Gary W Cline

List of Publications by Year
in descending order

89 papers	14,484 citations	47006 47 h-index	46799 89 g-index
91 all docs	91 docs citations	91 times ranked	20934 citing authors

#	Article	IF	Citations
1	Sexâ€•and strainâ€•specific effects of mitochondrial uncoupling on ageâ€•related metabolic diseases in highâ€•fat dietâ€•fed mice. Aging Cell, 2022, 21, e13539.	6.7	11
2	Metformin, phenformin, and galegine inhibit complex IV activity and reduce glycerol-derived gluconeogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2122287119.	7.1	37
3	Hepatic Insulin Resistance Is Not Pathway Selective in Humans With Nonalcoholic Fatty Liver Disease. Diabetes Care, 2021, 44, 489-498.	8.6	42
4	Validation of a Gas Chromatography-Mass Spectrometry Method for the Measurement of the Redox State Metabolic Ratios Lactate/Pyruvate and Î²-Hydroxybutyrate/Acetoacetate in Biological Samples. International Journal of Molecular Sciences, 2021, 22, 4752.	4.1	7
5	Colonic Fermentation and Acetate Production in Youth with and without Obesity. Journal of Nutrition, 2021, 151, 3292-3298.	2.9	4
6	MMAB promotes negative feedback control of cholesterol homeostasis. Nature Communications, 2021, 12, 6448.	12.8	10
7	PET Imaging of Pancreatic Dopamine D₂ and D₃ Receptor Density with ¹¹C-(+)-PHNO in Type 1 Diabetes. Journal of Nuclear Medicine, 2020, 61, 570-576.	5.0	19
8	Dissociation of Muscle Insulin Resistance from Alterations in Mitochondrial Substrate Preference. Cell Metabolism, 2020, 32, 726-735.e5.	16.2	27
9	A Membrane-Bound Diacylglycerol Species Induces PKCÏµ-Mediated Hepatic Insulin Resistance. Cell Metabolism, 2020, 32, 654-664.e5.	16.2	83
10	Membrane-bound sn-1,2-diacylglycerols explain the dissociation of hepatic insulin resistance from hepatic steatosis in MTTP knockout mice. Journal of Lipid Research, 2020, 61, 1565-1576.	4.2	15
11	Glucagon stimulates gluconeogenesis by INSP3R1-mediated hepatic lipolysis. Nature, 2020, 579, 279-283.	27.8	110
12	Metabolic control analysis of hepatic glycogen synthesis in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 8166-8176.	7.1	51
13	Effect of a ketogenic diet on hepatic steatosis and hepatic mitochondrial metabolism in nonalcoholic fatty liver disease. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7347-7354.	7.1	137
14	The effects of increased acetate turnover on glucose-induced insulin secretion in lean and obese humans. Journal of Clinical and Translational Science, 2019, 3, 18-20.	0.6	13
15	Adaptive Protein Translation by the Integrated Stress Response Maintains the Proliferative and Migratory Capacity of Lung Adenocarcinoma Cells. Molecular Cancer Research, 2019, 17, 2343-2355.	3.4	13
16	Controlled-release mitochondrial protonophore (CRMP) reverses dyslipidemia and hepatic steatosis in dysmetabolic nonhuman primates. Science Translational Medicine, 2019, 11, .	12.4	44
17	Antiâ€inflammatory effects of oestrogen mediate the sexual dimorphic response to lipidâ€induced insulin resistance. Journal of Physiology, 2019, 597, 3885-3903.	2.9	48
18	A Forward Chemical Genetic Screen Reveals Gut Microbiota Metabolites That Modulate Host Physiology. Cell, 2019, 177, 1217-1231.e18.	28.9	221

