Luc Bertrand

List of Publications by Year
in descending order

78 papers	6,670 citations	70961 41 h-index	76769 74 g-index
79 all docs	79 docs citations	79 times ranked	10011 citing authors

#	Article	IF	Citations
1	Metformin: From Mechanisms of Action to Therapies. Cell Metabolism, 2014, 20, 953-966.	7.2	1,019
2	Activation of AMP-activated protein kinase in the liver: a new strategy for the management of metabolic hepatic disorders. Journal of Physiology, 2006, 574, 41-53.	1.3	457
3	Activation of AMP-Activated Protein Kinase Leads to the Phosphorylation of Elongation Factor 2 and an Inhibition of Protein Synthesis. Current Biology, 2002, 12, 1419-1423.	1.8	415
4	6-Phosphofructo-2-kinase/fructose-2,6-bisphosphatase: head-to-head with a bifunctional enzyme that controls glycolysis. Biochemical Journal, 2004, 381, 561-579.	1.7	336
5	The Stimulation of Glycolysis by Hypoxia in Activated Monocytes Is Mediated by AMP-activated Protein Kinase and Inducible 6-Phosphofructo-2-kinase. Journal of Biological Chemistry, 2002, 277, 30778-30783.	1.6	318
6	AMPK: Lessons from transgenic and knockout animals. Frontiers in Bioscience - Landmark, 2009, Volume, 19.	3.0	248
7	Insulin signalling in the heart. Cardiovascular Research, 2008, 79, 238-248.	1.8	225
8	Deficiency of LKB1 in heart prevents ischemia-mediated activation of AMPKÎ±2 but not AMPKÎ±1. American Journal of Physiology - Endocrinology and Metabolism, 2006, 290, E780-E788.	1.8	193
9	AMPK activation counteracts cardiac hypertrophy by reducing O-GlcNAcylation. Nature Communications, 2018, 9, 374.	5.8	179
10	Deficiency of PDK1 in cardiac muscle results in heart failure and increased sensitivity to hypoxia. EMBO Journal, 2003, 22, 4666-4676.	3.5	166
11	AMPK activation, a preventive therapeutic target in the transition from cardiac injury to heart failure. Cardiovascular Research, 2011, 90, 224-233.	1.8	161
12	Control of p70 ribosomal protein S6 kinase and acetyl-CoA carboxylase by AMP-activated protein kinase and protein phosphatases in isolated hepatocytes. FEBS Journal, 2002, 269, 3751-3759.	0.2	142
13	AMPK activation restores the stimulation of glucose uptake in an in vitro model of insulin-resistant cardiomyocytes via the activation of protein kinase B. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H239-H250.	1.5	130
14	Enhanced Expression of Î²3-Adrenoceptors in Cardiac Myocytes Attenuates Neurohormone-Induced Hypertrophic Remodeling Through Nitric Oxide Synthase. Circulation, 2014, 129, 451-462.	1.6	125
15	Insulin antagonizes AMP-activated protein kinase activation by ischemia or anoxia in rat hearts, without affecting total adenine nucleotides. FEBS Letters, 2001, 505, 348-352.	1.3	113
16	AMPK in cardiac fibrosis and repair: Actions beyond metabolic regulation. Journal of Molecular and Cellular Cardiology, 2016, 91, 188-200.	0.9	110
17	Cardiac metabolism as a driver and therapeutic target of myocardial infarction. Journal of Cellular and Molecular Medicine, 2020, 24, 5937-5954.	1.6	101
18	AMPK activation by glucagon-like peptide-1 prevents NADPH oxidase activation induced by hyperglycemia in adult cardiomyocytes. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 307, H1120-H1133.	1.5	96

