Barbara E Corkey

List of Publications by Year in descending order

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30047 27389 11,779 124 54 106 citations h-index g-index papers 125 125 125 14261 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Fission and selective fusion govern mitochondrial segregation and elimination by autophagy. EMBO Journal, 2008, 27, 433-446.	3.5	2,587
2	[65] Assays of intermediates of the citric acid cycle and related compounds by fluorometric enzyme methods. Methods in Enzymology, 1969, , 434-513.	0.4	664
3	Reactive Oxygen Species as a Signal in Glucose-Stimulated Insulin Secretion. Diabetes, 2007, 56, 1783-1791.	0.3	469
4	Mitochondria Bound to Lipid Droplets Have Unique Bioenergetics, Composition, and Dynamics that Support Lipid Droplet Expansion. Cell Metabolism, 2018, 27, 869-885.e6.	7.2	359
5	Mitochondrial Networking Protects \hat{I}^2 -Cells From Nutrient-Induced Apoptosis. Diabetes, 2009, 58, 2303-2315.	0.3	339
6	ROS signaling, oxidative stress and Nrf2 in pancreatic beta-cell function. Toxicology and Applied Pharmacology, 2010, 244, 77-83.	1.3	291
7	Dual role of proapoptotic BAD in insulin secretion and beta cell survival. Nature Medicine, 2008, 14, 144-153.	15.2	285
8	Banting Lecture 2011. Diabetes, 2012, 61, 4-13.	0.3	247
9	The Time Is Right for a New Classification System for Diabetes: Rationale and Implications of the \hat{l}^2 -Cellâ \in "Centric Classification Schema. Diabetes Care, 2016, 39, 179-186.	4.3	244
10	Fatty acid metabolism and insulin secretion in pancreatic beta cells. Diabetologia, 2003, 46, 1297-1312.	2.9	213
11	\hat{l}^2 3-Adrenergic Receptors on White and Brown Adipocytes Mediate \hat{l}^2 3-Selective Agonist-induced Effects on Energy Expenditure, Insulin Secretion, and Food Intake. Journal of Biological Chemistry, 1997, 272, 17686-17693.	1.6	200
12	Hormone-induced mitochondrial fission is utilized by brown adipocytes as an amplification pathway for energy expenditure. EMBO Journal, 2014, 33, n/a-n/a.	3.5	185
13	Persistent Oxidative Stress Due to Absence of Uncoupling Protein 2 Associated with Impaired Pancreatic β-Cell Function. Endocrinology, 2009, 150, 3040-3048.	1.4	156
14	Acute Stimulation with Long Chain Acyl-CoA Enhances Exocytosis in Insulin-secreting Cells (HIT T-15) Tj ETQq0 C	O rgBT /O	verlock 10 Tf
15	The Role of Long-Chain Fatty Acyl-CoA Esters in β-Cell Signal Transduction. Journal of Nutrition, 2000, 130, 299S-304S.	1.3	147
16	Activation of the ATP-sensitive K+ Channel by Long Chain Acyl-CoA. Journal of Biological Chemistry, 1996, 271, 10623-10626.	1.6	146
17	[23] Assay of citric acid cycle intermediates and related compounds—Update with tissue metabolite levels and Intracellular Distribution. Methods in Enzymology, 1979, 55, 200-222.	0.4	136
18	Increased Î ² -Oxidation in Muscle Cells Enhances Insulin-stimulated Glucose Metabolism and Protects against Fatty Acid-induced Insulin Resistance Despite Intramyocellular Lipid Accumulation. Journal of Biological Chemistry, 2004, 279, 27177-27186.	1.6	135

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19	Hyperinsulinemia: An Early Indicator of Metabolic Dysfunction. Journal of the Endocrine Society, 2019, 3, 1727-1747.	0.1	132
20	Metabolic control of 2-cell function. Seminars in Cell and Developmental Biology, 2000, 11, 267-275.	2.3	128
