Repressor MyoR during Myoblast Differentiation. Journal of Biological Chemistry, 2011, 286, 19431-19438.	3.4	147
27	p38Î³ Mitogen-Activated Protein Kinase Is a Key Regulator in Skeletal Muscle Metabolic Adaptation in Mice. PLoS ONE, 2009, 4, e7934.	2.5	136
28	Baf60c drives glycolytic metabolism in the muscle and improves systemic glucose homeostasis through Deptor-mediated Akt activation. Nature Medicine, 2013, 19, 640-645.	30.7	121
29	PR48, a Novel Regulatory Subunit of Protein Phosphatase 2A, Interacts with Cdc6 and Modulates DNA Replication in Human Cells. Molecular and Cellular Biology, 2000, 20, 1021-1029.	2.3	114
30	Dynamin-Related Protein 1 Deficiency Promotes Recovery from AKI. Journal of the American Society of Nephrology: JASN, 2018, 29, 194-206.	6.1	110
31	Skeletal muscle adaptation in response to voluntary running in Ca²⁺/calmodulin-dependent protein kinase IV-deficient mice. American Journal of Physiology - Cell Physiology, 2004, 287, C1311-C1319.	4.6	109
32	Real-time imaging of peroxisome proliferator-activated receptor-Î³ coactivator-1Î± promoter activity in skeletal muscles of living mice. American Journal of Physiology - Cell Physiology, 2004, 287, C790-C796.	4.6	108
33	Kruppel-like factor 15 regulates skeletal muscle lipid flux and exercise adaptation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6739-6744.	7.1	103
34	Oxidative Phenotype Protects Myofibers from Pathological Insults Induced by Chronic Heart Failure in Mice. American Journal of Pathology, 2007, 170, 599-608.	3.8	93
35	Disconnecting Mitochondrial Content from Respiratory Chain Capacity in PGC-1-Deficient Skeletal Muscle. Cell Reports, 2013, 3, 1449-1456.	6.4	93
36	TRPC3 channels confer cellular memory of recent neuromuscular activity. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9387-9392.	7.1	91

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37	Notch3 and Mef2c Proteins Are Mutually Antagonistic via Mkp1 Protein and miR-1/206 MicroRNAs in Differentiating Myoblasts. Journal of Biological Chemistry, 2012, 287, 40360-40370.	3.4	87
38	Extracellular superoxide dismutase, a molecular transducer of health benefits of exercise. Redox Biology, 2020, 32, 101508.	9.0	87
39	Endurance Exercise and the Regulation of Skeletal Muscle Metabolism. Progress in Molecular Biology and Translational Science, 2015, 135, 129-151.	1.7	83
40	Navigating the signalling network in mouse cardiac myocytes. Nature, 2002, 420, 712-714.	27.8	81
41	PGC-1Î± Promotes Nitric Oxide Antioxidant Defenses and Inhibits FOXO Signaling Against Cardiac Cachexia in Mice. American Journal of Pathology, 2011, 178, 1738-1748.	3.8	81
42	Autophagy is involved in adipogenic differentiation by repressesing proteasome-dependent PPARÎ³2 degradation. American Journal of Physiology - Endocrinology and Metabolism, 2013, 305, E530-E539.	3.5	78
43	Mitochondria-localized AMPK responds to local energetics and contributes to exercise and energetic stress-induced mitophagy. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	75
44	Correction of Multiple Striated Muscles in Murine Pompe Disease Through Adeno-associated Virusâ€“mediated Gene Therapy. Molecular Therapy, 2008, 16, 1366-1371.	8.2	70
45	Fiber Type-Specific Nitric Oxide Protects Oxidative Myofibers against Cachectic Stimuli. PLoS ONE, 2008, 3, e2086.	2.5	70
46	Mechanical stretch inhibits myoblast-to-adipocyte differentiation through Wnt signaling. Biochemical and Biophysical Research Communications, 2005, 329, 381-385.	2.1	68
47	Exercise Training Improves Plantar Flexor Muscle Function in mdx Mice. Medicine and Science in Sports and Exercise, 2012, 44, 1671-1679.	0.4	62
48	Epigenetic origins of metabolic disease: The impact of the maternal condition to the offspring epigenome and later health consequences. Food Science and Human Wellness, 2013, 2, 1-11.	4.9	61
