Heikki Kainulainen

List of Publications by Year in descending order

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109 papers 3,404 citations

147801 31 h-index 54 g-index

113 all docs

113 docs citations

113 times ranked 5984 citing authors

#	Article	IF	CITATIONS
1	Branched-Chain Amino Acid Deprivation Decreases Lipid Oxidation and Lipogenesis in C2C12 Myotubes. Metabolites, 2022, 12, 328.	2.9	7
2	Enlarged PLIN5-uncoated lipid droplets in inner regions of skeletal muscle type II fibers associate with type 2 diabetes. Acta Histochemica, 2022, 124, 151869.	1.8	3
3	A collagen extraction and deuterium oxide stable isotope tracer method for the quantification of bone collagen synthesis rates <i>in vivo</i> . Physiological Reports, 2021, 9, e14799.	1.7	2
4	Interactive effects of aging and aerobic capacity on energy metabolism–related metabolites of serum, skeletal muscle, and white adipose tissue. GeroScience, 2021, 43, 2679-2691.	4.6	8
5	Rats with elevated genetic risk for metabolic syndrome exhibit cognitive deficiencies when young. Physiology and Behavior, 2021, 236, 113417.	2.1	3
6	Higher glucose availability augments the metabolic responses of the C2C12 myotubes to exercise-like electrical pulse stimulation. American Journal of Physiology - Endocrinology and Metabolism, 2021, 321, E229-E245.	3.5	9
7	Rats bred for low intrinsic aerobic exercise capacity link obesity with brain inflammation and reduced structural plasticity of the hippocampus. Brain, Behavior, and Immunity, 2021, 97, 250-259.	4.1	6
8	Striated muscle-specific serine/threonine-protein kinase beta segregates with high versus low responsiveness to endurance exercise training. Physiological Genomics, 2020, 52, 35-46.	2.3	17
9	Effects of aerobic and strength training on aerobic capacity, muscle strength, and gene expression of lymphomonocytes in patients with stable CAD. American Journal of Translational Research (discontinued), 2020, 12, 4582-4593.	0.0	1
10	Beneficial effects of running and milk protein supplements on Sirtuins and risk factors of metabolic disorders in rats with low aerobic capacity. Metabolism Open, 2019, 4, 100019.	2.9	6
11	Fat oxidation at rest and during exercise in male monozygotic twins. European Journal of Applied Physiology, 2019, 119, 2711-2722.	2.5	7
12	Associations of Aerobic Fitness and Maximal Muscular Strength With Metabolites in Young Men. JAMA Network Open, 2019, 2, e198265.	5.9	30
13	Strength Training Improves Metabolic Health Markers in Older Individual Regardless of Training Frequency. Frontiers in Physiology, 2019, 10, 32.	2.8	46
14	Physiological adaptations to resistance training in rats selectively bred for low and high response to aerobic exercise training. Experimental Physiology, 2018, 103, 1513-1523.	2.0	12
15	Corrected whole blood biomarkers - the equationÂof Dill and Costill revisited. Physiological Reports, 2018, 6, e13749.	1.7	26
16	Enterobacter cloacae administration induces hepatic damage and subcutaneous fat accumulation in high-fat diet fed mice. PLoS ONE, 2018, 13, e0198262.	2.5	22
17	PO-201 Aging attenuates the effect of aerobic capacity in muscle and serum metabolic profile but not in white adipose tissue. Exercise Biochemistry Review, $2018,1,.$	0.0	О
18	Acute Metabolic Response, Energy Expenditure, and EMG Activity in Sitting and Standing. Medicine and Science in Sports and Exercise, 2017, 49, 1927-1934.	0.4	39