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19	NADPH oxidase activation by hyperglycaemia in cardiomyocytes is independent of glucose metabolism but requires SGLT1. Cardiovascular Research, 2011, 92, 237-246.	1.8	92
20	Insulin and Ischemia Stimulate Glycolysis by Acting on the Same Targets Through Different and Opposing Signaling Pathways. Journal of Molecular and Cellular Cardiology, 2002, 34, 1091-1097.	0.9	90
21	AMP-activated Protein Kinase in the Control of Cardiac Metabolism and Remodeling. Current Heart Failure Reports, 2012, 9, 164-173.	1.3	84
22	Crucial role for LKB1 to AMPKÎ±2 axis in the regulation of CD36-mediated long-chain fatty acid uptake into cardiomyocytesâ˜†. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2009, 1791, 212-219.	1.2	83
23	Role of the Î±2-isoform of AMP-activated protein kinase in the metabolic response of the heart to no-flow ischemia. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H2875-H2883.	1.5	80
24	Nuclear respiratory factor 1 and endurance exercise promote human telomere transcription. Science Advances, 2016, 2, e1600031.	4.7	78
25	Enhanced activation of cellular AMPK by dual-small molecule treatment: AICAR and A769662. American Journal of Physiology - Endocrinology and Metabolism, 2014, 306, E688-E696.	1.8	75
26	Towards standardization of echocardiography for the evaluation of left ventricular function in adult rodents: a position paper of the ESC Working Group on Myocardial Function. Cardiovascular Research, 2021, 117, 43-59.	1.8	72
27	Dual cardiac contractile effects of the Î±2-AMPK deletion in low-flow ischemia and reperfusion. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H3136-H3147.	1.5	71
28	Sodium-myoinositol cotransporter-1, SMIT1, mediates the production of reactive oxygen species induced by hyperglycemia in the heart. Scientific Reports, 2017, 7, 41166.	1.6	64
29	Heart 6-Phosphofructo-2-kinase Activation by Insulin Results from Ser-466 and Ser-483 Phosphorylation and Requires 3-Phosphoinositide-dependent Kinase-1, but Not Protein Kinase B. Journal of Biological Chemistry, 1999, 274, 30927-30933.	1.6	63
30	O-GlcNAcylation, enemy or ally during cardiac hypertrophy development?. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2016, 1862, 2232-2243.	1.8	62
31	No-Flow Ischemia Inhibits Insulin Signaling in Heart by Decreasing Intracellular pH. Circulation Research, 2001, 88, 513-519.	2.0	61
32	AMPKÎ±2 counteracts the development of cardiac hypertrophy induced by isoproterenol. Biochemical and Biophysical Research Communications, 2008, 376, 677-681.	1.0	57
33	AMPK-ACC signaling modulates platelet phospholipids and potentiates thrombus formation. Blood, 2018, 132, 1180-1192.	0.6	57
34	Regulation of Carbohydrate Metabolism, Lipid Metabolism, and Protein Metabolism by AMPK. Exs, 2016, 107, 23-43.	1.4	53
35	Activation of the cardiac mTOR/p70^{S6K} pathway by leucine requires PDK1 and correlates with PRAS40 phosphorylation. American Journal of Physiology - Endocrinology and Metabolism, 2010, 298, E761-E769.	1.8	52
36	Reduced scar maturation and contractility lead to exaggerated left ventricular dilation after myocardial infarction in mice lacking AMPKÎ±1. Journal of Molecular and Cellular Cardiology, 2014, 74, 32-43.	0.9	52

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37	AMP-activated protein kinase: A remarkable contributor to preserve a healthy heart against ROS injury. Free Radical Biology and Medicine, 2021, 166, 238-254.	1.3	52
38	Cardiac dysfunction in cancer patients: beyond direct cardiomyocyte damage of anticancer drugs: novel cardio-oncology insights from the joint 2019 meeting of the ESC Working Groups of Myocardial Function and Cellular Biology of the Heart. Cardiovascular Research, 2020, 116, 1820-1834.	1.8	51
39	Inhibition of the mTOR/p70S6K pathway is not involved in the insulin-sensitizing effect of AMPK on cardiac glucose uptake. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H469-H477.	1.5	48
40	Connection Between Cardiac Vascular Permeability, Myocardial Edema, and Inflammation During Sepsis. Critical Care Medicine, 2013, 41, e411-e422.	0.4	48
41	A-769662 potentiates the effect of other AMP-activated protein kinase activators on cardiac glucose uptake. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 306, H1619-H1630.	1.5	46
42	Comparison Between Adenoviral and Retroviral Vectors for the Transduction of the Thymidine Kinase PET Reporter Gene in Rat Mesenchymal Stem Cells. Journal of Nuclear Medicine, 2008, 49, 1836-1844.	2.8	42
43	The stimulation of heart glycolysis by increased workload does not require AMP-activated protein kinase but a wortmannin-sensitive mechanism. FEBS Letters, 2002, 531, 324-328.	1.3	41
44	Presenilin 2-Dependent Maintenance of Mitochondrial Oxidative Capacity and Morphology. Frontiers in Physiology, 2017, 8, 796.	1.3	40
45	Inhibition of aquaporin-1 prevents myocardial remodeling by blocking the transmembrane transport of hydrogen peroxide. Science Translational Medicine, 2020, 12, .	5.8	39
46	Diabetic Cardiomyopathy and Ischemic Heart Disease: Prevention and Therapy by Exercise and Conditioning. International Journal of Molecular Sciences, 2020, 21, 2896.	1.8	38
47	Role of AMP-activated protein kinase in regulating hypoxic survival and proliferation of mesenchymal stem cells. Cardiovascular Research, 2014, 101, 20-29.	1.8	36
48	Glucose transporters in cardiovascular system in health and disease. Pflugers Archiv European Journal of Physiology, 2020, 472, 1385-1399.	1.3	35
49	AMPK in Cardiovascular Diseases. Exs, 2016, 107, 179-201.	1.4	30
50	Animal models and animal-free innovations for cardiovascular research: current status and routes to be explored. Consensus document of the ESC Working Group on Myocardial Function and the ESC Working Group on Cellular Biology of the Heart. Cardiovascular Research, 2022, 118, 3016-3051.	1.8	30
51	Partial purification and characterization of a wortmannin-sensitive and insulin-stimulated protein kinase that activates heart 6-phosphofructo-2-kinase. Biochemical Journal, 2000, 347, 305-312.	1.7	29
52	Metabolism and acetylation contribute to leucine-mediated inhibition of cardiac glucose uptake. American Journal of Physiology - Heart and Circulatory Physiology, 2017, 313, H432-H445.	1.5	29
53	AMPKÎ±1 deletion in myofibroblasts exacerbates post-myocardial infarction fibrosis by a connexin 43 mechanism. Basic Research in Cardiology, 2021, 116, 10.	2.5	26
54	Heart 6-phosphofructo-2-kinase activation by insulin requires PKB (protein kinase B), but not SGK3 (serum- and glucocorticoid-induced protein kinase 3). Biochemical Journal, 2010, 431, 267-275.	1.7	25