49	Ulk1-mediated autophagy plays an essential role in mitochondrial remodeling and functional regeneration of skeletal muscle. American Journal of Physiology - Cell Physiology, 2017, 312, C724-C732.	4.6	60
50	Regulatory circuitry of TWEAKâ€Fn14 system and PGCâ€1Î± in skeletal muscle atrophy program. FASEB Journal, 2014, 28, 1398-1411.	0.5	59
51	Resident stem cells are not required for exercise-induced fiber-type switching and angiogenesis but are necessary for activity-dependent muscle growth. American Journal of Physiology - Cell Physiology, 2006, 290, C1461-C1468.	4.6	57
52	Midlife gene expressions identify modulators of aging through dietary interventions. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1201-9.	7.1	57
53	Analysis of the Major Patterns of B Cell Gene Expression Changes in Response to Short-Term Stimulation with 33 Single Ligands. Journal of Immunology, 2004, 173, 7141-7149.	0.8	55
54	Extracellular Superoxide Dismutase Ameliorates Skeletal Muscle Abnormalities, Cachexia, and Exercise Intolerance in Mice with Congestive Heart Failure. Circulation: Heart Failure, 2014, 7, 519-530.	3.9	54

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55	Functional interaction of regulatory factors with the Pgc-1Î± promoter in response to exercise by in vivo imaging. American Journal of Physiology - Cell Physiology, 2008, 295, C288-C292.	4.6	52
56	Mitophagy in maintaining skeletal muscle mitochondrial proteostasis and metabolic health with ageing. Journal of Physiology, 2017, 595, 6391-6399.	2.9	48
57	AMPK and the Adaptation to Exercise. Annual Review of Physiology, 2022, 84, 209-227.	13.1	48
58	Exercise-Induced Mitophagy in Skeletal Muscle and Heart. Exercise and Sport Sciences Reviews, 2019, 47, 151-156.	3.0	47
59	Nrf2 deficiency in myeloid cells is not sufficient to protect mice from high-fat diet-induced adipose tissue inflammation and insulin resistance. Free Radical Biology and Medicine, 2012, 52, 1708-1715.	2.9	45
60	Caveolin-1 Deletion Prevents Hypertensive Vascular Remodeling Induced by Angiotensin II. Hypertension, 2017, 69, 79-86.	2.7	45
61	Regulatory Elements Governing Transcription in Specialized Myofiber Subtypes. Journal of Biological Chemistry, 2001, 276, 17361-17366.	3.4	43
62	Conditional MitoTimer reporter mice for assessment of mitochondrial structure, oxidative stress, and mitophagy. Mitochondrion, 2019, 44, 20-26.	3.4	43
63	Conditional Expression of SV40 T-antigen in Mouse Cardiomyocytes Facilitates an Inducible Switch from Proliferation to Differentiation. Journal of Biological Chemistry, 2003, 278, 15927-15934.	3.4	42
64	Exercise-induced mitophagy in skeletal muscle occurs in the absence of stabilization of Pink1 on mitochondria. Cell Cycle, 2019, 18, 1-6.	2.6	42
65	A novel voluntary weightlifting model in mice promotes muscle adaptation and insulin sensitivity with simultaneous enhancement of autophagy and mTOR pathway. FASEB Journal, 2020, 34, 7330-7344.	0.5	42
66	Calorie restriction and endurance exercise share potent anti-inflammatory function in adipose tissues in ameliorating diet-induced obesity and insulin resistance in mice. Nutrition and Metabolism, 2010, 7, 59.	3.0	41
67	Protein Phosphatase 2A Is Targeted to Cell Division Control Protein 6 by a Calcium-binding Regulatory Subunit. Journal of Biological Chemistry, 2008, 283, 16104-16114.	3.4	40
68	HDAC4 Regulates Muscle Fiber Type-Specific Gene Expression Programs. Molecules and Cells, 2015, 38, 343-348.	2.6	38
69	Reactive Oxygen Species/Nitric Oxide Mediated Inter-Organ Communication in Skeletal Muscle Wasting Diseases. Antioxidants and Redox Signaling, 2017, 26, 700-717.	5.4	38
