

# Alexander V Chibalin

## List of Publications by Year in descending order

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70  
papers

3,199  
citations

136950

32  
h-index

155660

55  
g-index

70  
all docs

70  
docs citations

70  
times ranked

3335  
citing authors

#	ARTICLE	IF	CITATIONS
1	5-Amino-Imidazole Carboxamide Riboside Increases Glucose Transport and Cell-Surface GLUT4 Content in Skeletal Muscle From Subjects With Type 2 Diabetes. <i>Diabetes</i> , 2003, 52, 1066-1072.	0.6	214
2	Divergent effects of exercise on metabolic and mitogenic signaling pathways in human skeletal muscle. <i>FASEB Journal</i> , 1998, 12, 1379-1389.	0.5	209
3	Downregulation of Diacylglycerol Kinase Delta Contributes to Hyperglycemia-Induced Insulin Resistance. <i>Cell</i> , 2008, 132, 375-386.	28.9	194
4	Dopamine-induced Endocytosis of Na <sup>+</sup> ,K <sup>+</sup> -ATPase Is Initiated by Phosphorylation of Ser-18 in the Rat $\hat{\alpha}$ Subunit and Is Responsible for the Decreased Activity in Epithelial Cells. <i>Journal of Biological Chemistry</i> , 1999, 274, 1920-1927.	3.4	190
5	Phosphorylation of the Catalytic $\hat{\alpha}$ -Subunit Constitutes a Triggering Signal for Na <sup>+</sup> ,K <sup>+</sup> -ATPase Endocytosis. <i>Journal of Biological Chemistry</i> , 1998, 273, 8814-8819.	3.4	146
6	Receptor-mediated inhibition of renal Na <sup>+</sup> -K <sup>+</sup> -ATPase is associated with endocytosis of its $\hat{\alpha}$ - and $\hat{\beta}$ -subunits. <i>American Journal of Physiology - Cell Physiology</i> , 1997, 273, C1458-C1465.	4.6	114
7	Isoproterenol increases Na <sup>+</sup> -K <sup>+</sup> -ATPase activity by membrane insertion of $\hat{\alpha}$ -subunits in lung alveolar cells. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 1999, 276, L20-L27.	2.9	107
8	Marathon running increases ERK1/2 and p38 MAP kinase signalling to downstream targets in human skeletal muscle. <i>Journal of Physiology</i> , 2001, 536, 273-282.	2.9	98
9	Comparative profiling of skeletal muscle models reveals heterogeneity of transcriptome and metabolism. <i>American Journal of Physiology - Cell Physiology</i> , 2020, 318, C615-C626.	4.6	91
10	Acute sleep loss results in tissue-specific alterations in genome-wide DNA methylation state and metabolic fuel utilization in humans. <i>Science Advances</i> , 2018, 4, eaar8590.	10.3	86
11	ERK1/2 Mediates Insulin Stimulation of Na,K-ATPase by Phosphorylation of the $\hat{\alpha}$ -Subunit in Human Skeletal Muscle Cells. <i>Journal of Biological Chemistry</i> , 2004, 279, 25211-25218.	3.4	83
12	Phosphatidylinositol 3-Kinase-mediated Endocytosis of Renal Na <sup>+</sup> ,K <sup>+</sup> -ATPase $\hat{\alpha}$ Subunit in Response to Dopamine. <i>Molecular Biology of the Cell</i> , 1998, 9, 1209-1220.	2.1	82
13	Na,K-ATPase regulation in skeletal muscle. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2016, 311, E1-E31.	3.5	79
14	Methotrexate Promotes Glucose Uptake and Lipid Oxidation in Skeletal Muscle via AMPK Activation. <i>Diabetes</i> , 2015, 64, 360-369.	0.6	66
15	Glucose Decreases Na <sup>+</sup> ,K <sup>+</sup> -ATPase Activity in Pancreatic $\hat{\beta}$ -Cells. <i>Journal of Biological Chemistry</i> , 1999, 274, 2000-2008.	3.4	65
16	Protein kinase A induces recruitment of active Na <sup>+</sup> ,K <sup>+</sup> -ATPase units to the plasma membrane of rat proximal convoluted tubule cells. <i>Journal of Physiology</i> , 1998, 511, 235-243.	2.9	64
17	Cardiotonic Steroids Stimulate Glycogen Synthesis in Human Skeletal Muscle Cells via a Src- and ERK1/2-dependent Mechanism. <i>Journal of Biological Chemistry</i> , 2006, 281, 20085-20094.	3.4	61
18	Activation of AMP-activated Protein Kinase Stimulates Na <sup>+</sup> ,K <sup>+</sup> -ATPase Activity in Skeletal Muscle Cells. <i>Journal of Biological Chemistry</i> , 2012, 287, 23451-23463.	3.4	58

