Bente Kiens

List of Publications by Citations

133 papers	9,885 citations	57 h-index	97 g-index
141 ext. papers	11,185 ext. citations	6.7 avg, IF	6.09 L-index

#	Paper	IF	Citations
133	Skeletal muscle lipid metabolism in exercise and insulin resistance. *Physiological Reviews*, **2006**, 86, 205-43	17.9	343
132	Isoform-specific and exercise intensity-dependent activation of 5′AMP-activated protein kinase in human skeletal muscle. *Journal of Physiology*, **2000**, 528 Pt 1, 221-6	3.9	327
131	Skeletal muscle substrate utilization during submaximal exercise in man: effect of endurance training. *Journal of Physiology*, **1993**, 469, 459-78	3.9	317
130	AMP-activated protein kinase (AMPK) beta1beta2 muscle null mice reveal an essential role for AMPK in maintaining mitochondrial content and glucose uptake during exercise. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 16092-7	11.5	313
129	Effect of exercise on insulin action in human skeletal muscle. *Journal of Applied Physiology*, **1989**, 66, 876-85	3.7	291
128	Insulin signaling and insulin sensitivity after exercise in human skeletal muscle. *Diabetes*, **2000**, 49, 325-31	10.9	290
127	Extracellular Vesicles Provide a Means for Tissue Crosstalk during Exercise. *Cell Metabolism*, **2018**, 27, 237-251.e4	24.6	257
126	Carbohydrates and fat for training and recovery. *Journal of Sports Sciences*, **2004**, 22, 15-30	3.6	254
125	Regulation of 5′AMP-activated protein kinase activity and substrate utilization in exercising human skeletal muscle. *American Journal of Physiology - Endocrinology and Metabolism*, **2003**, 284, E813-22	6	242
124	Global Phosphoproteomic Analysis of Human Skeletal Muscle Reveals a Network of Exercise-Regulated Kinases and AMPK Substrates. *Cell Metabolism*, **2015**, 22, 922-35	24.6	233
123	Energy availability in athletes. *Journal of Sports Sciences*, **2011**, 29 Suppl 1, S7-15	3.6	218
122	Acute exercise improves motor memory: exploring potential biomarkers. *Neurobiology of Learning and Memory*, **2014**, 116, 46-58	3.1	193
121	Early enhancements of hepatic and later of peripheral insulin sensitivity combined with increased postprandial insulin secretion contribute to improved glycemic control after Roux-en-Y gastric bypass. *Diabetes*, **2014**, 63, 1725-37	0.9	192
120	Gender differences in substrate utilization during submaximal exercise in endurance-trained subjects. *American Journal of Physiology - Endocrinology and Metabolism*, **2002**, 282, E435-47	6	172
119	Lipoprotein metabolism influenced by training-induced changes in human skeletal muscle. *Journal of Clinical Investigation*, **1989**, 83, 558-64	15.9	162
118	Insulin signaling in human skeletal muscle: time course and effect of exercise. *Diabetes*, **1997**, 46, 1775-81	10.9	161
117	Myocellular triacylglycerol breakdown in females but not in males during exercise. *American Journal of Physiology - Endocrinology and Metabolism*, **2002**, 282, E634-42	6	160

116	Ca2+-calmodulin-dependent protein kinase expression and signalling in skeletal muscle during exercise. *Journal of Physiology*, **2006**, 574, 889-903	3.9	159
115	Types of carbohydrate in an ordinary diet affect insulin action and muscle substrates in humans. *American Journal of Clinical Nutrition*, **1996**, 63, 47-53	7	149
114	Caffeine ingestion does not alter carbohydrate or fat metabolism in human skeletal muscle during exercise. *Journal of Physiology*, **2000**, 529 Pt 3, 837-47	3.9	144
113	Effects of endurance exercise training on insulin signaling in human skeletal muscle: interactions at the level of phosphatidylinositol 3-kinase, Akt, and AS160. *Diabetes*, **2007**, 56, 2093-102	0.9	137