21	Induction by Glucose of Genes Coding for Glycolytic Enzymes in a Pancreatic Î ² -Cell Line (INS-1). Journal of Biological Chemistry, 1997, 272, 3091-3098.	1.6	123
22	Mechanism of Cloned ATP-sensitive Potassium Channel Activation by Oleoyl-CoA. Journal of Biological Chemistry, 1998, 273, 26383-26387.	1.6	119
23	Hyperinsulinemia: a Cause of Obesity?. Current Obesity Reports, 2017, 6, 178-186.	3.5	119
24	Temporal patterns of changes in ATP/ADP ratio, glucose 6-phosphate and cytoplasmic free Ca2+ in glucose-stimulated pancreatic \hat{l}^2 -cells. Biochemical Journal, 1996, 314, 91-94.	1.7	114
25	Fatty Acid Transport: The Diffusion Mechanism in Model and Biological Membranes. Journal of Molecular Neuroscience, 2001, 16, 99-108.	1.1	109
26	Rapid Flip-flop of Oleic Acid across the Plasma Membrane of Adipocytes. Journal of Biological Chemistry, 2003, 278, 7988-7995.	1.6	107
27	Glucoseâ€Dependent Insulinotropic Polypeptide Modulates Adipocyte Lipolysis and Reesterification. Obesity, 2006, 14, 1124-1131.	1.5	107
28	Mouse white adipocytes and 3T3-L1 cells display an anomalous pattern of carnitine palmitoyltransferase (CPT) I isoform expression during differentiation: Inter-tissue and inter-species expression of CPT I and CPT II enzymes. Biochemical Journal, 1997, 327, 225-231.	1.7	104
29	Î ² -Cell Mitochondria Exhibit Membrane Potential Heterogeneity That Can Be Altered by Stimulatory or Toxic Fuel Levels. Diabetes, 2007, 56, 2569-2578.	0.3	104
30	Glucose-Dependent Insulinotropic Polypeptide Enhances Adipocyte Development and Glucose Uptake in Part Through Akt Activation. Gastroenterology, 2007, 133, 1796-1805.	0.6	103
31	Mediumâ€Chain Oil Reduces Fat Mass and Downâ€regulates Expression of Adipogenic Genes in Rats. Obesity, 2003, 11, 734-744.	4.0	101
32	Temporal Profiling of the Secretome during Adipogenesis in Humans. Journal of Proteome Research, 2010, 9, 5228-5238.	1.8	100
33	Diabetes: Have We Got It All Wrong?. Diabetes Care, 2012, 35, 2432-2437.	4.3	98
34	The A2b Adenosine Receptor Modulates Glucose Homeostasis and Obesity. PLoS ONE, 2012, 7, e40584.	1.1	97
35	Fatty Acid Metabolites Combine with Reduced \hat{I}^2 Oxidation to Activate Th17 Inflammation in Human Type 2 Diabetes. Cell Metabolism, 2019, 30, 447-461.e5.	7.2	97
36	Long Chain Coenzyme A Esters Activate the Pore-forming Subunit (Kir6.2) of the ATP-regulated Potassium Channel. Journal of Biological Chemistry, 1998, 273, 31395-31400.	1.6	96

3

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37	Long-Chain Acyl CoA Regulation of Protein Kinase C and Fatty Acid Potentiation of Glucose-Stimulated Insulin Secretion in Clonal \hat{I}^2 -Cells1. Endocrinology, 2000, 141, 1989-1998.	1.4	96
38	Mfn2 deletion in brown adipose tissue protects from insulin resistance and impairs thermogenesis. EMBO Reports, 2017, 18, 1123-1138.	2.0	89
39	Succinate Is a Preferential Metabolic Stimulus-Coupling Signal for Glucose-Induced Proinsulin Biosynthesis Translation. Diabetes, 2002, 51, 2496-2504.	0.3	87
40	Effects of dietary medium-chain triglyceride on weight loss and insulin sensitivity in a group of moderately overweight free-living type 2 diabetic Chinese subjects. Metabolism: Clinical and Experimental, 2007, 56, 985-991.	1.5	85
