Anna Krook

List of Publications by Year
in descending order

125 papers	10,378 citations	30047 54 h-index	34964 98 g-index
133 all docs	133 docs citations	133 times ranked	14532 citing authors

#	Article	IF	Citations
1	Acute Exercise Remodels Promoter Methylation in Human Skeletal Muscle. Cell Metabolism, 2012, 15, 405-411.	7.2	729
2	Skeletal Muscle PGC-1Î±1 Modulates Kynurenine Metabolism and Mediates Resilience to Stress-Induced Depression. Cell, 2014, 159, 33-45.	13.5	581
3	Non-CpG Methylation of the PGC-1Î± Promoter through DNMT3B Controls Mitochondrial Density. Cell Metabolism, 2009, 10, 189-198.	7.2	530
4	TXNIP Regulates Peripheral Glucose Metabolism in Humans. PLoS Medicine, 2007, 4, e158.	3.9	435
5	Genetic Predisposition to an Impaired Metabolism of the Branched-Chain Amino Acids and Risk of Type 2 Diabetes: A Mendelian Randomisation Analysis. PLoS Medicine, 2016, 13, e1002179.	3.9	324
6	High-fat diet reprograms the epigenome of rat spermatozoa and transgenerationally affects metabolism of the offspring. Molecular Metabolism, 2016, 5, 184-197.	3.0	317
7	Insulin-Stimulated Phosphorylation of the Akt Substrate AS160 Is Impaired in Skeletal Muscle of Type 2 Diabetic Subjects. Diabetes, 2005, 54, 1692-1697.	0.3	241
8	Weight Loss after Gastric Bypass Surgery in Human Obesity Remodels Promoter Methylation. Cell Reports, 2013, 3, 1020-1027.	2.9	236
9	Transcriptomic profiling of skeletal muscle adaptations to exercise and inactivity. Nature Communications, 2020, 11, 470.	5.8	235
10	Impaired Processing of Prohormones Associated with Abnormalities of Glucose Homeostasis and Adrenal Function. New England Journal of Medicine, 1995, 333, 1386-1391.	13.9	233
11	Divergent effects of exercise on metabolic and mitogenic signaling pathways in human skeletal muscle. FASEB Journal, 1998, 12, 1379-1389.	0.2	209
12	Signaling Specificity of Interleukin-6 Action on Glucose and Lipid Metabolism in Skeletal Muscle. Molecular Endocrinology, 2006, 20, 3364-3375.	3.7	206
13	Regulation of Skeletal Muscle Physiology and Metabolism by Peroxisome Proliferator-Activated Receptor Î´. Pharmacological Reviews, 2009, 61, 373-393.	7.1	197
14	Downregulation of Diacylglycerol Kinase Delta Contributes to Hyperglycemia-Induced Insulin Resistance. Cell, 2008, 132, 375-386.	13.5	194
15	Direct effects of FGF21 on glucose uptake in human skeletal muscle: implications for type 2 diabetes and obesity. Diabetes/Metabolism Research and Reviews, 2011, 27, 286-297.	1.7	187
16	siRNA-based gene silencing reveals specialized roles of IRS-1/Akt2 and IRS-2/Akt1 in glucose and lipid metabolism in human skeletal muscle. Cell Metabolism, 2006, 4, 89-96.	7.2	180
17	Interleukin-6 Directly Increases Glucose Metabolism in Resting Human Skeletal Muscle. Diabetes, 2007, 56, 1630-1637.	0.3	166
18	Role of AMP Kinase and PPARÎ´ in the Regulation of Lipid and Glucose Metabolism in Human Skeletal Muscle. Journal of Biological Chemistry, 2007, 282, 19313-19320.	1.6	157

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19	Altered miR-29 Expression in Type 2 Diabetes Influences Glucose and Lipid Metabolism in Skeletal Muscle. Diabetes, 2017, 66, 1807-1818.	0.3	157
20	Afternoon exercise is more efficacious than morning exercise at improving blood glucose levels in individuals with type 2 diabetes: a randomised crossover trial. Diabetologia, 2019, 62, 233-237.	2.9	152
21	Expression profiling of the Î³-subunit isoforms of AMP-activated protein kinase suggests a major role for Î³3 in white skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2004, 286, E194-E200.	1.8	151
