Bruno Guigas

List of Publications by Citations

97 papers	6,874 citations	38 h-index	82 g-index
112 ext. papers	7,986 ext. citations	5.5 avg, IF	5.79 L-index

#	Paper	IF	Citations
97	Cellular and molecular mechanisms of metformin: an overview. *Clinical Science*, **2012**, 122, 253-70	6.5	1094
96	Metformin: from mechanisms of action to therapies. *Cell Metabolism*, **2014**, 20, 953-66	24.6	715
95	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	3.9	394
94	AMP-activated protein kinase in the regulation of hepatic energy metabolism: from physiology to therapeutic perspectives. *Acta Physiologica*, **2009**, 196, 81-98	5.6	334
93	AMPK: Lessons from transgenic and knockout animals. *Frontiers in Bioscience - Landmark*, **2009**, 14, 19-44	2.8	221
92	The ROS production induced by a reverse-electron flux at respiratory-chain complex 1 is hampered by metformin. *Journal of Bioenergetics and Biomembranes*, **2006**, 38, 33-42	3.7	205
91	Metformin prevents high-glucose-induced endothelial cell death through a mitochondrial permeability transition-dependent process. *Diabetes*, **2005**, 54, 2179-87	0.9	197
90	Metformin activates AMP-activated protein kinase in primary human hepatocytes by decreasing cellular energy status. *Diabetologia*, **2011**, 54, 3101-10	10.3	187
89	Understanding the glucoregulatory mechanisms of metformin in type 2 diabetes mellitus. *Nature Reviews Endocrinology*, **2019**, 15, 569-589	15.2	183
88	Neuroprotective role of antidiabetic drug metformin against apoptotic cell death in primary cortical neurons. *Journal of Molecular Neuroscience*, **2008**, 34, 77-87	3.3	170
87	5-Aminoimidazole-4-carboxamide-1-beta-D-ribofuranoside and metformin inhibit hepatic glucose phosphorylation by an AMP-activated protein kinase-independent effect on glucokinase translocation. *Diabetes*, **2006**, 55, 865-74	0.9	159
86	Role of AMP kinase and PPARdelta in the regulation of lipid and glucose metabolism in human skeletal muscle. *Journal of Biological Chemistry*, **2007**, 282, 19313-20	5.4	141
85	Chronic helminth infection and helminth-derived egg antigens promote adipose tissue M2 macrophages and improve insulin sensitivity in obese mice. *FASEB Journal*, **2015**, 29, 3027-39	0.9	123
84	Metformin inhibits mitochondrial permeability transition and cell death: a pharmacological in vitro study. *Biochemical Journal*, **2004**, 382, 877-84	3.8	122
83	Role of Mitochondria in the Mechanism(s) of Action of Metformin. *Frontiers in Endocrinology*, **2019**, 10, 294	5.7	112
82	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, H239-50	5.2	109
81	Metformin lowers plasma triglycerides by promoting VLDL-triglyceride clearance by brown adipose tissue in mice. *Diabetes*, **2014**, 63, 880-91	0.9	106