70	Transcriptional profiling in mouse skeletal muscle following a single bout of voluntary running: evidence of increased cell proliferation. Journal of Applied Physiology, 2005, 99, 2406-2415.	2.5	37
71	Deletion of the Protein Kinase A/Protein Kinase G Target SMTNL1 Promotes an Exercise-adapted Phenotype in Vascular Smooth Muscle. Journal of Biological Chemistry, 2008, 283, 11850-11859.	3.4	37
72	The myocardial infarct-exacerbating effect of cell-free DNA is mediated by the high-mobility group box 1â€“receptor for advanced glycation end productsâ€“Toll-like receptor 9 pathway. Journal of Thoracic and Cardiovascular Surgery, 2019, 157, 2256-2269.e3.	0.8	37

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73	The Mitochondrial Permeability Transition Pore Regulator Cyclophilin D Exhibits Tissue-Specific Control of Metabolic Homeostasis. PLoS ONE, 2016, 11, e0167910.	2.5	34
74	Enhanced Skeletal Muscle Expression of Extracellular Superoxide Dismutase Mitigates Streptozotocin-Induced Diabetic Cardiomyopathy by Reducing Oxidative Stress and Aberrant Cell Signaling. Circulation: Heart Failure, 2015, 8, 188-197.	3.9	32
75	Exercise leads to unfavourable cardiac remodelling and enhanced metabolic homeostasis in obese mice with cardiac and skeletal muscle autophagy deficiency. Scientific Reports, 2017, 7, 7894.	3.3	32
76	Possible roles for ATP release from RBCs exclude the cAMP-mediated Panx1 pathway. American Journal of Physiology - Cell Physiology, 2017, 313, C593-C603.	4.6	30
77	A venous-specific purinergic signaling cascade initiated by Pannexin 1 regulates TNFÎ±-induced increases in endothelial permeability. Science Signaling, 2021, 14, .	3.6	30
78	Voluntary Running Suppresses Proinflammatory Cytokines and Bone Marrow Endothelial Progenitor Cell Levels in Apolipoprotein-Eâ€“Deficient Mice. Antioxidants and Redox Signaling, 2009, 11, 15-23.	5.4	26
79	Exercise, PGC-1Î±, and metabolic adaptation in skeletal muscleThis paper article 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, 424-427.	1.9	25
80	Atg2, Atg9 and Atg18 in mitochondrial integrity, cardiac function and healthspan in Drosophila. Journal of Molecular and Cellular Cardiology, 2019, 127, 116-124.	1.9	25
81	Transcriptional Control of the Pgc-1Î± Gene in Skeletal Muscle In Vivo. Exercise and Sport Sciences Reviews, 2007, 35, 97-101.	3.0	24
82	Myocyte Specific Overexpression of Myoglobin Impairs Angiogenesis After Hind-Limb Ischemia. Arteriosclerosis, Thrombosis, and Vascular Biology, 2008, 28, 2144-2150.	2.4	22
83	Cytochrome c mRNA in skeletal muscles of immobilized limbs. Journal of Applied Physiology, 1996, 81, 1941-1945.	2.5	21
84	Mitochondrial protein S-nitrosation protects against ischemia reperfusion-induced denervation at neuromuscular junction in skeletal muscle. Free Radical Biology and Medicine, 2018, 117, 180-190.	2.9	21
85	Muscle-derived extracellular superoxide dismutase inhibits endothelial activation and protects against multiple organ dysfunction syndrome in mice. Free Radical Biology and Medicine, 2017, 113, 212-223.	2.9	20
86	Molecular Mechanisms of Exercise and Healthspan. Cells, 2022, 11, 872.	4.1	14
87	Muscle-specific activation of Ca2+/calmodulin-dependent protein kinase IV increases whole-body insulin action in mice. Diabetologia, 2014, 57, 1232-1241.	6.3	12
88	Voluntary running protects against neuromuscular dysfunction following hindlimb ischemia-reperfusion in mice. Journal of Applied Physiology, 2019, 126, 193-201.	2.5	11
89	Exercise during pregnancy mitigates negative effects of parental obesity on metabolic function in adult mouse offspring. Journal of Applied Physiology, 2021, 130, 605-616.	2.5	11
90	Long-term voluntary running prevents the onset of symptomatic Friedreichâ€™s ataxia in mice. Scientific Reports, 2020, 10, 6095.	3.3	10