22	Effect of Contraction on Mitogen-activated Protein Kinase Signal Transduction in Skeletal Muscle. Journal of Biological Chemistry, 2000, 275, 1457-1462.	1.6	137
23	Improved Glucose Tolerance Restores Insulin-Stimulated Akt Kinase Activity and Glucose Transport in Skeletal Muscle From Diabetic Goto-Kakizaki Rats. Diabetes, 1997, 46, 2110-2114.	0.3	130
24	Metabolic and mitogenic signal transduction in human skeletal muscle after intense cycling exercise. Journal of Physiology, 2003, 546, 327-335.	1.3	128
25	Glutamine Links Obesity to Inflammation in Human White Adipose Tissue. Cell Metabolism, 2020, 31, 375-390.e11.	7.2	128
26	Epigenetic flexibility in metabolic regulation: disease cause and prevention?. Trends in Cell Biology, 2013, 23, 203-209.	3.6	127
27	Sending the Signal: Molecular Mechanisms Regulating Glucose Uptake. Medicine and Science in Sports and Exercise, 2004, 36, 1212-1217.	0.2	125
28	Direct Activation of Glucose Transport in Primary Human Myotubes After Activation of Peroxisome Proliferator-Activated Receptor Â. Diabetes, 2005, 54, 1157-1163.	0.3	122
29	Altered DNA methylation of glycolytic and lipogenic genes in liver from obese and type 2 diabetic patients. Molecular Metabolism, 2016, 5, 171-183.	3.0	115
30	Autocrine role of interleukin-13 on skeletal muscle glucose metabolism in type 2 diabetic patients involves microRNA let-7. American Journal of Physiology - Endocrinology and Metabolism, 2013, 305, E1359-E1366.	1.8	105
31	Role of interleukinâ€6 signalling in glucose and lipid metabolism. Acta Physiologica, 2008, 192, 37-48.	1.8	101
32	Circulating Exosomal miR-20b-5p Is Elevated in Type 2 Diabetes and Could Impair Insulin Action in Human Skeletal Muscle. Diabetes, 2019, 68, 515-526.	0.3	99
33	Marathon running increases ERK1/2 and p38 MAP kinase signalling to downstream targets in human skeletal muscle. Journal of Physiology, 2001, 536, 273-282.	1.3	98
34	Low-intensity exercise increases skeletal muscle protein expression of PPARÎ´ and UCP3 in type 2 diabetic patients. Diabetes/Metabolism Research and Reviews, 2006, 22, 492-498.	1.7	97
35	Constitutive STAT3 Phosphorylation Contributes to Skeletal Muscle Insulin Resistance in Type 2 Diabetes. Diabetes, 2013, 62, 457-465.	0.3	95
36	Comparative profiling of skeletal muscle models reveals heterogeneity of transcriptome and metabolism. American Journal of Physiology - Cell Physiology, 2020, 318, C615-C626.	2.1	91

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37	Muscle fiber type specificity in insulin signal transduction. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 1999, 277, R1690-R1696.	0.9	87
38	ERK1/2 Mediates Insulin Stimulation of Na,K-ATPase by Phosphorylation of the Î±-Subunit in Human Skeletal Muscle Cells. Journal of Biological Chemistry, 2004, 279, 25211-25218.	1.6	83
39	Common Genetic Variation in the Human FNDC5 Locus, Encoding the Novel Muscle-Derived â€˜Browningâ€™ Factor Irisin, Determines Insulin Sensitivity. PLoS ONE, 2013, 8, e61903.	1.1	83
40	Effects of sleeping with reduced carbohydrate availability on acute training responses. Journal of Applied Physiology, 2015, 119, 643-655.	1.2	82
41	siRNA-Mediated Reduction of Inhibitor of Nuclear Factor-ÎºB Kinase Prevents Tumor Necrosis Factor-Î±â€“Induced Insulin Resistance in Human Skeletal Muscle. Diabetes, 2008, 57, 2066-2073.	0.3	80