80	Mitochondrial metabolism and type-2 diabetes: a specific target of metformin. *Diabetes and Metabolism*, **2003**, 29, 6S88-94	5.4	95
79	A gene variant near ATM is significantly associated with metformin treatment response in type 2 diabetes: a replication and meta-analysis of five cohorts. *Diabetologia*, **2012**, 55, 1971-7	10.3	92
78	AMP-activated protein kinase-independent inhibition of hepatic mitochondrial oxidative phosphorylation by AICA riboside. *Biochemical Journal*, **2007**, 404, 499-507	3.8	92
77	Interleukin-33-Activated Islet-Resident Innate Lymphoid Cells Promote Insulin Secretion through Myeloid Cell Retinoic Acid Production. *Immunity*, **2017**, 47, 928-942.e7	32.3	86
76	Gene expression analysis of mTOR pathway: association with human longevity. *Aging Cell*, **2013**, 12, 24-31	5.9	85
75	Cryopreservation of human hepatocytes alters the mitochondrial respiratory chain complex 1. *Cell Transplantation*, **2007**, 16, 409-19	4	80
74	The SWI/SNF chromatin-remodeling complex subunit SNF5 is essential for hepatocyte differentiation. *EMBO Journal*, **2005**, 24, 3313-24	13	77
73	Beyond AICA riboside: in search of new specific AMP-activated protein kinase activators. *IUBMB Life* , **2009**, 61, 18-26	4.7	75
72	AMP-activated protein kinase phosphorylates and inactivates liver glycogen synthase. *Biochemical Journal*, **2012**, 443, 193-203	3.8	75
71	Environmental 24-hr Cycles Are Essential for Health. *Current Biology*, **2016**, 26, 1843-53	6.3	73
70	Obligatory role of membrane events in the regulatory effect of metformin on the respiratory chain function. *Biochemical Pharmacology*, **2002**, 63, 1259-72	6	72
69	Peripheral cannabinoid 1 receptor blockade activates brown adipose tissue and diminishes dyslipidemia and obesity. *FASEB Journal*, **2014**, 28, 5361-75	0.9	68
68	The degree of liver injury determines the role of p21 in liver regeneration and hepatocarcinogenesis in mice. *Hepatology*, **2013**, 58, 1143-52	11.2	65
67	The CTRB1/2 locus affects diabetes susceptibility and treatment via the incretin pathway. *Diabetes*, **2013**, 62, 3275-81	0.9	63
66	Phosphorylation of PRAS40 on Thr246 by PKB/AKT facilitates efficient phosphorylation of Ser183 by mTORC1. *Cellular Signalling*, **2010**, 22, 961-7	4.9	63
65	CD24(hi)CD27(+) B cells from patients with allergic asthma have impaired regulatory activity in response to lipopolysaccharide. *Clinical and Experimental Allergy*, **2014**, 44, 517-28	4.1	60
64	The dopamine receptor D2 agonist bromocriptine inhibits glucose-stimulated insulin secretion by direct activation of the alpha2-adrenergic receptors in beta cells. *Biochemical Pharmacology*, **2010**, 79, 1827-36	6	53
63	A 5-day high-fat, high-calorie diet impairs insulin sensitivity in healthy, young South Asian men but not in Caucasian men. *Diabetes*, **2014**, 63, 248-58	0.9	48

62	Infection with Soil-Transmitted Helminths Is Associated with Increased Insulin Sensitivity. *PLoS ONE* , **2015**, 10, e0127746	3.7	47
61	Chronic Intermittent Hypoxia Impairs Insulin Sensitivity but Improves Whole-Body Glucose Tolerance by Activating Skeletal Muscle AMPK. *Diabetes*, **2017**, 66, 2942-2951	0.9	45
60	The flavonoid silibinin decreases glucose-6-phosphate hydrolysis in perfused rat hepatocytes by an inhibitory effect on glucose-6-phosphatase. *Cellular Physiology and Biochemistry*, **2007**, 20, 925-34	3.9	39
59	Salsalate activates brown adipose tissue in mice. *Diabetes*, **2015**, 64, 1544-54	0.9	34
58	High levels of dietary stearate promote adiposity and deteriorate hepatic insulin sensitivity. *Nutrition and Metabolism*, **2010**, 7, 24	4.6	34
57	Effects of prolonged fasting on AMPK signaling, gene expression, and mitochondrial respiratory chain content in skeletal muscle from lean and obese individuals. *American Journal of Physiology - Endocrinology and Metabolism*, **2013**, 304, E1012-21	6	33
56	Prednisolone-induced beta cell dysfunction is associated with impaired endoplasmic reticulum homeostasis in INS-1E cells. *Cellular Signalling*, **2011**, 23, 1708-15	4.9	33
55	A worm of one's own: how helminths modulate host adipose tissue function and metabolism. *Trends in Parasitology*, **2015**, 31, 435-41	6.4	32
54	Prevention of steatohepatitis by pioglitazone: implication of adiponectin-dependent inhibition of SREBP-1c and inflammation. *Journal of Hepatology*, **2009**, 50, 489-500	13.4	32
53	Hepatocyte-specific IKK□expression aggravates atherosclerosis development in APOE*3-Leiden mice. *Atherosclerosis*, **2012**, 220, 362-8	3.1	30
52	AMPK-ACC signaling modulates platelet phospholipids and potentiates thrombus formation. *Blood*, **2018**, 132, 1180-1192	2.2	29
51	Priming dendritic cells for th2 polarization: lessons learned from helminths and implications for metabolic disorders. *Frontiers in Immunology*, **2014**, 5, 499	8.4	29
50	Helminth infections and type 2 diabetes: a cluster-randomized placebo controlled SUGARSPIN trial in Nangapanda, Flores, Indonesia. *BMC Infectious Diseases*, **2015**, 15, 133	4	28
49	Short-term high-fat diet increases macrophage markers in skeletal muscle accompanied by impaired insulin signalling in healthy male subjects. *Clinical Science*, **2015**, 128, 143-51	6.5	27
48	Impact of Metformin and compound C on NIS expression and iodine uptake in vitro and in vivo: a role for CRE in AMPK modulation of thyroid function. *Thyroid*, **2014**, 24, 78-87	6.2	27
47	Rapamycin and omega-1: mTOR-dependent and -independent Th2 skewing by human dendritic cells. *Immunology and Cell Biology*, **2013**, 91, 486-9	5	26
46	Targeting AMPK: From Ancient Drugs to New Small-Molecule Activators. *Exs*, **2016**, 107, 327-350		23
45	Regulation of skeletal muscle energy/nutrient-sensing pathways during metabolic adaptation to fasting in healthy humans. *American Journal of Physiology - Endocrinology and Metabolism*, **2014**, 307, E885-95	6	23