112	Effects of insulin and exercise on muscle lipoprotein lipase activity in man and its relation to insulin action. *Journal of Clinical Investigation*, **1989**, 84, 1124-9	15.9	134
111	Caffeine-induced impairment of insulin action but not insulin signaling in human skeletal muscle is reduced by exercise. *Diabetes*, **2002**, 51, 583-90	0.9	133
110	Utilization of skeletal muscle triacylglycerol during postexercise recovery in humans. *American Journal of Physiology - Endocrinology and Metabolism*, **1998**, 275, E332-7	6	132
109	Rac1 signaling is required for insulin-stimulated glucose uptake and is dysregulated in insulin-resistant murine and human skeletal muscle. *Diabetes*, **2013**, 62, 1865-75	0.9	128
108	. *Journal of Physiology*, **2001**, 537, 1009-1020	3.9	127
107	Higher skeletal muscle alpha2AMPK activation and lower energy charge and fat oxidation in men than in women during submaximal exercise. *Journal of Physiology*, **2006**, 574, 125-38	3.9	125
106	Malonyl-CoA and carnitine in regulation of fat oxidation in human skeletal muscle during exercise. *American Journal of Physiology - Endocrinology and Metabolism*, **2005**, 288, E133-42	6	123
105	Increased plasma HDL-cholesterol and apo A-1 in sedentary middle-aged men after physical conditioning. *European Journal of Clinical Investigation*, **1980**, 10, 203-9	4.6	123
104	Lipoprotein lipase activity and intramuscular triglyceride stores after long-term high-fat and high-carbohydrate diets in physically trained men. *Clinical Physiology*, **1987**, 7, 1-9		119
103	Membrane associated fatty acid binding protein (FABPpm) in human skeletal muscle is increased by endurance training. *Biochemical and Biophysical Research Communications*, **1997**, 231, 463-5	3.4	117
102	Gender differences in skeletal muscle substrate metabolism - molecular mechanisms and insulin sensitivity. *Frontiers in Endocrinology*, **2014**, 5, 195	5.7	115
101	Is peak quadriceps blood flow in humans even higher during exercise with hypoxemia?. *American Journal of Physiology - Heart and Circulatory Physiology*, **1986**, 251, H1038-44	5.2	115
100	Interaction of training and diet on metabolism and endurance during exercise in man. *Journal of Physiology*, **1996**, 492 (Pt 1), 293-306	3.9	112
99	Lipid-binding proteins and lipoprotein lipase activity in human skeletal muscle: influence of physical activity and gender. *Journal of Applied Physiology*, **2004**, 97, 1209-18	3.7	108

98	Exercise diminishes the activity of acetyl-CoA carboxylase in human muscle. *Diabetes*, **2000**, 49, 1295-300	0.9	103
97	Increased plasma FFA uptake and oxidation during prolonged exercise in trained vs. untrained humans. *American Journal of Physiology - Endocrinology and Metabolism*, **1992**, 262, E791-9	6	103
96	Adipose triglyceride lipase in human skeletal muscle is upregulated by exercise training. *American Journal of Physiology - Endocrinology and Metabolism*, **2009**, 296, E445-53	6	102
95	Exercise Increases Human Skeletal Muscle Insulin Sensitivity via Coordinated Increases in Microvascular Perfusion and Molecular Signaling. *Diabetes*, **2017**, 66, 1501-1510	0.9	96
94	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	0.9	96
93	Potential role of TBC1D4 in enhanced post-exercise insulin action in human skeletal muscle. *Diabetologia*, **2009**, 52, 891-900	10.3	92
92	A liver stress-endocrine nexus promotes metabolic integrity during dietary protein dilution. *Journal of Clinical Investigation*, **2016**, 126, 3263-78	15.9	91
91	Influence of active muscle mass on glucose homeostasis during exercise in humans. *Journal of Applied Physiology*, **1991**, 71, 552-7	3.7	90