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91	Cytochromecpromoter activity in soleus and white vastus lateralis muscles in rats. Journal of Applied Physiology, 1998, 85, 973-978.	2.5	9
92	Lysophosphatidic acid counteracts glucagon-induced hepatocyte glucose production via STAT3. Scientific Reports, 2017, 7, 127.	3.3	9
93	AMPK-mediated potentiation of GABAergic signalling drives hypoglycaemia-provoked spike-wave seizures. Brain, 2022, 145, 2332-2346.	7.6	7
94	Involvement of mTOR in Type 2 CRF Receptor Inhibition of Insulin Signaling in Muscle Cells. Molecular Endocrinology, 2015, 29, 831-841.	3.7	6
95	Precision remodeling: how exercise improves mitochondrial quality in myofibers. Current Opinion in Physiology, 2019, 10, 96-101.	1.8	6
96	Response to Comment on Laker et al. Exercise Prevents Maternal High-Fat Dietâ€“Induced Hypermethylation of thePgc-1Î±Gene and Age-Dependent Metabolic Dysfunction in the Offspring. Diabetes 2014;63:1605â€“1611. Diabetes, 2014, 63, e6-e7.	0.6	5
97	Atg6 deficiency exacerbates glucose intolerance in mice on highâ€fat diet. FASEB Journal, 2012, 26, 869.18.	0.5	3
98	Ulk1, Not Ulk2, Is Required for Exercise Training-Induced Improvement of Insulin Response in Skeletal Muscle. Frontiers in Physiology, 2021, 12, 732308.	2.8	2
99	Targeting healthspan to optimally combat non-communicable disease in an aging world. Sports Medicine and Health Science, 2019, 1, 59-60.	2.0	1
100	p38 gamma Mapk is required for exerciseâ€induced Pgcâ€1alpha expression and mitochondrial biogenesis in skeletal muscle. FASEB Journal, 2008, 22, 754.18.	0.5	1
101	Voluntary Exercise Suppresses Choroidal Neovascularization in Mice. , 2020, 61, 52.		1
102	Total Skeletal Muscle PGC-1 Deficiency Uncouples Mitochondrial Derangements from Fiber Type Determination and Insulin Sensitivity. Cell Metabolism, 2011, 13, 114.	16.2	0
103	Manifested skeletal muscle abnormalities in fastâ€twitch, glycolytic myofibers in mice of chronic heart failure. FASEB Journal, 2006, 20, A387.	0.5	0
104	PGCâ€1Î± is required for exerciseâ€induced mitochondrial biogenesis, but not fiber type transformation, in skeletal muscle. FASEB Journal, 2008, 22, 754.17.	0.5	0
105	NOâ€dependent upâ€regulation of antioxidant genes protects oxidative myofibers from cachectic stimuli in mice. FASEB Journal, 2008, 22, 754.16.	0.5	0
106	A functional role of superoxide dismutase 3 in nitric oxideâ€mediated protection against catabolic wasting in skeletal muscle. FASEB Journal, 2010, 24, lb672.	0.5	0
107	Increased contractile acitivity induces autophagy in skeletal muscle. FASEB Journal, 2010, 24, lb646.	0.5	0
108	Exercise during pregnancy attenuates prenatal highâ€fat dietâ€induced hypermethylation of Pgcâ€1Î± in skeletal muscle. FASEB Journal, 2012, 26, 1086.19.	0.5	0

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109	Enhanced expression of EcSOD in skeletal muscle blocks chronic heart failureâ€“induced muscle atrophy and exercise intolerance in mice. FASEB Journal, 2012, 26, .	0.5	0
110	A novel Mitoâ€Timer reporter gene for measurement of mitochondrial quantity and quality in vivo. FASEB Journal, 2013, 27, 1209.5.	0.5	0
111	Exercise during pregnancy attenuates prenatal highâ€fat dietâ€induced hypermethylation of the Pgcâ€1Î± gene and protects against ageâ€induced glucose intolerance in the offspring. FASEB Journal, 2013, 27, 1134.3.	0.5	0
112	Muscleâ€specific deletion of p38Î±/Î² MAPK improves glucose tolerance and reduces body fat but impairs exercise capacity. FASEB Journal, 2013, 27, 1152.22.	0.5	0
113	The Mitochondrial Permeability Transition Pore Regulator Cyclophilin D Exhibits Tissueâ€Specific Control of Metabolic Homeostasis. FASEB Journal, 2015, 29, 1036.14.	0.5	0
114	Ulk1 is Required for Lysosome Targeting to Damaged Mitochondria Following Acute Exercise. FASEB Journal, 2015, 29, 821.9.	0.5	0