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19	A role for foregut tyrosine metabolism in glucose tolerance. Molecular Metabolism, 2019, 23, 37-50.	6.5	29
20	Adipose glucocorticoid action influences wholeâ€body metabolismviamodulation of hepatic insulin action. FASEB Journal, 2019, 33, 8174-8185.	0.5	12
21	PEPCK1 Antisense Oligonucleotide Prevents Adiposity and Impairs Hepatic Glycogen Synthesis in High-Fat Male Fed Rats. Endocrinology, 2019, 160, 205-219.	2.8	6
22	Regulation of hepatic mitochondrial oxidation by glucose-alanine cycling during starvation in humans. Journal of Clinical Investigation, 2019, 129, 4671-4675.	8.2	45
23	In vivo studies on the mechanism of methylene cyclopropyl acetic acid and methylene cyclopropyl glycine-induced hypoglycemia. Biochemical Journal, 2018, 475, 1063-1074.	3.7	8
24	Evaluation of Pancreatic VMAT2 Binding with Active and Inactive Enantiomers of [18F]FP-DTBZ in Healthy Subjects and Patients with Type 1 Diabetes. Molecular Imaging and Biology, 2018, 20, 835-845.	2.6	24
25	Evaluation of PET Brain Radioligands for Imaging Pancreatic Î²-Cell Mass: Potential Utility of 11C-(+)-PHNO. Journal of Nuclear Medicine, 2018, 59, 1249-1254.	5.0	22
26	Leptin Mediates a Glucose-Fatty Acid Cycle to Maintain Glucose Homeostasis in Starvation. Cell, 2018, 172, 234-248.e17.	28.9	125
27	Decreased VMAT2 in the pancreas of humans with type 2 diabetes mellitus measured in vivo by PET imaging. Diabetologia, 2018, 61, 2598-2607.	6.3	18
28	Mechanisms by which a Very-Low-Calorie Diet Reverses Hyperglycemia in a Rat Model of Type 2 Diabetes. Cell Metabolism, 2018, 27, 210-217.e3.	16.2	71
29	Acetylâ€CoA Carboxylase Inhibition Reverses NAFLD and Hepatic Insulin Resistance but Promotes Hypertriglyceridemia in Rodents. Hepatology, 2018, 68, 2197-2211.	7.3	172
30	Metformin inhibits gluconeogenesis via a redox-dependent mechanism in vivo. Nature Medicine, 2018, 24, 1384-1394.	30.7	200
31	Clinical and scientific value in the pursuit of quantification of beta cells in the pancreas by PET imaging. Diabetologia, 2018, 61, 2671-2673.	6.3	6
32	A Non-invasive Method to Assess Hepatic Acetyl-CoA InÂVivo. Cell Metabolism, 2017, 25, 749-756.	16.2	30
33	Inter-relations between 3-hydroxypropionate and propionate metabolism in rat liver: relevance to disorders of propionyl-CoA metabolism. American Journal of Physiology - Endocrinology and Metabolism, 2017, 313, E413-E428.	3.5	33
34	Non-invasive assessment of hepatic mitochondrial metabolism by positional isotopomer NMR tracer analysis (PINTA). Nature Communications, 2017, 8, 798.	12.8	45
35	Paraoxonase 2 Facilitates Pancreatic Cancer Growth and Metastasis by Stimulating GLUT1-Mediated Glucose Transport. Molecular Cell, 2017, 67, 685-701.e6.	9.7	105
36	Lanosterol Modulates TLR4-Mediated Innate Immune Responses in Macrophages. Cell Reports, 2017, 19, 2743-2755.	6.4	79

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37	Reduced intestinal lipid absorption and body weight-independent improvements in insulin sensitivity in high-fat diet-fed Park2 knockout mice. American Journal of Physiology - Endocrinology and Metabolism, 2016, 311, E105-E116.	3.5	12
38	Altered Brain Response to Drinking Glucose and Fructose in Obese Adolescents. Diabetes, 2016, 65, 1929-1939.	0.6	69
39	Evaluation of pancreatic VMAT2 binding with active and inactive enantiomers of 18 F-FP-DTBZ in baboons. Nuclear Medicine and Biology, 2016, 43, 743-751.	0.6	20
40	Role of Gut Microbiota and Short Chain Fatty Acids in Modulating Energy Harvest and Fat Partitioning in Youth. Journal of Clinical Endocrinology and Metabolism, 2016, 101, 4367-4376.	3.6	124
41	Acetate mediates a microbiomeâ€“brainâ€“Î²-cell axis to promote metabolic syndrome. Nature, 2016, 534, 213-217.	27.8	990
42	Hypophosphatemia promotes lower rates of muscle ATP synthesis. FASEB Journal, 2016, 30, 3378-3387.	0.5	70
43	Argininosuccinate synthetase regulates hepatic AMPK linking protein catabolism and ureagenesis to hepatic lipid metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E3423-30.	7.1	45
44	Propionate Increases Hepatic Pyruvate Cycling and Anaplerosis and Alters Mitochondrial Metabolism. Journal of Biological Chemistry, 2016, 291, 12161-12170.	3.4	58
45	Insulin-independent regulation of hepatic triglyceride synthesis by fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1143-1148.	7.1	176
46	Hepatic Acetyl CoA Links Adipose Tissue Inflammation to Hepatic Insulin Resistance and Type 2 Diabetes. Cell, 2015, 160, 745-758.	28.9	547
47	Integrated, Step-Wise, Mass-Isotopomeric Flux Analysis of the TCA Cycle. Cell Metabolism, 2015, 22, 936-947.	16.2	106
48	Effect of aging on muscle mitochondrial substrate utilization in humans. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11330-11334.	7.1	72
49	Neuregulin-activated ERBB4 induces the SREBP-2 cholesterol biosynthetic pathway and increases low-density lipoprotein uptake. Science Signaling, 2015, 8, ra111.	3.6	59
50	Fructose Levels Are Markedly Elevated in Cerebrospinal Fluid Compared to Plasma in Pregnant Women. PLoS ONE, 2015, 10, e0128582.	2.5	22
51	Direct assessment of hepatic mitochondrial oxidative and anaplerotic fluxes in humans using dynamic 13C magnetic resonance spectroscopy. Nature Medicine, 2014, 20, 98-102.	30.7	80
52	Metformin suppresses gluconeogenesis by inhibiting mitochondrial glycerophosphate dehydrogenase. Nature, 2014, 510, 542-546.	27.8	989
53	Functional polarization of tumour-associated macrophages by tumour-derived lactic acid. Nature, 2014, 513, 559-563.	27.8	2,025
54	Leptin reverses diabetes by suppression of the hypothalamic-pituitary-adrenal axis. Nature Medicine, 2014, 20, 759-763.	30.7	178