42	Two Naturally Occurring Insulin Receptor Tyrosine Kinase Domain Mutants Provide Evidence That Phosphoinositide 3-Kinase Activation Alone Is Not Sufficient for the Mediation of Insulin's Metabolic and Mitogenic Effects. Journal of Biological Chemistry, 1997, 272, 30208-30214.	1.6	79
43	Mitochondrial regulators of fatty acid metabolism reflect metabolic dysfunction in type 2 diabetes mellitus. Metabolism: Clinical and Experimental, 2012, 61, 175-185.	1.5	79
44	Mutant insulin receptors in syndromes of insulin resistance. Bailliere's Clinical Endocrinology and Metabolism, 1996, 10, 97-122.	1.0	70
45	Malonyl CoenzymeA Decarboxylase Regulates Lipid and Glucose Metabolism in Human Skeletal Muscle. Diabetes, 2008, 57, 1508-1516.	0.3	69
46	A Cell-Autonomous Signature of Dysregulated Protein Phosphorylation Underlies Muscle Insulin Resistance in Type 2 Diabetes. Cell Metabolism, 2020, 32, 844-859.e5.	7.2	68
47	Transcriptional and Epigenetic Changes Influencing Skeletal Muscle Metabolism in Women With Polycystic Ovary Syndrome. Journal of Clinical Endocrinology and Metabolism, 2018, 103, 4465-4477.	1.8	66
48	Insulin action in skeletal muscle from patients with NIDDM. Molecular and Cellular Biochemistry, 1998, 182, 153-160.	1.4	65
49	Suppression of 5â€²-Nucleotidase Enzymes Promotes AMP-activated Protein Kinase (AMPK) Phosphorylation and Metabolism in Human and Mouse Skeletal Muscle. Journal of Biological Chemistry, 2011, 286, 34567-34574.	1.6	65
50	Altered promoter methylation of PDK4, IL1 B, IL6, and TNF after Roux-en Y gastric bypass. Surgery for Obesity and Related Diseases, 2014, 10, 671-678.	1.0	62
51	Relationship Between Serum Amyloid A Level and Tanis/SelS mRNA Expression in Skeletal Muscle and Adipose Tissue From Healthy and Type 2 Diabetic Subjects. Diabetes, 2004, 53, 1424-1428.	0.3	61
52	Genetic Defects in Human Pericentrin Are Associated With Severe Insulin Resistance and Diabetes. Diabetes, 2011, 60, 925-935.	0.3	61
53	Exercise-associated differences in an array of proteins involved in signal transduction and glucose transport. Journal of Applied Physiology, 2001, 90, 29-34.	1.2	55
54	Insulin Signalling and Resistance in Patients with Chronic Heart Failure. Journal of Physiology, 2003, 550, 305-315.	1.3	55

#	Article	IF	Citations
55	MEF2 activation in differentiated primary human skeletal muscle cultures requires coordinated involvement of parallel pathways. American Journal of Physiology - Cell Physiology, 2004, 286, C1410-C1416.	2.1	55
56	Chloroquine Extends the Lifetime of the Activated Insulin Receptor Complex in Endosomes. Journal of Biological Chemistry, 1997, 272, 26833-26840.	1.6	54
57	Exercise and the Treatment of Diabetes and Obesity. Endocrinology and Metabolism Clinics of North America, 2008, 37, 887-903.	1.2	51
58	Altered Response of Skeletal Muscle to IL-6 in Type 2 Diabetic Patients. Diabetes, 2013, 62, 355-361.	0.3	51
59	Two Naturally Occurring Mutant Insulin Receptors Phosphorylate Insulin Receptor Substrate-1 (IRS-1) but Fail to Mediate the Biological Effects of Insulin. Journal of Biological Chemistry, 1996, 271, 7134-7140.	1.6	49
60	Endurance training increases stimulation of uncoupling of skeletal muscle mitochondria in humans by non-esterified fatty acids: an uncoupling-protein-mediated effect?. Biochemical Journal, 2000, 351, 805-810.	1.7	49
61	The ZBED6â€“IGF2 axis has a major effect on growth of skeletal muscle and internal organs in placental mammals. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2048-E2057.	3.3	48