90	Response to Comment on: Hoeg et al. 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. *Diabetes*, **2011**, 60, e24-e24	0.9	78
89	Exercise alleviates lipid-induced insulin resistance in human skeletal muscle-signaling interaction at the level of TBC1 domain family member 4. *Diabetes*, **2012**, 61, 2743-52	0.9	78
88	Sex differences in hormone-sensitive lipase expression, activity, and phosphorylation in skeletal muscle at rest and during exercise. *American Journal of Physiology - Endocrinology and Metabolism*, **2006**, 291, E1106-14	6	74
87	Regulation of hormone-sensitive lipase activity and Ser563 and Ser565 phosphorylation in human skeletal muscle during exercise. *Journal of Physiology*, **2004**, 560, 551-62	3.9	74
86	Exercise increases circulating GDF15 in humans. *Molecular Metabolism*, **2018**, 9, 187-191	8.8	68
85	Regulation of glycogen synthase kinase-3 in human skeletal muscle: effects of food intake and bicycle exercise. *Diabetes*, **2001**, 50, 265-9	0.9	68
84	Molecular Regulation of Fatty Acid Oxidation in Skeletal Muscle during Aerobic Exercise. *Trends in Endocrinology and Metabolism*, **2018**, 29, 18-30	8.8	68
83	Eccentric exercise decreases maximal insulin action in humans: muscle and systemic effects. *Journal of Physiology*, **1996**, 494 (Pt 3), 891-8	3.9	67
82	Insulin action in human thighs after one-legged immobilization. *Journal of Applied Physiology*, **1989**, 67, 19-23	3.7	65
81	Circulating FGF21 in humans is potently induced by short term overfeeding of carbohydrates. *Molecular Metabolism*, **2017**, 6, 22-29	8.8	64

80	A new method to study changes in microvascular blood volume in muscle and adipose tissue: real-time imaging in humans and rat. *American Journal of Physiology - Heart and Circulatory Physiology*, **2011**, 301, H450-8	5.2	61
79	Contraction-induced skeletal muscle FAT/CD36 trafficking and FA uptake is AMPK independent. *Journal of Lipid Research*, **2011**, 52, 699-711	6.3	59
78	Acute mTOR inhibition induces insulin resistance and alters substrate utilization in vivo. *Molecular Metabolism*, **2014**, 3, 630-41	8.8	57
77	Regulation of autophagy in human skeletal muscle: effects of exercise, exercise training and insulin stimulation. *Journal of Physiology*, **2016**, 594, 745-61	3.9	57
76	Glucose uptake is increased in trained vs. untrained muscle during heavy exercise. *Journal of Applied Physiology*, **2000**, 89, 1151-8	3.7	56
75	Impact of a fat-rich diet on endurance in man: role of the dietary period. *Medicine and Science in Sports and Exercise*, **1998**, 30, 456-61	1.2	56
74	AMPK is critical for enhancing skeletal muscle fatty acid utilization during in vivo exercise in mice. *FASEB Journal*, **2015**, 29, 1725-38	0.9	55
73	LKB1 regulates lipid oxidation during exercise independently of AMPK. *Diabetes*, **2013**, 62, 1490-9	0.9	54
72	Higher intramuscular triacylglycerol in women does not impair insulin sensitivity and proximal insulin signaling. *Journal of Applied Physiology*, **2009**, 107, 824-31	3.7	53
71	Fatty acid transporters (FABPpm, FAT, FATP) in human muscle. *Applied Physiology, Nutrition, and Metabolism*, **1999**, 24, 515-23		52
70	Hepatic Insulin Clearance in Regulation of Systemic Insulin Concentrations-Role of Carbohydrate and Energy Availability. *Diabetes*, **2018**, 67, 2129-2136	0.9	50
69	Role of AMPK in regulation of LC3 lipidation as a marker of autophagy in skeletal muscle. *Cellular Signalling*, **2016**, 28, 663-74	4.9	45
68	Repletion of branched chain amino acids reverses mTORC1 signaling but not improved metabolism during dietary protein dilution. *Molecular Metabolism*, **2017**, 6, 873-881	8.8	42
