Jesper B Birk

List of Publications by Year
in descending order

61 papers	4,254 citations	117625 34 h-index	123424 61 g-index
63 all docs	63 docs citations	63 times ranked	4209 citing authors

#	Article	IF	Citations
1	Knockout of the Î±2 but Not Î±1 5â€²-AMP-activated Protein Kinase Isoform Abolishes 5-Aminoimidazole-4-carboxamide-1-Î²-4-ribofuranosidebut Not Contraction-induced Glucose Uptake in Skeletal Muscle. Journal of Biological Chemistry, 2004, 279, 1070-1079.	3.4	484
2	Predominant Î±2/Î²2/Î³3 AMPK activation during exercise in human skeletal muscle. Journal of Physiology, 2006, 577, 1021-1032.	2.9	251
3	Effects of Î±â€AMPK knockout on exerciseâ€induced gene activation in mouse skeletal muscle. FASEB Journal, 2005, 19, 1146-1148.	0.5	248
4	The Â2-5'AMP-Activated Protein Kinase Is a Site 2 Glycogen Synthase Kinase in Skeletal Muscle and Is Responsive to Glucose Loading. Diabetes, 2004, 53, 3074-3081.	0.6	215
5	Human Muscle Fiber Typeâ€“Specific Insulin Signaling: Impact of Obesity and Type 2 Diabetes. Diabetes, 2015, 64, 485-497.	0.6	150
6	5â€²AMP activated protein kinase expression in human skeletal muscle: effects of strength training and type 2 diabetes. Journal of Physiology, 2005, 564, 563-573.	2.9	141
7	Enhanced Muscle Insulin Sensitivity After Contraction/Exercise Is Mediated by AMPK. Diabetes, 2017, 66, 598-612.	0.6	137
8	Genetic disruption of AMPK signaling abolishes both contraction- and insulin-stimulated TBC1D1 phosphorylation and 14-3-3 binding in mouse skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2009, 297, E665-E675.	3.5	136
9	Impaired Insulin-Stimulated Phosphorylation of Akt and AS160 in Skeletal Muscle of Women With Polycystic Ovary Syndrome Is Reversed by Pioglitazone Treatment. Diabetes, 2008, 57, 357-366.	0.6	130
10	Exercise-induced AMPK activity in skeletal muscle: Role in glucose uptake and insulin sensitivity. Molecular and Cellular Endocrinology, 2013, 366, 204-214.	3.2	124
11	AS160 phosphorylation is associated with activation of Î±2Î²2Î³1- but not Î±2Î²2Î³3-AMPK trimeric complex in skeletal muscle during exercise in humans. American Journal of Physiology - Endocrinology and Metabolism, 2007, 292, E715-E722.	3.5	115
12	Prior AICAR Stimulation Increases Insulin Sensitivity in Mouse Skeletal Muscle in an AMPK-Dependent Manner. Diabetes, 2015, 64, 2042-2055.	0.6	115
13	Impaired insulin-induced site-specific phosphorylation of TBC1 domain family, member 4 (TBC1D4) in skeletal muscle of type 2 diabetes patients is restored by endurance exercise-training. Diabetologia, 2011, 54, 157-167.	6.3	110
14	Lipid-Induced Insulin Resistance Affects Women Less Than Men and Is Not Accompanied by Inflammation or Impaired Proximal Insulin Signaling. Diabetes, 2011, 60, 64-73.	0.6	106
15	Acute exercise and physiological insulin induce distinct phosphorylation signatures on TBC1D1 and TBC1D4 proteins in human skeletal muscle. Journal of Physiology, 2014, 592, 351-375.	2.9	95
16	A-769662 activates AMPK Î²₁-containing complexes but induces glucose uptake through a PI3-kinase-dependent pathway in mouse skeletal muscle. American Journal of Physiology - Cell Physiology, 2009, 297, C1041-C1052.	4.6	93
17	Exercise Alleviates Lipid-Induced Insulin Resistance in Human Skeletal Muscleâ€“Signaling Interaction at the Level of TBC1 Domain Family Member 4. Diabetes, 2012, 61, 2743-2752.	0.6	92
18	Human muscle fibre typeâ€specific regulation of AMPK and downstream targets by exercise. Journal of Physiology, 2015, 593, 2053-2069.	2.9	90

