Timothy R Koves

List of Publications by Year
in descending order

64 papers	7,544 citations	71061 41 h-index	123376 61 g-index
65 all docs	65 docs citations	65 times ranked	11177 citing authors

#	Article	IF	Citations
1	Mitochondrial Overload and Incomplete Fatty Acid Oxidation Contribute to Skeletal Muscle Insulin Resistance. Cell Metabolism, 2008, 7, 45-56.	7.2	1,618
2	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.	1.6	416
3	Hepatic expression of malonyl-CoA decarboxylase reverses muscle, liver and whole-animal insulin resistance. Nature Medicine, 2004, 10, 268-274.	15.2	414
4	SIRT4 Coordinates the Balance between Lipid Synthesis and Catabolism by Repressing Malonyl CoA Decarboxylase. Molecular Cell, 2013, 50, 686-698.	4.5	315
5	Muscle-Specific Deletion of Carnitine Acetyltransferase Compromises Glucose Tolerance and Metabolic Flexibility. Cell Metabolism, 2012, 15, 764-777.	7.2	307
6	Inhibition of De Novo Ceramide Synthesis Reverses Diet-Induced Insulin Resistance and Enhances Whole-Body Oxygen Consumption. Diabetes, 2010, 59, 2453-2464.	0.3	296
7	Adipose Acyl-CoA Synthetase-1 Directs Fatty Acids toward Î²-Oxidation and Is Required for Cold Thermogenesis. Cell Metabolism, 2010, 12, 53-64.	7.2	277
8	Carnitine Insufficiency Caused by Aging and Overnutrition Compromises Mitochondrial Performance and Metabolic Control. Journal of Biological Chemistry, 2009, 284, 22840-22852.	1.6	271
9	Differences in extracellular dopamine concentrations in the nucleus accumbens during response-dependent and response-independent cocaine administration in the rat. Psychopharmacology, 1997, 133, 7-16.	1.5	264
10	Energy Metabolic Reprogramming in the Hypertrophied and Early Stage Failing Heart. Circulation: Heart Failure, 2014, 7, 1022-1031.	1.6	233
11	Liver-specific Loss of Long Chain Acyl-CoA Synthetase-1 Decreases Triacylglycerol Synthesis and Î²-Oxidation and Alters Phospholipid Fatty Acid Composition. Journal of Biological Chemistry, 2009, 284, 27816-27826.	1.6	188
12	Mouse Cardiac Acyl Coenzyme A Synthetase 1 Deficiency Impairs Fatty Acid Oxidation and Induces Cardiac Hypertrophy. Molecular and Cellular Biology, 2011, 31, 1252-1262.	1.1	156
13	Subsarcolemmal and intermyofibrillar mitochondria play distinct roles in regulating skeletal muscle fatty acid metabolism. American Journal of Physiology - Cell Physiology, 2005, 288, C1074-C1082.	2.1	135
14	Metabolite signatures of exercise training in human skeletal muscle relate to mitochondrial remodelling and cardiometabolic fitness. Diabetologia, 2014, 57, 2282-2295.	2.9	121
15	Electrical stimulation increases hypertrophy and metabolic flux in tissue-engineered human skeletal muscle. Biomaterials, 2019, 198, 259-269.	5.7	121
16	Measurement of Fatty Acid Oxidation Rates in Animal Tissues and Cell Lines. Methods in Enzymology, 2014, 542, 391-405.	0.4	120
17	Insulin-Stimulated Cardiac Glucose Oxidation Is Increased in High-Fat Dietâ€"Induced Obese Mice Lacking Malonyl CoA Decarboxylase. Diabetes, 2009, 58, 1766-1775.	0.3	116
18	A Lipidomics Analysis of the Relationship Between Dietary Fatty Acid Composition and Insulin Sensitivity in Young Adults. Diabetes, 2013, 62, 1054-1063.	0.3	107