67	GLP-1 increases microvascular recruitment but not glucose uptake in human and rat skeletal muscle. *American Journal of Physiology - Endocrinology and Metabolism*, **2014**, 306, E355-62	6	40
66	Enhanced insulin signaling in human skeletal muscle and adipose tissue following gastric bypass surgery. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2015**, 309, R510-24	3.2	39
65	Enhanced fatty acid oxidation and FATP4 protein expression after endurance exercise training in human skeletal muscle. *PLoS ONE*, **2012**, 7, e29391	3.7	39
64	Analysis of the liver lipidome reveals insights into the protective effect of exercise on high-fat diet-induced hepatosteatosis in mice. *American Journal of Physiology - Endocrinology and Metabolism*, **2015**, 308, E778-91	6	37
63	mTORC2 and AMPK differentially regulate muscle triglyceride content via Perilipin 3. *Molecular Metabolism*, **2016**, 5, 646-655	8.8	37

62	Opposite Regulation of Insulin Sensitivity by Dietary Lipid Versus Carbohydrate Excess. *Diabetes*, **2017**, 66, 2583-2595	0.9	37
61	Studies of plasma membrane fatty acid-binding protein and other lipid-binding proteins in human skeletal muscle. *Proceedings of the Nutrition Society*, **2004**, 63, 239-44	2.9	37
60	pH-Gated Succinate Secretion Regulates Muscle Remodeling in Response to Exercise. *Cell*, **2020**, 183, 62-75.e17	56.2	37
59	FFAR4 (GPR120) Signaling Is Not Required for Anti-Inflammatory and Insulin-Sensitizing Effects of Omega-3 Fatty Acids. *Mediators of Inflammation*, **2016**, 2016, 1536047	4.3	36
58	New Nordic Diet-Induced Weight Loss Is Accompanied by Changes in Metabolism and AMPK Signaling in Adipose Tissue. *Journal of Clinical Endocrinology and Metabolism*, **2015**, 100, 3509-19	5.6	33
57	Exercise improves phosphatidylinositol-3,4,5-trisphosphate responsiveness of atypical protein kinase C and interacts with insulin signalling to peptide elongation in human skeletal muscle. *Journal of Physiology*, **2007**, 582, 1289-301	3.9	33
56	Multiplexed Temporal Quantification of the Exercise-regulated Plasma Peptidome. *Molecular and Cellular Proteomics*, **2017**, 16, 2055-2068	7.6	32
55	Exercise-induced molecular mechanisms promoting glycogen supercompensation in human skeletal muscle. *Molecular Metabolism*, **2018**, 16, 24-34	8.8	32
54	Contraction-induced lipolysis is not impaired by inhibition of hormone-sensitive lipase in skeletal muscle. *Journal of Physiology*, **2013**, 591, 5141-55	3.9	31
53	Factors regulating fat oxidation in human skeletal muscle. *Obesity Reviews*, **2011**, 12, 852-8	10.6	31
52	Exercise training reduces the insulin-sensitizing effect of a single bout of exercise in human skeletal muscle. *Journal of Physiology*, **2019**, 597, 89-103	3.9	31
51	Molecular Mechanisms in Skeletal Muscle Underlying Insulin Resistance in Women Who Are Lean With Polycystic Ovary Syndrome. *Journal of Clinical Endocrinology and Metabolism*, **2019**, 104, 1841-1854	5.6	30
50	FGF21 does not require adipocyte AMP-activated protein kinase (AMPK) or the phosphorylation of acetyl-CoA carboxylase (ACC) to mediate improvements in whole-body glucose homeostasis. *Molecular Metabolism*, **2017**, 6, 471-481	8.8	29
49	Mechanisms Preserving Insulin Action during High Dietary Fat Intake. *Cell Metabolism*, **2019**, 29, 50-63.e4	24.6	29
48	Tuning fatty acid oxidation in skeletal muscle with dietary fat and exercise. *Nature Reviews Endocrinology*, **2020**, 16, 683-696	15.2	28
47	Restriction of essential amino acids dictates the systemic metabolic response to dietary protein dilution. *Nature Communications*, **2020**, 11, 2894	17.4	27