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19	Intrinsic aerobic capacity governs the associations between gut microbiota composition and fat metabolism age-dependently in rat siblings. Physiological Genomics, 2017, 49, 733-746.	2.3	13
20	Treatment with soluble activin type IIB-receptor improves bone mass and strength in a mouse model of Duchenne muscular dystrophy. BMC Musculoskeletal Disorders, 2017, 18, 20.	1.9	23
21	Branched-Chain Amino Acid Levels Are Related with Surrogates of Disturbed Lipid Metabolism among Older Men. Frontiers in Medicine, 2016, 3, 57.	2.6	32
22	Voluntary Running Aids to Maintain High Body Temperature in Rats Bred for High Aerobic Capacity. Frontiers in Physiology, 2016, 7, 311.	2.8	10
23	Effects of intrinsic aerobic capacity, aging and voluntary running on skeletal muscle sirtuins and heat shock proteins. Experimental Gerontology, 2016, 79, 46-54.	2.8	33
24	iGEMS: an integrated model for identification of alternative exon usage events. Nucleic Acids Research, 2016, 44, e109-e109.	14.5	18
25	CHI3L1 - a novel myokine. Acta Physiologica, 2016, 216, 260-261.	3.8	2
26	Effects of muscular dystrophy, exercise and blocking activin receptor IIB ligands on the unfolded protein response and oxidative stress. Free Radical Biology and Medicine, 2016, 99, 308-322.	2.9	27
27	Physical exercise increases adult hippocampal neurogenesis in male rats provided it is aerobic and sustained. Journal of Physiology, 2016, 594, 1855-1873.	2.9	187
28	Predictors of increase in physical activity during a 6-month follow-up period among overweight and physically inactive healthy young adults. Journal of Exercise Science and Fitness, 2015, 13, 63-71.	2.2	6
29	Physical activity in adulthood: genes and mortality. Scientific Reports, 2015, 5, 18259.	3.3	60
30	DAPIT Over-Expression Modulates Glucose Metabolism and Cell Behaviour in HEK293T Cells. PLoS ONE, 2015, 10, e0131990.	2.5	14
31	PGC-1 isoforms and their target genes are expressed differently in human skeletal muscle following resistance and endurance exercise. Physiological Reports, 2015, 3, e12563.	1.7	54
32	Muscle Inactivity Is Adversely Associated with Biomarkers in Physically Active Adults. Medicine and Science in Sports and Exercise, 2015, 47, 1188-1196.	0.4	22
33	Physical Activity, Fitness, Glucose Homeostasis, and Brain Morphology in Twins. Medicine and Science in Sports and Exercise, 2015, 47, 509-518.	0.4	35
34	Effect of diet composition on acid–base balance in adolescents, young adults and elderly at rest and during exercise. European Journal of Clinical Nutrition, 2015, 69, 399-404.	2.9	29
35	Myostatin/activin blocking combined with exercise reconditions skeletal muscle expression profile of mdx mice. Molecular and Cellular Endocrinology, 2015, 399, 131-142.	3.2	21
36	Validation of a method to measure total spontaneous physical activity of sedentary and voluntary running mice. Journal of Neuroscience Methods, 2014, 235, 51-58.	2.5	8