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19	AMP-activated protein kinase activator A-769662 is an inhibitor of the Na <sup>+</sup> -K <sup>+</sup> -ATPase. American Journal of Physiology - Cell Physiology, 2009, 297, C1554-C1566.	4.6	56
20	Na <sup>+</sup> ,K <sup>+</sup> -ATPase trafficking in skeletal muscle: insulin stimulates translocation of both $\hat{1}$ - and $\hat{2}$ -subunit isoforms. FEBS Letters, 2003, 536, 198-202.	2.8	55
21	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.	4.6	55
22	The Nicotinic Acetylcholine Receptor and the Na,K-ATPase $\hat{2}$ Isoform Interact to Regulate Membrane Electrogenesis in Skeletal Muscle. Journal of Biological Chemistry, 2010, 285, 28614-28626.	3.4	55
23	Insulin- and Glucose-Induced Phosphorylation of the Na <sup>+</sup> ,K <sup>+</sup> -Adenosine Triphosphatase $\hat{1}$ -Subunits in Rat Skeletal Muscle. Endocrinology, 2001, 142, 3474-3482.	2.8	51
24	Neuregulins Mediate Calcium-induced Glucose Transport during Muscle Contraction. Journal of Biological Chemistry, 2006, 281, 21690-21697.	3.4	47
25	Distinct $\hat{2}$ Na,K-ATPase membrane pools are differently involved in early skeletal muscle remodeling during disuse. Journal of General Physiology, 2016, 147, 175-188.	1.9	47
26	Membrane lipid rafts are disturbed in the response of rat skeletal muscle to short-term disuse. American Journal of Physiology - Cell Physiology, 2017, 312, C627-C637.	4.6	46
27	In vitro analysis of the glucose-transport system in GLUT4-null skeletal muscle. Biochemical Journal, 1999, 342, 321-328.	3.7	43
28	Frontiers: Skeletal muscle sodium pump regulation: a translocation paradigm. American Journal of Physiology - Endocrinology and Metabolism, 2008, 295, E553-E558.	3.5	43
29	Early endplate remodeling and skeletal muscle signaling events following rat hindlimb suspension. Journal of Cellular Physiology, 2018, 233, 6329-6336.	4.1	36
30	Altered expression and insulin-induced trafficking of Na <sup>+</sup> -K <sup>+</sup> -ATPase in rat skeletal muscle: effects of high-fat diet and exercise. American Journal of Physiology - Endocrinology and Metabolism, 2009, 297, E38-E49.	3.5	35
31	Chronic Nicotine Modifies Skeletal Muscle Na,K-ATPase Activity through Its Interaction with the Nicotinic Acetylcholine Receptor and Phospholemman. PLoS ONE, 2012, 7, e33719.	2.5	34
32	C-Peptide Increases Na,K-ATPase Expression via PKC- and MAP Kinase-Dependent Activation of Transcription Factor ZEB in Human Renal Tubular Cells. PLoS ONE, 2011, 6, e28294.	2.5	33
33	Effect of N-acetylcysteine infusion on exercise-induced modulation of insulin sensitivity and signaling pathways in human skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2015, 309, E388-E397.	3.5	33
34	Effect of exercise and training on phospholemman phosphorylation in human skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2011, 301, E456-E466.	3.5	31
35	Diacylglycerol kinase- $\hat{1}$ regulates AMPK signaling, lipid metabolism, and skeletal muscle energetics. American Journal of Physiology - Endocrinology and Metabolism, 2016, 310, E51-E60.	3.5	31
36	Exercise training improves mitochondrial respiration and is associated with an altered intramuscular phospholipid signature in women with obesity. Diabetologia, 2021, 64, 1642-1659.	6.3	30