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55	Regulation of Hepatic Energy Metabolism and Gluconeogenesis by BAD. Cell Metabolism, 2014, 19, 272-284.	16.2	67
56	Mitochondrial phosphate transport during nutrient stimulation of INS-1E insulinoma cells. Molecular and Cellular Endocrinology, 2013, 381, 198-209.	3.2	11
57	Reversal of Hypertriglyceridemia, Fatty Liver Disease, and Insulin Resistance by a Liver-Targeted Mitochondrial Uncoupler. Cell Metabolism, 2013, 18, 740-748.	16.2	190
58	Differences in glucoseâ€stimulated insulin secretion in vitro of islets from human, nonhuman primate, and porcine origin. Xenotransplantation, 2013, 20, 75-81.	2.8	56
59	CGI-58 knockdown sequesters diacylglycerols in lipid droplets/ER-preventing diacylglycerol-mediated hepatic insulin resistance. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1869-1874.	7.1	137
60	CT-PET weighted image fusion for separately scanned whole body rat. Medical Physics, 2012, 39, 533-542.	3.0	18
61	In Vivo Imaging of Endogenous Pancreatic Î²-Cell Mass in Healthy and Type 1 Diabetic Subjects Using ¹⁸F-Fluoropropyl-Dihydrotetrabenazine and PET. Journal of Nuclear Medicine, 2012, 53, 908-916.	5.0	108
62	Imaging of pancreatic Î²-cell mass by PET. Diabetes Management, 2012, 2, 111-118.	0.5	0
63	Synthesis and evaluation of [18F]exendin (9â€“39) as a potential biomarker to measure pancreatic Î²-cell mass. Nuclear Medicine and Biology, 2012, 39, 167-176.	0.6	49
64	Islet-selectivity of G-protein coupled receptor ligands evaluated for PET imaging of pancreatic Î²-cell mass. Biochemical and Biophysical Research Communications, 2011, 412, 413-418.	2.1	22
65	Rates of insulin secretion in INS-1 cells are enhanced by coupling to anaplerosis and Krebâ€™s cycle flux independent of ATP synthesis. Biochemical and Biophysical Research Communications, 2011, 415, 30-35.	2.1	17
66	Fuel-Stimulated Insulin Secretion Depends upon Mitochondria Activation and the Integration of Mitochondrial and Cytosolic Substrate Cycles. Diabetes and Metabolism Journal, 2011, 35, 458.	4.7	9
67	Paramagnetic microparticles do not elicit islet cytotoxicity with coâ€culture or host immune reactivity after implantation. Xenotransplantation, 2011, 18, 239-244.	2.8	3
68	Pancreatic Beta Cell Mass PET Imaging and Quantification with [11C]DTBZ and [18F]FP-(+)-DTBZ in Rodent Models of Diabetes. Molecular Imaging and Biology, 2011, 13, 973-984.	2.6	54
69	Re-patterning of Skeletal Muscle Energy Metabolism by Fat Storage-inducing Transmembrane Protein 2. Journal of Biological Chemistry, 2011, 286, 42188-42199.	3.4	28
70	Î²-Cell-specific pyruvate dehydrogenase deficiency impairs glucose-stimulated insulin secretion. American Journal of Physiology - Endocrinology and Metabolism, 2010, 299, E910-E917.	3.5	31
71	Mitochondrial Dysfunction Contributes to Impaired Insulin Secretion in INS-1 Cells with Dominant-negative Mutations of HNF-1Î± and in HNF-1Î±-deficient Islets. Journal of Biological Chemistry, 2009, 284, 16808-16821.	3.4	27
72	Chapter 24 Investigating the Roles of Mitochondrial and Cytosolic Malic Enzyme in Insulin Secretion. Methods in Enzymology, 2009, 457, 425-450.	1.0	11