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55	Differential regulation of eEF2 and p70S6K by AMPKalpha2 in heart. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2013, 1832, 780-790.	1.8	20
56	AMP-Activated Protein Kinase and O-GlcNAcylation, Two Partners Tightly Connected to Regulate Key Cellular Processes. Frontiers in Endocrinology, 2018, 9, 519.	1.5	19
57	New insight in understanding the contribution of SGLT1 in cardiac glucose uptake: evidence for a truncated form in mice and humans. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 320, H838-H853.	1.5	18
58	Sex Differences of the Diabetic Heart. Frontiers in Physiology, 2021, 12, 661297.	1.3	18
59	The Regulation of Insulin-Stimulated Cardiac Glucose Transport via Protein Acetylation. Frontiers in Cardiovascular Medicine, 2018, 5, 70.	1.1	17
60	The intra-mitochondrial O-GlcNAcylation system rapidly modulates OXPHOS function and ROS release in the heart. Communications Biology, 2022, 5, 349.	2.0	17
61	Myocardial glucotoxicity: Mechanisms and potential therapeutic targets. Archives of Cardiovascular Diseases, 2020, 113, 736-748.	0.7	16
62	Protein <i>O</i>â€GlcNAcylation levels are regulated independently of dietary intake in a tissue and timeâ€specific manner during rat postnatal development. Acta Physiologica, 2021, 231, e13566.	1.8	11
63	Changes of Metabolic Phenotype of Cardiac Progenitor Cells During Differentiation: Neutral Effect of Stimulation of AMP-Activated Protein Kinase. Stem Cells and Development, 2019, 28, 1498-1513.	1.1	10
64	Canagliflozin protects against sepsis capillary leak syndrome by activating endothelial Î±1AMPK. Scientific Reports, 2021, 11, 13700.	1.6	10
65	Î±1AMP-Activated Protein Kinase Protects against Lipopolysaccharide-Induced Endothelial Barrier Disruption via Junctional Reinforcement and Activation of the p38 MAPK/HSP27 Pathway. International Journal of Molecular Sciences, 2020, 21, 5581.	1.8	9
66	An O-GlcNAcylomic Approach Reveals ACLY as a Potential Target in Sepsis in the Young Rat. International Journal of Molecular Sciences, 2021, 22, 9236.	1.8	9
67	Studying the Role of AMPK in Cardiac Hypertrophy and Protein Synthesis. Methods in Molecular Biology, 2018, 1732, 321-342.	0.4	7
68	Mitochondrial-Targeted Therapies Require Mitophagy to Prevent Oxidative Stress Induced by SOD2 Inactivation in Hypertrophied Cardiomyocytes. Antioxidants, 2022, 11, 723.	2.2	7
69	Evaluation of the role of protein kinase CÎ¶ in insulin-induced heart 6-phosphofructo-2-kinase activation. Cellular Signalling, 2007, 19, 52-61.	1.7	6
70	Acetyl-CoA Carboxylase Inhibitor CP640.186 Increases Tubulin Acetylation and Impairs Thrombin-Induced Platelet Aggregation. International Journal of Molecular Sciences, 2021, 22, 13129.	1.8	4
71	Î±-Tubulin acetylation on lysine 40 controls cardiac glucose uptake. American Journal of Physiology - Heart and Circulatory Physiology, 2022, 322, H1032-H1043.	1.5	3
72	Even is better than odd: one fat may conceal another. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H1112-H1114.	1.5	1

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73	Principles in the Regulation of Cardiac Metabolism. , 2016, , 57-71.		1
74	You â€˜heartâ€™ what you eat!. Cardiovascular Research, 2021, 117, 2294-2296.	1.8	1
75	Letter by FertÃ©, <i>et al</i>. Regarding Article, "Chronic Pressure Overload Induces Cardiac Hypertrophy and Fibrosis via Increases in SGLT1 and IL-18 Gene Expression in Mice". International Heart Journal, 2022, 63, 184-186.	0.5	1
76	Glucose Uptake and Its Consequence on Cardiomyocyte Function. , 2015, , 147-155.		0
77	A new degree of complexi(n)ty in the regulation of GLUT4 trafficking. Biochemical Journal, 2021, 478, 1315-1319.	1.7	0
78	AMPâ€activated protein kinase activation is associated with an inhibition of fibrotic properties of cardiac fibroblasts. FASEB Journal, 2012, 26, 1059.15.	0.2	0