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37	Secreted protein acidic and rich in cysteine (SPARC) improves glucose tolerance via AMP-activated protein kinase activation. <i>FASEB Journal</i> , 2019, 33, 10551-10562.	0.5	25
38	Influence of chronic and acute spinal cord injury on skeletal muscle Na <sup>+</sup> -K <sup>+</sup> -ATPase and phospholemman expression in humans. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2012, 302, E864-E871.	3.5	24
39	Transcriptomic changes in C2C12 myotubes triggered by electrical stimulation: Role of Ca <sup>2+</sup> -mediated and Ca <sup>2+</sup> -independent signaling and elevated [Na <sup>+</sup> ] <sub>i</sub> /[K <sup>+</sup> ] <sub>i</sub> ratio. <i>Cell Calcium</i> , 2018, 76, 72-86.	2.4	24
40	Proteomics Analysis of Skeletal Muscle from Leptin-Deficient <i>ob/ob</i> Mice Reveals Adaptive Remodeling of Metabolic Characteristics and Fiber Type Composition. <i>Proteomics</i> , 2018, 18, e1700375.	2.2	22
41	Functional characterisation of mutations in the ligand-binding domain of the androgen receptor gene in patients with androgen insensitivity syndrome. <i>Human Genetics</i> , 1998, 103, 529-431.	3.8	20
42	FAK tyrosine phosphorylation is regulated by AMPK and controls metabolism in human skeletal muscle. <i>Diabetologia</i> , 2018, 61, 424-432.	6.3	20
43	Branched-chain amino acid metabolism is regulated by ERR $\alpha$ in primary human myotubes and is further impaired by glucose loading in type 2 diabetes. <i>Diabetologia</i> , 2021, 64, 2077-2091.	6.3	20
44	mRNA expression of diacylglycerol kinase isoforms in insulin-sensitive tissues: effects of obesity and insulin resistance. <i>Physiological Reports</i> , 2015, 3, e12372.	1.7	19
45	Nucleosides block AICAR-stimulated activation of AMPK in skeletal muscle and cancer cells. <i>American Journal of Physiology - Cell Physiology</i> , 2018, 315, C803-C817.	4.6	17
46	Association of the ACTN3 R577X polymorphism with glucose tolerance and gene expression of sarcomeric proteins in human skeletal muscle. <i>Physiological Reports</i> , 2015, 3, e12314.	1.7	16
47	Ouabain Suppresses IL-6/STAT3 Signaling and Promotes Cytokine Secretion in Cultured Skeletal Muscle Cells. <i>Frontiers in Physiology</i> , 2020, 11, 566584.	2.8	16
48	Discovery of thymosin $\beta$ 4 as a human exerkine and growth factor. <i>American Journal of Physiology - Cell Physiology</i> , 2021, 321, C770-C778.	4.6	16
49	MicroRNA-208b progressively declines after spinal cord injury in humans and is inversely related to myostatin expression. <i>Physiological Reports</i> , 2015, 3, e12622.	1.7	15
50	Diacylglycerol kinase $\mu$ deficiency preserves glucose tolerance and modulates lipid metabolism in obese mice. <i>Journal of Lipid Research</i> , 2017, 58, 907-915.	4.2	15
51	Modified UCN2 Peptide Acts as an Insulin Sensitizer in Skeletal Muscle of Obese Mice. <i>Diabetes</i> , 2019, 68, 1403-1414.	0.6	15
52	DGK $\alpha$ deficiency protects against peripheral insulin resistance and improves energy metabolism. <i>Journal of Lipid Research</i> , 2017, 58, 2324-2333.	4.2	14
53	Diacylglycerol kinase $\beta$ deficiency alters inflammation markers in adipose tissue in response to a high-fat diet. <i>Journal of Lipid Research</i> , 2018, 59, 273-282.	4.2	13
54	Hormonal regulation of Na <sup>+</sup> -K <sup>+</sup> -ATPase from the evolutionary perspective. <i>Current Topics in Membranes</i> , 2019, 83, 315-351.	0.9	13