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73	Phosphoenolpyruvate Cycling via Mitochondrial Phosphoenolpyruvate Carboxykinase Links Anaplerosis and Mitochondrial GTP with Insulin Secretion. Journal of Biological Chemistry, 2009, 284, 26578-26590.	3.4	126
74	Liver-specific Loss of Long Chain Acyl-CoA Synthetase-1 Decreases Triacylglycerol Synthesis and Î²-Oxidation and Alters Phospholipid Fatty Acid Composition. Journal of Biological Chemistry, 2009, 284, 27816-27826.	3.4	188
75	Matrix alkalinization: a novel mitochondrial signal for sustained pancreatic Î²-cell activation. EMBO Journal, 2009, 28, 417-428.	7.8	66
76	Cytosolic and Mitochondrial Malic Enzyme Isoforms Differentially Control Insulin Secretion. Journal of Biological Chemistry, 2007, 282, 200-207.	3.4	123
77	Mitochondrial GTP Regulates Glucose-Stimulated Insulin Secretion. Cell Metabolism, 2007, 5, 253-264.	16.2	143
78	13C NMR Isotopomer Analysis of Anaplerotic Pathways in INS-1 Cells. Journal of Biological Chemistry, 2004, 279, 44370-44375.	3.4	113
79	In vivo13Câ€ƒNMR measurement of neurotransmitter glutamate cycling, anaplerosis and TCA cycle flux in rat brain during [2-13C]glucose infusion. Journal of Neurochemistry, 2003, 76, 975-989.	3.9	229
80	Mitochondrial Dysfunction in the Elderly: Possible Role in Insulin Resistance. Science, 2003, 300, 1140-1142.	12.6	1,848
81	Mechanism by Which Fatty Acids Inhibit Insulin Activation of Insulin Receptor Substrate-1 (IRS-1)-associated Phosphatidylinositol 3-Kinase Activity in Muscle. Journal of Biological Chemistry, 2002, 277, 50230-50236.	3.4	1,254
82	Effects of a Novel Glycogen Synthase Kinase-3 Inhibitor on Insulin-Stimulated Glucose Metabolism in Zucker Diabetic Fatty (fa/fa) Rats. Diabetes, 2002, 51, 2903-2910.	0.6	214
83	Leptin reverses insulin resistance and hepatic steatosis in patients with severe lipodystrophy. Journal of Clinical Investigation, 2002, 109, 1345-1350.	8.2	552
84	Leptin reverses insulin resistance and hepatic steatosis in patients with severe lipodystrophy. Journal of Clinical Investigation, 2002, 109, 1345-1350.	8.2	373
85	In Vivo Effects of Uncoupling Protein-3 Gene Disruption on Mitochondrial Energy Metabolism. Journal of Biological Chemistry, 2001, 276, 20240-20244.	3.4	124
86	NMR Spectroscopy in Î² Cell Engineering and Islet Transplantation. Annals of the New York Academy of Sciences, 2001, 944, 96-119.	3.8	35
87	Intense exercise stimulates albumin synthesis in the upright posture. Journal of Applied Physiology, 2000, 88, 41-46.	2.5	59
88	Impaired Glucose Transport as a Cause of Decreased Insulin-Stimulated Muscle Glycogen Synthesis in Type 2 Diabetes. New England Journal of Medicine, 1999, 341, 240-246.	27.0	562
89	13C and 31P NMR Studies on the Effects of Increased Plasma Free Fatty Acids on Intramuscular Glucose Metabolism in the Awake Rat. Journal of Biological Chemistry, 1997, 272, 10464-10473.	3.4	71