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19	Deep muscle-proteomic analysis of freeze-dried human muscle biopsies reveals fiber type-specific adaptations to exercise training. Nature Communications, 2021, 12, 304.	12.8	79
20	Genetic impairment of AMPKÎ±2 signaling does not reduce muscle glucose uptake during treadmill exercise in mice. American Journal of Physiology - Endocrinology and Metabolism, 2009, 297, E924-E934.	3.5	78
21	PDH-E1Î± Dephosphorylation and Activation in Human Skeletal Muscle During Exercise. Diabetes, 2006, 55, 3020-3027.	0.6	68
22	AMPKÎ± is critical for enhancing skeletal muscle fatty acid utilization duringin vivoexercise in mice. FASEB Journal, 2015, 29, 1725-1738.	0.5	68
23	Contraction-induced skeletal muscle FAT/CD36 trafficking and FA uptake is AMPK independent. Journal of Lipid Research, 2011, 52, 699-711.	4.2	67
24	AMPK and TBC1D1 Regulate Muscle Glucose Uptake After, but Not During, Exercise and Contraction. Diabetes, 2019, 68, 1427-1440.	0.6	67
25	Dysregulation of Glycogen Synthase COOH- and NH2-Terminal Phosphorylation by Insulin in Obesity and Type 2 Diabetes Mellitus. Journal of Clinical Endocrinology and Metabolism, 2009, 94, 4547-4556.	3.6	64
26	Intact Regulation of the AMPK Signaling Network in Response to Exercise and Insulin in Skeletal Muscle of Male Patients With Type 2 Diabetes: Illumination of AMPK Activation in Recovery From Exercise. Diabetes, 2016, 65, 1219-1230.	0.6	62
27	Oral glucose ingestion attenuates exercise-induced activation of 5â€²-AMP-activated protein kinase in human skeletal muscle. Biochemical and Biophysical Research Communications, 2006, 342, 949-955.	2.1	61
28	Insulin signalling: effects of prior exercise. Acta Physiologica Scandinavica, 2003, 178, 321-328.	2.2	58
29	Exerciseâ€induced TBC1D1 Ser237 phosphorylation and 14â€3â€3 protein binding capacity in human skeletal muscle. Journal of Physiology, 2010, 588, 4539-4548.	2.9	58
30	Exercise-induced molecular mechanisms promoting glycogen supercompensation in human skeletal muscle. Molecular Metabolism, 2018, 16, 24-34.	6.5	58
31	Exercise signalling to glucose transport in skeletal muscle. Proceedings of the Nutrition Society, 2004, 63, 211-216.	1.0	44
32	Exercise training reduces the insulinâ€sensitizing effect of a single bout of exercise in human skeletal muscle. Journal of Physiology, 2019, 597, 89-103.	2.9	41
33	Hyperglycaemia normalises insulin action on glucose metabolism but not the impaired activation of AKT and glycogen synthase in the skeletal muscle of patients with type 2 diabetes. Diabetologia, 2012, 55, 1435-1445.	6.3	38
34	Effect of birth weight and 12 weeks of exercise training on exercise-induced AMPK signaling in human skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2013, 304, E1379-E1390.	3.5	35
35	Low Muscle Glycogen and Elevated Plasma Free Fatty Acid Modify but Do Not Prevent Exercise-Induced PDH Activation in Human Skeletal Muscle. Diabetes, 2010, 59, 26-32.	0.6	32
36	Inducible deletion of skeletal muscle AMPKÎ± reveals that AMPK is required for nucleotide balance but dispensable for muscle glucose uptake and fat oxidation during exercise. Molecular Metabolism, 2020, 40, 101028.	6.5	32