41	Regulation of pancreatic \hat{l}^2 -cell mitochondrial metabolism: influence of Ca2+, substrate and ADP. Biochemical Journal, 1996, 318, 615-621.	1.7	82
42	[9] Analysis of acyl-coenzyme A esters in biological samples. Methods in Enzymology, 1988, 166, 55-70.	0.4	77
43	Fat depot origin affects fatty acid handling in cultured rat and human preadipocytes. American Journal of Physiology - Endocrinology and Metabolism, 2001, 280, E238-E247.	1.8	75
44	Glucose-dependent increase in mitochondrial membrane potential, but not cytoplasmic calcium, correlates with insulin secretion in single islet cells. American Journal of Physiology - Endocrinology and Metabolism, 2006, 290, E143-E148.	1.8	75
45	Evidence for a Unique Long Chain Acyl-CoA Ester Binding Site on the ATP-regulated Potassium Channel in Mouse Pancreatic Beta Cells. Journal of Biological Chemistry, 1997, 272, 17390-17394.	1.6	74
46	Respiration in Adipocytes is Inhibited by Reactive Oxygen Species. Obesity, 2010, 18, 1493-1502.	1.5	72
47	A Unified Pathophysiological Construct of Diabetes and its Complications. Trends in Endocrinology and Metabolism, 2017, 28, 645-655.	3.1	71
48	Metabolic Partitioning of Endogenous Fatty Acid in Adipocytes. Obesity, 2003, 11, 880-887.	4.0	69
49	Aging results in paradoxical susceptibility of fat cell progenitors to lipotoxicity. American Journal of Physiology - Endocrinology and Metabolism, 2007, 292, E1041-E1051.	1.8	68
50	Hormone-Sensitive Lipase Has a Role in Lipid Signaling for Insulin Secretion but Is Nonessential for the Incretin Action of Glucagon-Like Peptide 1. Diabetes, 2004, 53, 1733-1742.	0.3	67
51	BET Bromodomain Proteins Brd2, Brd3 and Brd4 Selectively Regulate Metabolic Pathways in the Pancreatic \hat{l}^2 -Cell. PLoS ONE, 2016, 11, e0151329.	1.1	65
52	A distinct difference in the metabolic stimulus–response coupling pathways for regulating proinsulin biosynthesis and insulin secretion that lies at the level of a requirement for fatty acyl moieties. Biochemical Journal, 1998, 331, 553-561.	1.7	61
53	Temporal sequence of metabolic and ionic events in glucose-stimulated clonal pancreatic \hat{l}^2 -cells (HIT). Biochemical Journal, 1996, 315, 1015-1019.	1.7	60
54	Lipid-associated metabolic signalling networks in pancreatic beta cell function. Diabetologia, 2020, 63, 10-20.	2.9	58

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55	Reactive Oxygen Species Stimulate Insulin Secretion in Rat Pancreatic Islets: Studies Using Mono-Oleoyl-Glycerol. PLoS ONE, 2012, 7, e30200.	1.1	57
56	Lipid rather than glucose metabolism is implicated in altered insulin secretion caused by oleate in INS-1 cells. American Journal of Physiology - Endocrinology and Metabolism, 1999, 277, E521-E528.	1.8	55
57	î²-Cell Failure or î²-Cell Abuse?. Frontiers in Endocrinology, 2018, 9, 532.	1.5	50
58	Reversible Ca2+-dependent Translocation of Protein Kinase C and Glucose-induced Insulin Release. Journal of Biological Chemistry, 1996, 271, 18154-18160.	1.6	48
59	Reactive Oxygen Species Facilitate Translocation of Hormone Sensitive Lipase to the Lipid Droplet During Lipolysis in Human Differentiated Adipocytes. PLoS ONE, 2012, 7, e34904.	1.1	48
60	Cyclic AMP raises cytosolic Ca2+and promotes Ca2+influx in a clonal pancreatic \hat{l}^2 -cell line (HIT T-15). FEBS Letters, 1987, 220, 103-107.	1.3	47