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37	Labelâ€free profiling of skeletal muscle using highâ€definition mass spectrometry. Proteomics, 2014, 14, 2339-2344.	2.2	44
38	Lipid droplet-associated proteins in high-fat fed mice with the effects of voluntary running and diet change. Metabolism: Clinical and Experimental, 2014, 63, 1031-1040.	3.4	23
39	High-fat feeding induces angiogenesis in skeletal muscle and activates angiogenic pathways in capillaries. Angiogenesis, 2013, 16, 297-307.	7.2	23
40	Long-term Leisure-time Physical Activity and Serum Metabolome. Circulation, 2013, 127, 340-348.	1.6	193
41	Muscle protein synthesis, mTORC1/MAPK/Hippo signaling, and capillary density are altered by blocking of myostatin and activins. American Journal of Physiology - Endocrinology and Metabolism, 2013, 304, E41-E50.	3.5	76
42	Are skeletal muscle <i>FNDC5</i> gene expression and irisin release regulated by exercise and related to health?. Journal of Physiology, 2013, 591, 5393-5400.	2.9	219
43	Exercise restores decreased physical activity levels and increases markers of autophagy and oxidative capacity in myostatin/activin-blocked mdx mice. American Journal of Physiology - Endocrinology and Metabolism, 2013, 305, E171-E182.	3.5	38
44	Potential Role of Branched-Chain Amino Acid Catabolism in Regulating Fat Oxidation. Exercise and Sport Sciences Reviews, 2013, 41, 194-200.	3.0	67
45	Altered REDD1, myostatin, and Akt/mTOR/FoxO/MAPK signaling in streptozotocin-induced diabetic muscle atrophy. American Journal of Physiology - Endocrinology and Metabolism, 2012, 302, E307-E315.	3.5	70
46	Low-protein vegetarian diet does not have a short-term effect on blood acid–base status but raises oxygen consumption during submaximal cycling. Journal of the International Society of Sports Nutrition, 2012, 9, 50.	3.9	27
47	Effects of high-fat diet and physical activity on pyruvate dehydrogenase kinase-4 in mouse skeletal muscle. Nutrition and Metabolism, 2012, 9, 53.	3.0	39
48	Selective breeding for endurance running capacity affects cognitive but not motor learning in rats. Physiology and Behavior, 2012, 106, 95-100.	2.1	27
49	Rats Bred for Low Aerobic Capacity Become Promptly Fatigued and Have Slow Metabolic Recovery after Stimulated, Maximal Muscle Contractions. PLoS ONE, 2012, 7, e48345.	2.5	9
50	Artificial Selection for High Aerobic Capacity is Protective against Weight Gain via Thermogenesis?. FASEB Journal, 2012, 26, 1073.5.	0.5	0
51	TopoCell – An image analysis tool to study intracellular topography. FASEB Journal, 2012, 26, 578.2.	0.5	0
52	Blocking of myostatin and activins increase muscle protein synthesis and mTORC1 signaling but decreases capillary density. FASEB Journal, 2012, 26, 1075.2.	0.5	0
53	Lung autophagic response following exposure of mice to whole body irradiation, with and without amifostine. Biochemical and Biophysical Research Communications, 2011, 404, 552-558.	2.1	9
54	Leisureâ€time physical activity and artery lumen diameters: A monozygotic coâ€twin control study. Scandinavian Journal of Medicine and Science in Sports, 2011, 21, e208-14.	2.9	7

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55	Extraction of Input Function from Rat [18F]FDG PET Images. Molecular Imaging and Biology, 2011, 13, 1241-1249.	2.6	7
56	Effects of diet-induced obesity and voluntary wheel running on the microstructure of the murine distal femur. Nutrition and Metabolism, 2011, 8, 1.	3.0	71
57	Vertical ground reaction force measurements and video measurements provide comparable estimates of distance moved by mice during artificial light and dark periods. Journal of Neuroscience Methods, 2011, 197, 104-108.	2.5	4
58	"Autophagic flux" in normal mouse tissues: Focus on endogenous LC3A processing. Autophagy, 2011, 7, 1371-1378.	9.1	59
59	Development of Rat Models for Low and High Response to Exercise Training. Medicine and Science in Sports and Exercise, 2010, 42, 61-62.	0.4	O
60	Effects of Diet-Induced Obesity and Voluntary Wheel Running on Bone Properties in Young Male C57BL/6J Mice. Calcified Tissue International, 2010, 86, 411-419.	3.1	31
61	Gene expression centroids that link with low intrinsic aerobic exercise capacity and complex disease risk. FASEB Journal, 2010, 24, 4565-4574.	0.5	56
62	Differences in Muscle and Adipose Tissue Gene Expression and Cardio-Metabolic Risk Factors in the Members of Physical Activity Discordant Twin Pairs. PLoS ONE, 2010, 5, e12609.	2.5	65
63	Increased PDK4 expression via PGCâ€1î±/ERRα – dependent mechanism in mouse skeletal muscle after high fat feeding. FASEB Journal, 2010, 24, 987.5.	0.5	O
64	Rats selectively bred for low aerobic capacity become promptly fatigued and have slow metabolic recovery after stimulated muscle contractions. FASEB Journal, 2010, 24, 1045.12.	0.5	0
65	Long lasting high fat feeding increases the capillary density in the skeletal muscle of mice. FASEB Journal, 2010, 24, 1031.6.	0.5	O
66	The Role of PDK4 in High Fat Diet - Induced Insulin Resistance. Medicine and Science in Sports and Exercise, 2010, 42, 91.	0.4	0
67	High Fat Feeding Increases The Capillary Density In The Skeletal Muscle Of Mice. Medicine and Science in Sports and Exercise, 2010, 42, 67.	0.4	0
68	Rats Bred For Low Aerobic Capacity Become Rapidly Fatigued And Have Slow Metabolic Recovery After Stimulated Muscle Contractions. Medicine and Science in Sports and Exercise, 2010, 42, 54.	0.4	0
69	Run more, perform better—old truth revisited. Journal of Applied Physiology, 2009, 106, 1477-1478.	2.5	2
70	Effects of fatiguing jumping exercise on mRNA expression of titin-complex proteins and calpains. Journal of Applied Physiology, 2009, 106, 1419-1424.	2.5	38
71	Effects of 32-Year Leisure Time Physical Activity Discordance in Twin Pairs on Health (TWINACTIVE) Tj ETQq1 1 0.7 108-117.	84314 rgl 0.6	BT /Overloc 36
72	Resistance exercise with whey protein ingestion affects mTOR signaling pathway and myostatin in men. Journal of Applied Physiology, 2009, 106, 1720-1729.	2.5	112