44	Development of hepatic fibrosis occurs normally in AMPK-deficient mice. *Clinical Science*, **2009**, 118, 411-20	6.5	23
43	Immune Regulation of Metabolic Homeostasis by Helminths and Their Molecules. *Trends in Parasitology*, **2019**, 35, 795-808	6.4	22
42	Glucocorticoid treatment impairs microvascular function in healthy men in association with its adverse effects on glucose metabolism and blood pressure: a randomised controlled trial. *Diabetologia*, **2013**, 56, 2383-91	10.3	22
41	Stimulatory effect of insulin on glucose uptake by muscle involves the central nervous system in insulin-sensitive mice. *Diabetes*, **2011**, 60, 3132-40	0.9	21
40	Hypoxia-inducible factor prolyl hydroxylase 1 (PHD1) deficiency promotes hepatic steatosis and liver-specific insulin resistance in mice. *Scientific Reports*, **2016**, 6, 24618	4.9	21
39	High expression of thyroid hormone receptors and mitochondrial glycerol-3-phosphate dehydrogenase in the liver is linked to enhanced fatty acid oxidation in Lou/C, a rat strain resistant to obesity. *Journal of Biological Chemistry*, **2009**, 284, 4308-16	5.4	20
38	Hepatocyte-specific IKK-β activation enhances VLDL-triglyceride production in APOE*3-Leiden mice. *Journal of Lipid Research*, **2011**, 52, 942-50	6.3	19
37	Circulating insulin stimulates fatty acid retention in white adipose tissue via KATP channel activation in the central nervous system only in insulin-sensitive mice. *Journal of Lipid Research*, **2011**, 52, 1712-22	6.3	18
36	A single day of high-fat diet feeding induces lipid accumulation and insulin resistance in brown adipose tissue in mice. *American Journal of Physiology - Endocrinology and Metabolism*, **2019**, 317, E820-E830	6	17
35	Glucose 6-phosphate hydrolysis is activated by glucagon in a low temperature-sensitive manner. *Journal of Biological Chemistry*, **2001**, 276, 28126-33	5.4	17
34	Lack of starvation-induced activation of AMP-activated protein kinase in the hypothalamus of the Lou/C rats resistant to obesity. *International Journal of Obesity*, **2008**, 32, 639-47	5.5	16
33	The insulin sensitizing effect of topiramate involves KATP channel activation in the central nervous system. *British Journal of Pharmacology*, **2013**, 170, 908-18	8.6	14
32	Dietary yeast-derived mannan oligosaccharides have immune-modulatory properties but do not improve high fat diet-induced obesity and glucose intolerance. *PLoS ONE*, **2018**, 13, e0196165	3.7	11
31	The helminth glycoprotein omega-1 improves metabolic homeostasis in obese mice through type 2 immunity-independent inhibition of food intake. *FASEB Journal*, **2021**, 35, e21331	0.9	11
30	Sex-specific effects of naturally occurring variants in the dopamine receptor D2 locus on insulin secretion and type 2 diabetes susceptibility. *Diabetic Medicine*, **2014**, 31, 1001-8	3.5	10
29	Direct AMPK Activation Corrects NASH in Rodents Through Metabolic Effects and Direct Action on Inflammation and Fibrogenesis. *Hepatology Communications*, **2021**,	6	10
28	Chronic treatment with olanzapine increases adiposity by changing fuel substrate and causes desensitization of the acute metabolic side effects. *Naunyn-Schmiedeberg's Archives of Pharmacology*, **2014**, 387, 185-95	3.4	9
27	Metabolic and hormonal responses to exercise in the anti-obese Lou/C rats. *International Journal of Obesity*, **2004**, 28, 972-8	5.5	9