62	Effects of Nordic walking on cardiovascular risk factors in overweight individuals with type 2 diabetes, impaired or normal glucose tolerance. Diabetes/Metabolism Research and Reviews, 2013, 29, 25-32.	1.7	47
63	Disrupted circadian oscillations in type 2 diabetes are linked to altered rhythmic mitochondrial metabolism in skeletal muscle. Science Advances, 2021, 7, eabi9654.	4.7	44
64	Reduction of risk factors following lifestyle modification programme in subjects with type 2 (non-insulin dependent) diabetes mellitus. Clinical Physiology and Functional Imaging, 2003, 23, 21-30.	0.5	41
65	Endothelin-1 Reduces Glucose Uptake in Human Skeletal Muscle In Vivo and In Vitro. Diabetes, 2011, 60, 2061-2067.	0.3	41
66	Direct effects of exercise on kynurenine metabolism in people with normal glucose tolerance or type 2 diabetes. Diabetes/Metabolism Research and Reviews, 2016, 32, 754-761.	1.7	39
67	The influence of culture media upon observed cell secretome metabolite profiles: The balance between cell viability and data interpretability. Analytica Chimica Acta, 2018, 1037, 338-350.	2.6	38
68	Regulation of glucose uptake and inflammation markers by FOXO1 and FOXO3 in skeletal muscle. Molecular Metabolism, 2019, 20, 79-88.	3.0	37
69	Effects of exercise on mitogen- and stress-activated kinase signal transduction in human skeletal muscle. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2000, 279, R1716-R1721.	0.9	36
70	Regulation of Glucose Uptake by Endothelin-1 in Human Skeletal Musclein Vivoandin Vitro. Journal of Clinical Endocrinology and Metabolism, 2010, 95, 2359-2366.	1.8	35
71	Changes in Gene Expression in Responders and Nonresponders to a Low-Intensity Walking Intervention. Diabetes Care, 2015, 38, 1154-1160.	4.3	34
72	Exercise and the Treatment of Diabetes and Obesity. Medical Clinics of North America, 2011, 95, 953-969.	1.1	33

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73	microManaging glucose and lipid metabolism in skeletal muscle: Role of microRNAs. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 2130-2138.	1.2	33
74	Exercise in vivo marks human myotubes in vitro: Training-induced increase in lipid metabolism. PLoS ONE, 2017, 12, e0175441.	1.1	32
75	Innate immune receptors in skeletal muscle metabolism. Experimental Cell Research, 2017, 360, 47-54.	1.2	29
76	Insulin and Glucose Alter Death-Associated Protein Kinase 3 (DAPK3) DNA Methylation in Human Skeletal Muscle. Diabetes, 2017, 66, 651-662.	0.3	28
77	RNA interference-mediated reduction in GLUT1 inhibits serum-induced glucose transport in primary human skeletal muscle cells. Biochemical and Biophysical Research Communications, 2003, 307, 127-132.	1.0	26
78	Prior serum- and AICAR-induced AMPK activation in primary human myocytes does not lead to subsequent increase in insulin-stimulated glucose uptake. American Journal of Physiology - Endocrinology and Metabolism, 2004, 287, E553-E557.	1.8	26
79	miRNA let-7 expression is regulated by glucose and TNF-Î± by a remote upstream promoter. Biochemical Journal, 2015, 472, 147-156.	1.7	26
80	Arginase inhibition reduces infarct size via nitric oxide, protein kinase C epsilon and mitochondrial ATP-dependent K+ channels. European Journal of Pharmacology, 2013, 712, 16-21.	1.7	25
81	Secreted protein acidic and rich in cysteine (SPARC) improves glucose toleranceviaAMPâ€activated protein kinase activation. FASEB Journal, 2019, 33, 10551-10562.	0.2	25