46	5RAMP activated protein kinase 2 controls substrate metabolism during post-exercise recovery via regulation of pyruvate dehydrogenase kinase4. *Journal of Physiology*, **2015**, 593, 4765-80	3.9	27
45	Adiponectin concentration is associated with muscle insulin sensitivity, AMPK phosphorylation, and ceramide content in skeletal muscles of men but not women. *Journal of Applied Physiology*, **2013**, 114, 592-601	3.7	27

44	Deep muscle-proteomic analysis of freeze-dried human muscle biopsies reveals fiber type-specific adaptations to exercise training. *Nature Communications*, **2021**, 12, 304	17.4	26
43	Endurance in high-fat-fed rats: effects of carbohydrate content and fatty acid profile. *Journal of Applied Physiology*, **1998**, 85, 1342-8	3.7	25
42	Regulation of exercise-induced lipid metabolism in skeletal muscle. *Experimental Physiology*, **2014**, 99, 1586-92	2.4	24
41	FAT/CD36 is localized in sarcolemma and in vesicle-like structures in subsarcolemma regions but not in mitochondria. *Journal of Lipid Research*, **2010**, 51, 1504-12	6.3	24
40	Pharmacological but not physiological GDF15 suppresses feeding and the motivation to exercise. *Nature Communications*, **2021**, 12, 1041	17.4	23
39	Near-normalization of glycaemic control with glucagon-like peptide-1 receptor agonist treatment combined with exercise in patients with type 2 diabetes. *Diabetes, Obesity and Metabolism*, **2017**, 19, 172-180	6.7	21
38	AMPK and insulin action--responses to ageing and high fat diet. *PLoS ONE*, **2013**, 8, e62338	3.7	21
37	Insulin-induced membrane permeability to glucose in human muscles at rest and following exercise. *Journal of Physiology*, **2020**, 598, 303-315	3.9	21
36	Differential effects of glucagon-like peptide-1 on microvascular recruitment and glucose metabolism in short- and long-term insulin resistance. *Journal of Physiology*, **2015**, 593, 2185-98	3.9	18
35	The Importance of Fatty Acids as Nutrients during Post-Exercise Recovery. *Nutrients*, **2020**, 12,	6.7	18
34	Partial Disruption of Lipolysis Increases Postexercise Insulin Sensitivity in Skeletal Muscle Despite Accumulation of DAG. *Diabetes*, **2016**, 65, 2932-42	0.9	18
33	Effect of high-fat diets on exercise performance. *Proceedings of the Nutrition Society*, **1998**, 57, 73-5	2.9	17
32	Dietary fat drives whole-body insulin resistance and promotes intestinal inflammation independent of body weight gain. *Metabolism: Clinical and Experimental*, **2016**, 65, 1706-1719	12.7	17
31	Glucometabolic consequences of acute and prolonged inhibition of fatty acid oxidation. *Journal of Lipid Research*, **2020**, 61, 10-19	6.3	15
30	Glycogen concentration in human skeletal muscle: effect of prolonged insulin and glucose infusion. *Scandinavian Journal of Medicine and Science in Sports*, **1999**, 9, 209-13	4.6	13
29	Effect of bariatric surgery on plasma GDF15 in humans. *American Journal of Physiology - Endocrinology and Metabolism*, **2019**, 316, E615-E621	6	13
28	Dietary Fuels in Athletic Performance. *Annual Review of Nutrition*, **2019**, 39, 45-73	9.9	12
27	Human Paneth cell □defensin-5 treatment reverses dyslipidemia and improves glucoregulatory capacity in diet-induced obese mice. *American Journal of Physiology - Endocrinology and Metabolism*, **2019**, 317, E42-E52	6	12

26	Prior exercise in humans redistributes intramuscular GLUT4 and enhances insulin-stimulated sarcolemmal and endosomal GLUT4 translocation. *Molecular Metabolism*, **2020**, 39, 100998	8.8	12
25	Utilization of long-chain fatty acids in human skeletal muscle during exercise. *Acta Physiologica Scandinavica*, **2003**, 178, 391-6		12