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73	Leisure-time physical activity and high-risk fat: a longitudinal population-based twin study. International Journal of Obesity, 2009, 33, 1211-1218.	3.4	78
74	Leisure Time Physical Activity And Body Fat: A Twin Study. Medicine and Science in Sports and Exercise, 2009, 41, 514-515.	0.4	0
7 5	Reply to Murphy and Lamb. Journal of Applied Physiology, 2009, 106, 2069-2069.	2.5	0
76	Short-term bone biochemical response to a single bout of high-impact exercise. Journal of Sports Science and Medicine, 2009, 8, 553-9.	1.6	20
77	Degradative and mechanical properties of a novel resorbable plating system during a 3-year follow-up inÂvivo and inÂvitro. Journal of Materials Science: Materials in Medicine, 2008, 19, 1155-1163.	3.6	50
78	Exercise-induced expression of angiogenic growth factors in skeletal muscle and in capillaries of healthy and diabetic mice. Cardiovascular Diabetology, 2008, 7, 13.	6.8	67
79	Amorphous and crystalline polyetheretherketone: Mechanical properties and tissue reactions during a 3â€year followâ€up. Journal of Biomedical Materials Research - Part A, 2008, 84A, 377-383.	4.0	88
80	Molecular adaptations of voltageâ€gated sodium ion channel related proteins after fatiguing stretchâ€shortening cycle exercise. Scandinavian Journal of Medicine and Science in Sports, 2008, 18, 636-642.	2.9	2
81	Myocardial blood flow and adenosine A _{2A} receptor density in endurance athletes and untrained men. Journal of Physiology, 2008, 586, 5193-5202.	2.9	32
82	Effects of acute exercise, exercise training, and diabetes on the expression of lymphangiogenic growth factors and lymphatic vessels in skeletal muscle. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H2573-H2579.	3.2	17
83	Effects of streptozotocin-induced diabetes and physical training on gene expression of titin-based stretch-sensing complexes in mouse striated muscle. American Journal of Physiology - Endocrinology and Metabolism, 2007, 292, E533-E542.	3.5	23
84	A single bout of exercise with high mechanical loading induces the expression of Cyr61/CCN1 and CTGF/CCN2 in human skeletal muscle. Journal of Applied Physiology, 2007, 103, 1395-1401.	2.5	45
85	Gluten affects epithelial differentiation-associated genes in small intestinal mucosa of coeliac patients. Clinical and Experimental Immunology, 2007, 150, 294-305.	2.6	40
86	Physical training attenuates gene expression of ubiquitinâ€proteasome pathway in diabetic mouse skeletal muscle. FASEB Journal, 2007, 21, A837.	0.5	0
87	In vivo and in vitro degradation of a novel bioactive guided tissue regeneration membrane. International Journal of Oral and Maxillofacial Surgery, 2006, 35, 727-732.	1.5	25
88	Gene expression in TGFbeta-induced epithelial cell differentiation in a three-dimensional intestinal epithelial cell differentiation model. BMC Genomics, 2006, 7, 279.	2.8	13
89	Effects of streptozotocin-induced diabetes and physical training on gene expression of extracellular matrix proteins in mouse skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2006, 290, E900-E907.	3.5	28
90	Murine Ortholog of the Novel Glycosyltransferase, B3GTL: Primary Structure, Characterization of the Gene and Transcripts, and Expression in Tissues. DNA and Cell Biology, 2006, 25, 465-474.	1.9	9