26	Fluid-regulatory hormone responses during cycling exercise in acute hypobaric hypoxia. *Medicine and Science in Sports and Exercise*, **2004**, 36, 1730-6	1.2	9
25	Schistosoma haematobium infection is associated with lower serum cholesterol levels and improved lipid profile in overweight/obese individuals. *PLoS Neglected Tropical Diseases*, **2020**, 14, e0008464	4.8	8
24	Lipid droplet dynamics and insulin sensitivity upon a 5-day high-fat diet in Caucasians and South Asians. *Scientific Reports*, **2017**, 7, 42393	4.9	7
23	Glucose availability but not changes in pancreatic hormones sensitizes hepatic AMPK activity during nutritional transition in rodents. *Journal of Biological Chemistry*, **2020**, 295, 5836-5849	5.4	7
22	A novel nutritional supplement prevents muscle loss and accelerates muscle mass recovery in caloric-restricted mice. *Metabolism: Clinical and Experimental*, **2019**, 97, 57-67	12.7	6
21	Prednisolone induces the Wnt signalling pathway in 3T3-L1 adipocytes. *Archives of Physiology and Biochemistry*, **2013**, 119, 52-64	2.2	6
20	Determination of Adenine Nucleotide Concentrations in Cells and Tissues by High-Performance Liquid Chromatography. *Methods in Molecular Biology*, **2018**, 1732, 229-237	1.4	5
19	Liver mitochondrial properties from the obesity-resistant Lou/C rat. *International Journal of Obesity* , **2008**, 32, 629-38	5.5	5
18	The Mannose Receptor: From Endocytic Receptor and Biomarker to Regulator of (Meta)Inflammation. *Frontiers in Immunology*, **2021**, 12, 765034	8.4	5
17	Impact of rural-urban environment on metabolic profile and response to a 5-day high-fat diet. *Scientific Reports*, **2018**, 8, 8149	4.9	5
16	Soluble mannose receptor induces proinflammatory macrophage activation and metaflammation. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	5
15	Platelet Acetyl-CoA Carboxylase Phosphorylation: A Risk Stratification Marker That Reveals Platelet-Lipid Interplay in Coronary Artery Disease Patients. *JACC Basic To Translational Science*, **2019**, 4, 596-610	8.7	4
14	Proline-rich Akt substrate of 40-kDa contains a nuclear export signal. *Cellular Signalling*, **2013**, 25, 1762-8	4.9	4
13	Endoplasmic Reticulum-Mitochondria Crosstalk and Beta-Cell Destruction in Type 1 Diabetes. *Frontiers in Immunology*, **2021**, 12, 669492	8.4	4
12	Myeloid ATP Citrate Lyase Regulates Macrophage Inflammatory Responses Without Altering Inflammatory Disease Outcomes. *Frontiers in Immunology*, **2021**, 12, 669920	8.4	3
11	Effects of Totum-63 on glucose homeostasis and postprandial glycemia: a translational study. *American Journal of Physiology - Endocrinology and Metabolism*, **2021**, 320, E1119-E1137	6	3
10	Assessing Mitochondrial Bioenergetics by Respirometry in Cells or Isolated Organelles. *Methods in Molecular Biology*, **2018**, 1732, 273-287	1.4	1
9	The helminth glycoprotein omega-1 improves metabolic homeostasis in obese mice through type-2 immunity-independent inhibition of food intake		1

8	Effects of a novel polyphenol-rich plant extract on body composition, inflammation, insulin sensitivity, and glucose homeostasis in obese mice. *International Journal of Obesity*, **2021**, 45, 2016-2027	5.5	1
7	Middle-aged overweight South Asian men exhibit a different metabolic adaptation to short-term energy restriction compared with Europeans. *Diabetologia*, **2015**, 58, 165-77	10.3	0
6	PS13 - 5. Protective effect of chronic helminth infection against diet-induced obesity. *Nederlands Tijdschrift Voor Diabetologie*, **2013**, 11, 193-194	0	
5	PS14 - 73. Effect of fasting on energy- and nutrient-sensing pathways in human skeletal muscle. *Nederlands Tijdschrift Voor Diabetologie*, **2011**, 9, 140-140	0	
4	Schistosoma haematobium infection is associated with lower serum cholesterol levels and improved lipid profile in overweight/obese individuals **2020**, 14, e0008464		
3	Schistosoma haematobium infection is associated with lower serum cholesterol levels and improved lipid profile in overweight/obese individuals **2020**, 14, e0008464		
2	Schistosoma haematobium infection is associated with lower serum cholesterol levels and improved lipid profile in overweight/obese individuals **2020**, 14, e0008464		
1	Schistosoma haematobium infection is associated with lower serum cholesterol levels and improved lipid profile in overweight/obese individuals **2020**, 14, e0008464		