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19	Skeletal muscle adaptation to fatty acid depends on coordinated actions of the PPARs and PGC1Î±: implications for metabolic disease. Applied Physiology, Nutrition and Metabolism, 2007, 32, 874-883.	0.9	103
20	Metabolic profiling of PPARÎ± ^{âˆ’/âˆ’} mice reveals defects in carnitine and amino acid homeostasis that are partially reversed by oral carnitine supplementation. FASEB Journal, 2009, 23, 586-604.	0.2	101
21	Chronic Cocaine Administration Increases CNS Tyrosine Hydroxylase Enzyme Activity and mRNA Levels and Tryptophan Hydroxylase Enzyme Activity Levels. Journal of Neurochemistry, 1993, 61, 2262-2268.	2.1	99
22	Compartmentalized Acyl-CoA Metabolism in Skeletal Muscle Regulates Systemic Glucose Homeostasis. Diabetes, 2015, 64, 23-35.	0.3	97
23	PPARÎ³ coactivator-1Î± contributes to exercise-induced regulation of intramuscular lipid droplet programming in mice and humans. Journal of Lipid Research, 2013, 54, 522-534.	2.0	89
24	Mitochondrial Diagnostics: A Multiplexed Assay Platform for Comprehensive Assessment of Mitochondrial Energy Fluxes. Cell Reports, 2018, 24, 3593-3606.e10.	2.9	87
25	Obesity and lipid stress inhibit carnitine acetyltransferase activity. Journal of Lipid Research, 2014, 55, 635-644.	2.0	80
26	Carnitine Acetyltransferase Mitigates Metabolic Inertia and Muscle Fatigue during Exercise. Cell Metabolism, 2015, 22, 65-76.	7.2	78
27	Contraction of insulin-resistant muscle normalizes insulin action in association with increased mitochondrial activity and fatty acid catabolism. American Journal of Physiology - Cell Physiology, 2007, 292, C729-C739.	2.1	77
28	Dietary intake of palmitate and oleate has broad impact on systemic and tissue lipid profiles in humans. American Journal of Clinical Nutrition, 2014, 99, 436-445.	2.2	77
29	Systematic Dissection of the Metabolic-Apoptotic Interface in AML Reveals Heme Biosynthesis to Be a Regulator of Drug Sensitivity. Cell Metabolism, 2019, 29, 1217-1231.e7.	7.2	75
30	Nutritional modulation of heart failure in mitochondrial pyruvate carrierâ€“deficient mice. Nature Metabolism, 2020, 2, 1232-1247.	5.1	74
31	Evidence of a malonyl-CoA-insensitive carnitine palmitoyltransferase I activity in red skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2002, 282, E1014-E1022.	1.8	65
32	Receptor-Selective Coactivators as Tools to Define the Biology of Specific Receptor-Coactivator Pairs. Molecular Cell, 2006, 24, 797-803.	4.5	65
33	Molecular alterations in skeletal muscle in rheumatoid arthritis are related to disease activity, physical inactivity, and disability. Arthritis Research and Therapy, 2017, 19, 12.	1.6	63
34	Metabolic Catastrophe in Mice Lacking Transferrin Receptor in Muscle. EBioMedicine, 2015, 2, 1705-1717.	2.7	62
35	Substituting dietary monounsaturated fat for saturated fat is associated with increased daily physical activity and resting energy expenditure and with changes in mood. American Journal of Clinical Nutrition, 2013, 97, 689-697.	2.2	61
36	Alterations in Skeletal Muscle Fatty Acid Handling Predisposes Middle-Aged Mice to Diet-Induced Insulin Resistance. Diabetes, 2010, 59, 1366-1375.	0.3	60