61	What Are We Putting in Our Food That Is Making Us Fat? Food Additives, Contaminants, and Other Putative Contributors to Obesity. Current Obesity Reports, 2014, 3, 273-285.	3. 5	47
62	Metabolic fate of glucose and candidate signaling and excess-fuel detoxification pathways in pancreatic \hat{l}^2 -cells. Journal of Biological Chemistry, 2017, 292, 7407-7422.	1.6	47
63	Selective activation of Ca2+ influx by extracellular ATP in a pancreatic \hat{l}^2 -cell line (HIT). Biochimica Et Biophysica Acta - Molecular Cell Research, 1989, 1012, 107-115.	1.9	46
64	Octanoate Attenuates Adipogenesis in 3T3-L1 Preadipocytes. Journal of Nutrition, 2002, 132, 904-910.	1.3	45
65	Metabolomicsâ€guided insights on bariatric surgery versus behavioral interventions for weight loss. Obesity, 2016, 24, 2451-2466.	1.5	45
66	Metabolic cycles and signals for insulin secretion. Cell Metabolism, 2022, 34, 947-968.	7.2	45
67	The CB1 Antagonist Rimonabant Decreases Insulin Hypersecretion in Rat Pancreatic Islets. Obesity, 2009, 17, 1856-1860.	1.5	44
68	Chronic Exposure to Excess Nutrients Left-shifts the Concentration Dependence of Glucose-stimulated Insulin Secretion in Pancreatic Î ² -Cells. Journal of Biological Chemistry, 2015, 290, 16191-16201.	1.6	44
69	Long-Chain Acyl CoA Regulation of Protein Kinase C and Fatty Acid Potentiation of Glucose-Stimulated Insulin Secretion in Clonal Â-Cells. Endocrinology, 2000, 141, 1989-1998.	1.4	41
70	Ca2+, NAD(P)H and membrane potential changes in pancreatic \hat{l}^2 -cells by methyl succinate: comparison with glucose. Biochemical Journal, 2007, 403, 197-205.	1.7	40
71	The L-type Voltage-Gated Ca ²⁺ Channel Is the Ca ²⁺ Sensor Protein of Stimulusâ Secretion Coupling in Pancreatic Beta Cells. Biochemistry, 2007, 46, 14461-14467.	1.2	40
72	Esterification of free fatty acids in adipocytes: a comparison between octanoate and oleate. Biochemical Journal, 2000, 349, 463-471.	1.7	34

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73	Regulation of Acetyl CoA Carboxylase and Carnitine Palmitoyl Transferaseâ€1 in Rat Adipocytes. Obesity, 2005, 13, 1530-1539.	4.0	34
74	Metabolic master regulators: sharing information among multiple systems. Trends in Endocrinology and Metabolism, 2012, 23, 594-601.	3.1	34
75	The Extracellular Redox State Modulates Mitochondrial Function, Gluconeogenesis, and Glycogen Synthesis in Murine Hepatocytes. PLoS ONE, 2015, 10, e0122818.	1.1	33
76	The Redox Communication Network as a Regulator of Metabolism. Frontiers in Physiology, 2020, 11, 567796.	1.3	33
77	Regulation of lipolytic activity by long-chain acyl-coenzyme A in islets and adipocytes. American Journal of Physiology - Endocrinology and Metabolism, 2005, 289, E1085-E1092.	1.8	32
78	Potentiation of insulin secretion by phorbol esters is mediated by PKC-α and nPKC isoforms. American Journal of Physiology - Endocrinology and Metabolism, 2002, 283, E880-E888.	1.8	31
79	Blocking mitochondrial pyruvate import in brown adipocytes induces energy wasting via lipid cycling. EMBO Reports, 2020, 21, e49634.	2.0	31
80	Free Fatty Acid Regulation of Glucose-Dependent Intrinsic Oscillatory Lipolysis in Perifused Isolated Rat Adipocytes. Diabetes, 2005, 54, 629-637.	0.3	30
81	Glucose-induced Metabolic Oscillations Parallel Those of Ca2+ and Insulin Release in Clonal Insulin-secreting Cells. Journal of Biological Chemistry, 2001, 276, 36946-36950.	1.6	29