82	IL6 and LIF mRNA expression in skeletal muscle is regulated by AMPK and the transcription factors NFYC, ZBTB14, and SP1. American Journal of Physiology - Endocrinology and Metabolism, 2018, 315, E995-E1004.	1.8	23
83	Glucocorticoidâ€mediated effects on metabolism are reversed by targeting 11 beta hydroxysteroid dehydrogenase type 1 in human skeletal muscle. Diabetes/Metabolism Research and Reviews, 2009, 25, 250-258.	1.7	22
84	Differential expression of metabolic genes essential for glucose and lipid metabolism in skeletal muscle from spinal cord injured subjects. Journal of Applied Physiology, 2011, 110, 1204-1210.	1.2	21
85	TWIST1 and TWIST2 regulate glycogen storage and inflammatory genes in skeletal muscle. Journal of Endocrinology, 2015, 224, 303-313.	1.2	21
86	Impaired phosphocreatine metabolism in white adipocytes promotes inflammation. Nature Metabolism, 2022, 4, 190-202.	5.1	21
87	FAK tyrosine phosphorylation is regulated by AMPK and controls metabolism in human skeletal muscle. Diabetologia, 2018, 61, 424-432.	2.9	20
88	Influence of obesity, weight loss, and free fatty acids on skeletal muscle clock gene expression. American Journal of Physiology - Endocrinology and Metabolism, 2020, 318, E1-E10.	1.8	20
89	Branched-chain amino acid metabolism is regulated by ERRÎ± in primary human myotubes and is further impaired by glucose loading in type 2 diabetes. Diabetologia, 2021, 64, 2077-2091.	2.9	20
90	Endurance exercise training-responsive miR-19b-3p improves skeletal muscle glucose metabolism. Nature Communications, 2021, 12, 5948.	5.8	20

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91	Altered content of AMP-activated protein kinase isoforms in skeletal muscle from spinal cord injured subjects. American Journal of Physiology - Endocrinology and Metabolism, 2013, 305, E1071-E1080.	1.8	19
92	Strenuous physical exercise adversely affects monocyte chemotaxis. Thrombosis and Haemostasis, 2011, 105, 122-130.	1.8	17
93	AMPK activation negatively regulates GDAP1, which influences metabolic processes and circadian gene expression in skeletal muscle. Molecular Metabolism, 2018, 16, 12-23.	3.0	17
94	Temporal analysis of reciprocal miRNA-mRNA expression patterns predicts regulatory networks during differentiation in human skeletal muscle cells. Physiological Genomics, 2015, 47, 45-57.	1.0	16
95	Discovery of thymosin Î²4 as a human exerkine and growth factor. American Journal of Physiology - Cell Physiology, 2021, 321, C770-C778.	2.1	16
96	Endurance training increases stimulation of uncoupling of skeletal muscle mitochondria in humans by non-esterified fatty acids: an uncoupling-protein-mediated effect?. Biochemical Journal, 2000, 351, 805.	1.7	15
97	Modified UCN2 Peptide Acts as an Insulin Sensitizer in Skeletal Muscle of Obese Mice. Diabetes, 2019, 68, 1403-1414.	0.3	15
98	Paternal highâ€fat diet transgenerationally impacts hepatic immunometabolism. FASEB Journal, 2019, 33, 6269-6280.	0.2	15
99	Effect of Serum Replacement with Plysate on Cell Growth and Metabolismin Primary Cultures of Human Skeletal Muscle. Cytotechnology, 2005, 48, 89-95.	0.7	14
100	Diurnal Regulation of Peripheral Glucose Metabolism: Potential Effects of Exercise Timing. Obesity, 2020, 28, S38-S45.	1.5	14
101	Glutamine Regulates Skeletal Muscle Immunometabolism in Type 2 Diabetes. Diabetes, 2022, 71, 624-636.	0.3	14
102	Targeting adipose tissue angiogenesis to enhance insulin sensitivity. Diabetologia, 2012, 55, 2562-2564.	2.9	13
103	Electroacupuncture Mimics Exercise-Induced Changes in Skeletal Muscle Gene Expression in Women With Polycystic Ovary Syndrome. Journal of Clinical Endocrinology and Metabolism, 2020, 105, 2027-2041.	1.8	13