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37	Peroxisome Proliferatorâ€"Activated Receptor-Î³ Coactivator-1Î± Overexpression Increases Lipid Oxidation in Myocytes From Extremely Obese Individuals. Diabetes, 2010, 59, 1407-1415.	0.3	55
38	Targeted Metabolomics Connects Thioredoxin-interacting Protein (TXNIP) to Mitochondrial Fuel Selection and Regulation of Specific Oxidoreductase Enzymes in Skeletal Muscle. Journal of Biological Chemistry, 2014, 289, 8106-8120.	1.6	55
39	Extreme Acetylation of the Cardiac Mitochondrial Proteome Does Not Promote Heart Failure. Circulation Research, 2020, 127, 1094-1108.	2.0	54
40	Metabolomic analysis reveals altered skeletal muscle amino acid and fatty acid handling in obese humans. Obesity, 2015, 23, 981-988.	1.5	53
41	Muscle-Liver Trafficking of BCAA-Derived Nitrogen Underlies Obesity-Related Glycine Depletion. Cell Reports, 2020, 33, 108375.	2.9	49
42	Disruption of Acetyl-Lysine Turnover in Muscle Mitochondria Promotes Insulin Resistance and Redox Stress without Overt Respiratory Dysfunction. Cell Metabolism, 2020, 31, 131-147.e11.	7.2	41
43	Respiratory Phenomics across Multiple Models of Protein Hyperacylation in Cardiac Mitochondria Reveals a Marginal Impact on Bioenergetics. Cell Reports, 2019, 26, 1557-1572.e8.	2.9	39
44	Identification of a novel malonyl-CoA IC50 for CPT-I: implications for predicting <i>inÂvivo</i> fatty acid oxidation rates. Biochemical Journal, 2012, 448, 13-20.	1.7	36
45	Re-patterning of Skeletal Muscle Energy Metabolism by Fat Storage-inducing Transmembrane Protein 2. Journal of Biological Chemistry, 2011, 286, 42188-42199.	1.6	28
46	Ectopic lipid deposition and the metabolic profile of skeletal muscle in ovariectomized mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2013, 304, R206-R217.	0.9	27
47	Increased Insulin Sensitivity in Mice Lacking Collectrin, a Downstream Target of HNF-1Î±. Molecular Endocrinology, 2009, 23, 881-892.	3.7	24
48	Rejuvenation of Neutrophil Functions in Association With Reduced Diabetes Risk Following Ten Weeks of Low-Volume High Intensity Interval Walking in Older Adults With Prediabetes â€" A Pilot Study. Frontiers in Immunology, 2020, 11, 729.	2.2	23
49	Metabolic Alterations Contribute to Enhanced Inflammatory Cytokine Production in Irgm1-deficient Macrophages. Journal of Biological Chemistry, 2017, 292, 4651-4662.	1.6	22
50	Metabolic profiling of muscle contraction in lean compared with obese rodents. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 299, R926-R934.	0.9	18
51	Human, Tissue-Engineered, Skeletal Muscle Myobundles to Measure Oxygen Uptake and Assess Mitochondrial Toxicity. Tissue Engineering - Part C: Methods, 2017, 23, 189-199.	1.1	18
52	Treatment with the 3-Ketoacyl-CoA Thiolase Inhibitor Trimetazidine Does Not Exacerbate Whole-Body Insulin Resistance in Obese Mice. Journal of Pharmacology and Experimental Therapeutics, 2014, 349, 487-496.	1.3	17
53	Plasma acylcarnitines during insulin stimulation in humans are reflective of age-related metabolic dysfunction. Biochemical and Biophysical Research Communications, 2016, 479, 868-874.	1.0	16
54	A Mitochondrial Progesterone Receptor Increases Cardiac Beta-Oxidation and Remodeling. Journal of the Endocrine Society, 2019, 3, 446-467.	0.1	15

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55	Plasma MicroRNAs in Established Rheumatoid Arthritis Relate to Adiposity and Altered Plasma and Skeletal Muscle Cytokine and Metabolic Profiles. Frontiers in Immunology, 2019, 10, 1475.	2.2	13
56	Myocardial Lipin 1 knockout in mice approximates cardiac effects of human LPIN1 mutations. JCI Insight, 2021, 6, .	2.3	12
57	Nicotinamide riboside supplementation confers marginal metabolic benefits in obese mice without remodeling the muscle acetyl-proteome. IScience, 2022, 25, 103635.	1.9	11
58	Rheumatoid arthritis T cell and muscle oxidative metabolism associate with exercise-induced changes in cardiorespiratory fitness. Scientific Reports, 2022, 12, 7450.	1.6	9
59	Time-dependent recovery from the effects of 6-hydroxydopamine lesions of the rat nucleus accumbens on cocaine self-administration and the levels of dopamine in microdialysates. Psychopharmacology, 2004, 171, 413-420.	1.5	8
60	Disruption of STIM1-mediated Ca2+ sensing and energy metabolism in adult skeletal muscle compromises exercise tolerance, proteostasis, and lean mass. Molecular Metabolism, 2022, 57, 101429.	3.0	6
61	Increased palmitate intake: higher acylcarnitine concentrations without impaired progression of Î²-oxidation. Journal of Lipid Research, 2015, 56, 1795-1807.	2.0	4
62	Metabolic Mechanisms of Muscle Insulin Resistance. , 2008, , 35-47.		1
63	Substituting dietary monounsaturated fat for saturated fat is associated with increased daily physical activity and resting energy expenditure and with changes in mood. FASEB Journal, 2013, 27, 1068.1.	0.2	0
64	Abstract P284: The Chemotherapeutic Agent Docetaxel Disrupts Mitochondrial Energetics in 3D Human Bioengineered Myobundles. Circulation, 2019, 139, .	1.6	0