82	Acyl Coenzyme A Synthetase Regulation: Putative Role in Longâ€Chain Acyl Coenzyme A Partitioning. Obesity, 2004, 12, 1781-1788.	4.0	27
83	Oleate-induced formation of fat cells with impaired insulin sensivitity. Lipids, 2006, 41, 267-271.	0.7	26
84	Octanoate Inhibits Triglyceride Synthesis in 3T3-L1 and Human Adipocytes. Journal of Nutrition, 2003, 133, 2512-2518.	1.3	24
85	Mediumâ€Chain Fatty Acids Attenuate Agonistâ€Stimulated Lipolysis, Mimicking the Effects of Starvation. Obesity, 2004, 12, 599-611.	4.0	24
86	Glucose-6-phosphate isomerase deficiency results in mTOR activation, failed translocation of lipin $1\hat{l}\pm$ to the nucleus and hypersensitivity to glucose: Implications for the inherited glycolytic disease. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2011, 1812, 1393-1402.	1.8	23
87	What Regulates Basal Insulin Secretion and Causes Hyperinsulinemia?. Diabetes, 2021, 70, 2174-2182.	0.3	23
88	Glucose-induced Toxicity in Insulin-producing Pituitary Cells That Coexpress GLUT2 and Glucokinase. Journal of Biological Chemistry, 2001, 276, 36695-36702.	1.6	22
89	Sulfonylureas Rapidly Cross Phospholipid Bilayer Membranes by a Free-Diffusion Mechanism. Diabetes, 2003, 52, 2526-2531.	0.3	22
90	Extracellular Redox Regulation of Intracellular Reactive Oxygen Generation, Mitochondrial Function and Lipid Turnover in Cultured Human Adipocytes. PLoS ONE, 2016, 11, e0164011.	1.1	22

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91	Glucagon-like peptide 1 and fatty acids amplify pulsatile insulin secretion from perifused rat islets. Biochemical Journal, 2003, 369, 173-178.	1.7	20
92	Esterification of free fatty acids in adipocytes: a comparison between octanoate and oleate. Biochemical Journal, 2000, 349, 463.	1.7	19
93	Identification of the signals for glucose-induced insulin secretion in INS1 (832/13) \hat{l}^2 -cells using metformin-induced metabolic deceleration as a model. Journal of Biological Chemistry, 2017, 292, 19458-19468.	1.6	19
94	³ Hâ€serotonin as a marker of oscillatory insulin secretion in clonal βâ€cells (INSâ€1). FEBS Letters, 2007, 581, 4080-4084.	1.3	17
95	Inhibition of Monoacylglycerol Lipase Activity Decreases Glucose-Stimulated Insulin Secretion in INS-1 (832/13) Cells and Rat Islets. PLoS ONE, 2016, 11, e0149008.	1.1	17
96	Effects of medium chain triglycerides supplementation on insulin sensitivity and beta cell function: A feasibility study. PLoS ONE, 2019, 14, e0226200.	1.1	16
97	Glucose-dependent Insulin Modulation of Oscillatory Lipolysis in Perifused Rat Adipocytes. Obesity, 2005, 13, 2058-2065.	4.0	11
98	New Scanning Electron Microscopic Method for Determination of Adipocyte Size in Humans and Mice*. Obesity, 2007, 15, 1657-1665.	1.5	10
99	Effects of thiol antioxidant Î ² -mercaptoethanol on diet-induced obese mice. Life Sciences, 2014, 107, 32-41.	2.0	10
100	Type 1 diabetes alters lipid handling and metabolism in human fibroblasts and peripheral blood mononuclear cells. PLoS ONE, 2017, 12, e0188474.	1.1	10
101	Incorporation of [1-13C]oleate into cellular triglycerides in differentiating 3T3L1 cells. Lipids, 1999, 34, 825-831.	0.7	9