24	Adaptations in Mitochondrial Enzymatic Activity Occurs Independent of Genomic Dosage in Response to Aerobic Exercise Training and Deconditioning in Human Skeletal Muscle. *Cells*, **2019**, 8,	7.9	11
23	Cancer causes metabolic perturbations associated with reduced insulin-stimulated glucose uptake in peripheral tissues and impaired muscle microvascular perfusion. *Metabolism: Clinical and Experimental*, **2020**, 105, 154169	12.7	11
22	Contractions but not AICAR increase FABPpm content in rat muscle sarcolemma. *Molecular and Cellular Biochemistry*, **2009**, 326, 45-53	4.2	11
21	Partial restoration of dietary fat induced metabolic adaptations to training by 7 days of carbohydrate diet. *Journal of Applied Physiology*, **2002**, 93, 1797-805	3.7	11
20	ADAMTS9 Regulates Skeletal Muscle Insulin Sensitivity Through Extracellular Matrix Alterations. *Diabetes*, **2019**, 68, 502-514	0.9	11
19	Quantification of exercise-regulated ubiquitin signaling in human skeletal muscle identifies protein modification cross talk via NEDDylation. *FASEB Journal*, **2020**, 34, 5906-5916	0.9	10
18	Thyroid hormone receptor in skeletal muscle is essential for T3-mediated increase in energy expenditure. *FASEB Journal*, **2020**, 34, 15480-15491	0.9	10
17	ApoA-1 improves glucose tolerance by increasing glucose uptake into heart and skeletal muscle independently of AMPK *Molecular Metabolism*, **2020**, 35, 100949	8.8	10
16	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	0.9	9
15	Insulin sensitivity is independent of lipid binding protein trafficking at the plasma membrane in human skeletal muscle: effect of a 3-day, high-fat diet. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2014**, 307, R1136-45	3.2	8
14	Personalized phosphoproteomics identifies functional signaling. *Nature Biotechnology*, **2021**,	44.5	8
13	The insulin-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	3.9	7
12	Ketogenic Diets for Fat Loss and Exercise Performance: Benefits and Safety?. *Exercise and Sport Sciences Reviews*, **2015**, 43, 109	6.7	6
11	Suboptimal Nutrition and Low Physical Activity Are Observed Together with Reduced Plasma (BDNF) Concentration in Children with Severe Cerebral Palsy (CP). *Nutrients*, **2019**, 11,	6.7	5
10	Mechanisms Underlying Absent Training-Induced Improvement in Insulin Action in Lean, Hyperandrogenic Women With Polycystic Ovary Syndrome. *Diabetes*, **2020**, 69, 2267-2280	0.9	5
9	Small Amounts of Dietary Medium-Chain Fatty Acids Protect Against Insulin Resistance During Caloric Excess in Humans. *Diabetes*, **2021**, 70, 91-98	0.9	4

8	Fatty acid type-specific regulation of SIRT1 does not affect insulin sensitivity in human skeletal muscle. *FASEB Journal*, **2019**, 33, 5510-5519	0.9	3
7	Pharmacological targeting of β4 nicotinic receptors improves peripheral insulin sensitivity in mice with diet-induced obesity. *Diabetologia*, **2020**, 63, 1236-1247	10.3	3
6	Hypothalamic hormone-sensitive lipase regulates appetite and energy homeostasis. *Molecular Metabolism*, **2021**, 47, 101174	8.8	3
5	Nutritional optimization for female elite football players-topical review. *Scandinavian Journal of Medicine and Science in Sports*, **2021**,	4.6	3
4	Exercise physiology: from performance studies to muscle physiology and cardiovascular adaptations. *Journal of Applied Physiology*, **2014**, 117, 943-4	3.7	2
3	Supplementation of docosahexaenoic acid (DHA), vitamin D and uridine in combination with six weeks of cognitive and motor training in prepubescent children: a pilot study. *BMC Nutrition*, **2017**, 3, 37	2.5	1
2	Effects of Short-Term Dietary Protein Restriction on Blood Amino Acid Levels in Young Men. *Nutrients*, **2020**, 12,	6.7	1
1	Fat Metabolism During and After Exercise **2013**, 156-165		