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37	Regulation of PDH in human arm and leg muscles at rest and during intense exercise. American Journal of Physiology - Endocrinology and Metabolism, 2008, 294, E36-E42.	3.5	30
38	Genetic and metabolic effects on skeletal muscle AMPK in young and older twins. American Journal of Physiology - Endocrinology and Metabolism, 2009, 297, E956-E964.	3.5	30
39	Epinephrine-stimulated glycogen breakdown activates glycogen synthase and increases insulin-stimulated glucose uptake in epitrochlearis muscles. American Journal of Physiology - Endocrinology and Metabolism, 2015, 308, E231-E240.	3.5	29
40	AMPKÎ± is essential for acute exercise-induced gene responses but not for exercise training-induced adaptations in mouse skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2015, 309, E900-E914.	3.5	28
41	Simultaneous human papilloma virus type 16 E7 and cdk inhibitor p21 expression induces apoptosis and cathepsin B activation. Virology, 2004, 320, 301-312.	2.4	26
42	Absence of humoral mediated 5â€²AMPâ€activated protein kinase activation in human skeletal muscle and adipose tissue during exercise. Journal of Physiology, 2007, 585, 897-909.	2.9	23
43	Transgenic models â€“ a scientific tool to understand exercise-induced metabolism: the regulatory role of AMPK (5â€²-AMP-activated protein kinase) in glucose transport and glycogen synthase activity in skeletal muscle. Biochemical Society Transactions, 2003, 31, 1290-1294.	3.4	22
44	A Single Bout of One-Legged Exercise to Local Exhaustion Decreases Insulin Action in Nonexercised Muscle Leading to Decreased Whole-Body Insulin Action. Diabetes, 2020, 69, 578-590.	0.6	21
45	The effect of age and unilateral leg immobilization for 2 weeks on substrate utilization during moderateâ€intensity exercise in human skeletal muscle. Journal of Physiology, 2016, 594, 2339-2358.	2.9	20
46	ADAMTS9 Regulates Skeletal Muscle Insulin Sensitivity Through Extracellular Matrix Alterations. Diabetes, 2019, 68, 502-514.	0.6	20
47	Reduced malonyl-CoA content in recovery from exercise correlates with improved insulin-stimulated glucose uptake in human skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2009, 296, E787-E795.	3.5	18
48	Metformin does not compromise energy status in human skeletal muscle at rest or during acute exercise: A randomised, crossover trial. Physiological Reports, 2019, 7, e14307.	1.7	18
49	Coingestion of protein and carbohydrate in the early recovery phase, compared with carbohydrate only, improves endurance performance despite similar glycogen degradation and AMPK phosphorylation. Journal of Applied Physiology, 2020, 129, 297-310.	2.5	18
50	Akt2 influences glycogen synthase activity in human skeletal muscle through regulation of NH₂-terminal (sites 2 + 2a) phosphorylation. American Journal of Physiology - Endocrinology and Metabolism, 2013, 304, E631-E639.	3.5	17
51	Differential aetiology and impact of phosphoinositide 3-kinase (PI3K) and Akt signalling in skeletal muscle on in vivo insulin action. Diabetologia, 2010, 53, 1998-2007.	6.3	14
52	Glucose metabolism and metabolic flexibility in cultured skeletal muscle cells is related to exercise status in young male subjects. Archives of Physiology and Biochemistry, 2018, 124, 119-130.	2.1	14
53	The insulinâ€sensitizing effect of a single exercise bout is similar in type I and type II human muscle fibres. Journal of Physiology, 2020, 598, 5687-5699.	2.9	13
54	Direct small molecule ADaM-site AMPK activators reveal an AMPKÎ³3-independent mechanism for blood glucose lowering. Molecular Metabolism, 2021, 51, 101259.	6.5	10

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55	Skeletal muscle adaptations to exercise are not influenced by metformin treatment in humans: secondary analyses of 2 randomized, clinical trials. Applied Physiology, Nutrition and Metabolism, 2022, 47, 309-320.	1.9	8
56	Measurement of Insulin- and Contraction-Stimulated Glucose Uptake in Isolated and Incubated Mature Skeletal Muscle from Mice. Journal of Visualized Experiments, 2021, , .	0.3	7
57	Kinase Activity Determination of Specific AMPK Complexes/Heterotrimers in the Skeletal Muscle. Methods in Molecular Biology, 2018, 1732, 215-228.	0.9	6
58	AXIN1 knockout does not alter AMPK/mTORC1 regulation and glucose metabolism in mouse skeletal muscle. Journal of Physiology, 2021, 599, 3081-3100.	2.9	6
59	Illumination of the Endogenous Insulin-Regulated TBC1D4 Interactome in Human Skeletal Muscle. Diabetes, 2022, 71, 906-920.	0.6	3
60	Identifying the Heterotrimeric Complex Stoichiometry of AMPK in Skeletal Muscle by Immunoprecipitation. Methods in Molecular Biology, 2018, 1732, 203-213.	0.9	1
61	A novel AMPK activator, PTâ€1, increases gamma1 AMPKassociated activity, but not gamma3 AMPKâ€associated activity or glucose transport. FASEB Journal, 2013, 27, 1169.3.	0.5	0