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55	The role of AMPK in regulation of Na <sup>+</sup> ,K <sup>+</sup> -ATPase in skeletal muscle: does the gauge always plug the sink?. <i>Journal of Muscle Research and Cell Motility</i> , 2021, 42, 77-97.	2.0	13
56	A simple and rapid method to characterize lipid fate in skeletal muscle. <i>BMC Research Notes</i> , 2014, 7, 391.	1.4	12
57	Regulation of the Na,K-ATPase: Special implications for cardiovascular complications of metabolic syndrome. <i>Pathophysiology</i> , 2007, 14, 153-158.	2.2	11
58	Early vertebrate origin and diversification of small transmembrane regulators of cellular ion transport. <i>Journal of Physiology</i> , 2017, 595, 4611-4630.	2.9	11
59	Phosphorylation of the Na <sup>+</sup> ,K <sup>+</sup> -ATPase in Skeletal Muscle. <i>Annals of the New York Academy of Sciences</i> , 2003, 986, 449-452.	3.8	9
60	AMPK $\beta$ 3 is dispensable for skeletal muscle hypertrophy induced by functional overload. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2016, 310, E461-E472.	3.5	9
61	Isoform-specific Na,K-ATPase and membrane cholesterol remodeling in motor endplates in distinct mouse models of myodystrophy. <i>American Journal of Physiology - Cell Physiology</i> , 2020, 318, C1030-C1041.	4.6	9
62	Low AS160 and high SGK basal phosphorylation associates with impaired incretin profile and type 2 diabetes in adipose tissue of obese patients. <i>Diabetes Research and Clinical Practice</i> , 2019, 158, 107928.	2.8	7
63	Effect of differentiation, de novo innervation, and electrical pulse stimulation on mRNA and protein expression of Na <sup>+</sup> ,K <sup>+</sup> -ATPase, FXD1, and FXD5 in cultured human skeletal muscle cells. <i>PLoS ONE</i> , 2021, 16, e0247377.	2.5	7
64	Quantitative phosphoproteomic analysis of IRS1 in skeletal muscle from men with normal glucose tolerance or type 2 diabetes: A case-control study. <i>Metabolism: Clinical and Experimental</i> , 2021, 118, 154726.	3.4	5
65	Phosphorylation of Na <sup>+</sup> ,K <sup>+</sup> -ATPase at Tyr10 of the $\alpha$ 1-Subunit is Suppressed by AMPK and Enhanced by Ouabain in Cultured Kidney Cells. <i>Journal of Membrane Biology</i> , 2021, 254, 531-548.	2.1	5
66	Treadmill Training Effect on the Myokines Content in Skeletal Muscles of Mice With a Metabolic Disorder Model. <i>Frontiers in Physiology</i> , 2021, 12, 709039.	2.8	3
67	Effects of fibre type and diffusion distance on mouse skeletal muscle glycogen content in vitro. <i>Journal of Cellular Biochemistry</i> , 2009, 107, 1189-1197.	2.6	2
68	Commentaries on Viewpoint: Maximal Na <sup>+</sup> -K <sup>+</sup> -ATPase activity is upregulated in association with muscle activity. <i>Journal of Applied Physiology</i> , 2012, 112, 2124-2126.	2.5	2
69	Spatial insulin signalling in isolated skeletal muscle preparations. <i>Journal of Cellular Biochemistry</i> , 2010, 109, 943-949.	2.6	1
70	VALIDATION OF THEIR VITROINCUBATION OF EXTENSOR DIGITORUM LONGUS MUSCLE FROM MICE WITH A MATHEMATICAL MODEL. <i>Journal of Biological Systems</i> , 2010, 18, 687-707.	1.4	1