104	Three weeks of interrupting sitting lowers fasting glucose and glycemic variability, but not glucose tolerance, in free-living women and men with obesity. American Journal of Physiology - Endocrinology and Metabolism, 2021, 321, E203-E216.	1.8	13
105	IL-6 and metabolismâ€"new evidence and new questions. Diabetologia, 2008, 51, 1097-1099.	2.9	12
106	Influence of physical activity and gender on arterial function in type 2 diabetes, normal and impaired glucose tolerance. Diabetes and Vascular Disease Research, 2015, 12, 315-324.	0.9	12
107	Grandpaternal-induced transgenerational dietary reprogramming of the unfolded protein response in skeletal muscle. Molecular Metabolism, 2017, 6, 621-630.	3.0	12
108	Gene expression of the p85Î± regulatory subunit of phosphatidylinositol 3-kinase in skeletal muscle from type 2 diabetic subjects. Pflugers Archiv European Journal of Physiology, 2002, 445, 25-31.	1.3	10

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109	Phosphorylation of the Na⁺,K⁺â€ATPase in Skeletal Muscle. Annals of the New York Academy of Sciences, 2003, 986, 449-452.	1.8	9
110	Can the liver X receptor work its magic in skeletal muscle too?. Diabetologia, 2006, 49, 819-821.	2.9	9
111	Enhanced glucose metabolism in cultured human skeletal muscle after Roux-en-Y gastric bypass surgery. Surgery for Obesity and Related Diseases, 2015, 11, 592-601.	1.0	9
112	Adiposity Is a Key Correlate of Circulating Fibroblast Growth Factor-21 Levels in African Males with or without Type 2 Diabetes Mellitus. Journal of Obesity, 2018, 2018, 1-8.	1.1	9
113	Skeletal Muscle microRNAs: Roles in Differentiation, Disease and Exercise. Research and Perspectives in Endocrine Interactions, 2017, , 67-81.	0.2	9
114	Evidence against high glucose as a mediator of ERK1/2 or p38 MAPK phosphorylation in rat skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2001, 281, E1255-E1259.	1.8	8
115	Lowering apolipoprotein CIII protects against high-fat dietâ€“induced metabolic derangements. Science Advances, 2021, 7, .	4.7	8
116	Specificity of insulin signalling in human skeletal muscle as revealed by small interfering RNA. Diabetologia, 2009, 52, 1231-1239.	2.9	7
117	One step forward for exercise. Nature Reviews Endocrinology, 2016, 12, 7-8.	4.3	7
118	Retained differentiation capacity of human skeletal muscle satellite cells from spinal cord-injured individuals. Physiological Reports, 2018, 6, e13739.	0.7	5
119	Changes in Vitamin D Status in Overweight Middle-Aged Adults with or without Impaired Glucose Metabolism in Two Consecutive Nordic Summers. Journal of Nutrition and Metabolism, 2019, 2019, 1-8.	0.7	5
120	Quantitative phosphoproteomic analysis of IRS1 in skeletal muscle from men with normal glucose tolerance or type 2 diabetes: A case-control study. Metabolism: Clinical and Experimental, 2021, 118, 154726.	1.5	5
121	A balancing act of optimising insulin dose and insulin sensitivity in type 1 diabetes. Journal of Endocrinology, 2011, 211, 1-2.	1.2	3
122	ContRac1ion-Mediated Glucose Uptake: A Central Role for Rac1. Diabetes, 2013, 62, 1024-1025.	0.3	3
123	Maternal obesity legacy: exercise it away!. Diabetologia, 2016, 59, 5-8.	2.9	3
124	Skeletal muscle AMP kinase as a target to prevent pathogenesis of Type 2 diabetes. Expert Review of Endocrinology and Metabolism, 2007, 2, 477-485.	1.2	1
125	Time to Look Back and to Look Forward. Diabetes, 2014, 63, 1169-1170.	0.3	0