102	Direct Stimulation of Islet Insulin Secretion by Glycolytic and Mitochondrial Metabolites in KCl-Depolarized Islets. PLoS ONE, 2016, 11, e0166111.	1.1	9
103	KCl -Permeabilized Pancreatic Islets: An Experimental Model to Explore the Messenger Role of ATP in the Mechanism of Insulin Secretion. PLoS ONE, 2015, 10, e0140096.	1.1	7
104	Acute carbohydrate overfeeding: a redox model of insulin action and its impact on metabolic dysfunction in humans. American Journal of Physiology - Endocrinology and Metabolism, 2021, 321, E636-E651.	1.8	7
105	A 13C nuclear magnetic resonance study of free fatty acid incorporation in acylated lipids in differentiating predipocytes. Lipids, 1998, 33, 449-454.	0.7	5
106	Fibroblasts From Type 1 Diabetics Exhibit Enhanced Ca2+ Mobilization after TNF or Fat Exposure. PLoS ONE, 2014, 9, e87068.	1.1	4
107	Cohort profile: The MULTI sTUdy Diabetes rEsearch (MULTITUDE) consortium. BMJ Open, 2018, 8, e020640.	0.8	4
108	The time is now for new, lower diabetes diagnostic thresholds. Trends in Endocrinology and Metabolism, 2022, 33, 4-7.	3.1	4

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109	The Intra- or Extracellular Redox State Was Not Affected by a High vs. Low Glycemic Response Diet in Mice. PLoS ONE, 2015, 10, e0128380.	1.1	3
110	Response to Comment on Schwartz et al. The Time Is Right for a New Classification System for Diabetes: Rationale and Implications of the β-Cell–Centric Classification Schema. Diabetes Care 2016;39:179–186. Diabetes Care, 2016, 39, e129-e130.	4.3	3
111	Targeting Pyruvate Kinase PEPs Up Insulin Secretion and Improves Glucose Homeostasis. Cell Metabolism, 2020, 32, 693-694.	7.2	3
112	Metabolic Regulation of Insulin Secretion. , 2008, , 53-74.		3
113	Greetings from the New Editor-in-Chief of Obesity Research. Obesity, 2003, 11, 1-1.	4.0	1
114	Glucose-dependent insulinotropic polypeptide (GIP) promotes triglyceride synthesis in adipocytes. Gastroenterology, 2003, 124, A30.	0.6	1
115	Iron stimulates insulin secretion in clonal pancreatic β ells and dissociated rat islets. FASEB Journal, 2013, 27, 1010.13.	0.2	1
116	Metformin relieves oxidative stress and leads to differential modulation of function in key metabolic tissues. FASEB Journal, 2013, 27, lb113.	0.2	1
117	Acyl-CoA Synthetase Inhibition Protects Clonal Pancreatic Beta-cell from Effects of Chronic Excess Nutrients. Current Developments in Nutrition, 2020, 4, nzaa049_045.	0.1	O
118	Chronic exposure of clonal pancreatic βâ€cells (INSâ€1 832/13) to acetoacetate inhibits glucoseâ€induced insulin secretion. FASEB Journal, 2011, 25, 914.1.	0.2	0
119	ANTIOXIDANTS DECREASE LIPOLYSIS AND LIPID SYNTHESIS IN HUMAN DIFFERENTIATED ADIPOCYTES. FASEB Journal, 2011, 25, 914.5.	0.2	0
120	Mitochondrial dynamics regulate brown adiopcyte energy expenditure. FASEB Journal, 2013, 27, 582.4.	0.2	0
121	Redox state as a master regulator of liver function. FASEB Journal, 2013, 27, 565.5.	0.2	O
122	Inhibition of Monoâ∈Acylâ∈Glycerol Lipase by JZLâ∈184 Results in Glucolipotoxicity in Pancreatic βâ∈Cells. FASEB Journal, 2013, 27, 1010.10.	0.2	0
123	Effects of Oleate and Inflammatory Cytokines on Dermal Fibroblasts in Type 1 Diabetics. FASEB Journal, 2013, 27, 1010.9.	0.2	0
124	Recruitment in a pediatric clinical research trial targeting underserved populations: efforts and challenges (828.9). FASEB Journal, 2014, 28, 828.9.	0.2	0