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91	Effects of experimental type 1 diabetes and exercise training on angiogenic gene expression and capillarization in skeletal muscle. FASEB Journal, 2006, 20, 1570-1572.	0.5	112
92	Small bowel cyclooxygenase 2 (COX-2) expression in patients with IgA nephropathy. Kidney International, 2005, 67, 2187-2195.	5.2	24
93	TGF-Î ² induces the expression of SAP30L, a novel nuclear protein. BMC Genomics, 2003, 4, 53.	2.8	16
94	A novel human glycosyltransferase: primary structure and characterization of the gene and transcripts. Biochemical and Biophysical Research Communications, 2003, 309, 166-174.	2.1	19
95	Differentially expressed CC3/TIP30 and rab11 along in vivo and in vitro intestinal epithelial cell crypt-villus axis. Life Sciences, 2001, 69, 1363-1372.	4.3	12
96	A New Biodegradable Stent for the Pancreaticojejunal Anastomosis After Pancreaticoduodenal Resection: In Vitro Examination and Pilot Experiences in Humans. Pancreas, 2000, 21, 14-21.	1.1	28
97	Identification of Novel Transcription Factor-like Gene from Human Intestinal Cells. Biochemical and Biophysical Research Communications, 2000, 276, 660-666.	2.1	40
98	Small bowel T cells, HLA class II antigen DR, and GroEL stress protein in IgA nephropathy. Kidney International, 1999, 55, 2274-2280.	5.2	25
99	Reverse Transcription-Polymerase Chain Reaction in the Diagnosis of Helicobacter pylori Infection in Finnish Children. Journal of Pediatric Gastroenterology and Nutrition, 1999, 28, 252-256.	1.8	9
100	Placental Glucose Transporters in Fetal Intrauterine Growth Retardation and Macrosomia. Gynecologic and Obstetric Investigation, 1997, 44, 89-92.	1.6	44
101	Alternative mRNA Splicing of the Novel GTPase Rab28 Generates Isoforms with Different C-Termini. FEBS Journal, 1996, 237, 833-840.	0.2	29
102	Enterochromaffin cell density in the gastric mucosa of patients with chronic renal failure. Apmis, 1996, 104, 362-366.	2.0	13
103	Dyrk, a Dual Specificity Protein Kinase with Unique Structural Features Whose Activity Is Dependent on Tyrosine Residues between Subdomains VII and VIII. Journal of Biological Chemistry, 1996, 271, 3488-3495.	3.4	231
104	Dissociation of the effects of training on oxidative metabolism, glucose utilisation and GLUT4 levels in skeletal muscle of streptozotocin-diabetic rats. Pflugers Archiv European Journal of Physiology, 1994, 427, 444-449.	2.8	15
105	Effects of training and anabolic steroids on collagen synthesis in dog heart. European Journal of Applied Physiology and Occupational Physiology, 1991, 62, 1-6.	1.2	31
106	Effects of Training on Regional Substrate Oxidation in the Hearts of Ageing Rats. Gerontology, 1989, 35, 289-296.	2.8	8
107	Redistribution of glucose uptake by chronic exercise, measured in isolated perfused rat hearts. Pflugers Archiv European Journal of Physiology, 1985, 403, 296-300.	2.8	13
108	Model ecosystem for environmental transport of xenobiotics. Archives of Environmental Contamination and Toxicology, 1982, 11, 419-424.	4.1	1

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10)9	Treatment with soluble activin type IIB-receptor improves bone mass and strength in a mouse model of duchenne muscular dystrophy. Bone Abstracts, 0, , .	0.0	0