Vincent Poitout

List of Publications by Year
in descending order

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121 papers	8,471 citations	47006 47 h-index	45317 90 g-index
132 all docs	132 docs citations	132 times ranked	8357 citing authors

#	Article	IF	Citations
1	Glucolipotoxicity: Fuel Excess and Î²-Cell Dysfunction. Endocrine Reviews, 2008, 29, 351-366.	20.1	915
2	Â-Cell Glucose Toxicity, Lipotoxicity, and Chronic Oxidative Stress in Type 2 Diabetes. Diabetes, 2004, 53, S119-S124.	0.6	756
3	Minireview: Secondary Î²-Cell Failure in Type 2 Diabetesâ€”A Convergence of Glucotoxicity and Lipotoxicity. Endocrinology, 2002, 143, 339-342.	2.8	661
4	Glucolipotoxicity of the pancreatic beta cell. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2010, 1801, 289-298.	2.4	307
5	Minireview: Secondary Â-Cell Failure in Type 2 Diabetes--A Convergence of Glucotoxicity and Lipotoxicity. Endocrinology, 2002, 143, 339-342.	2.8	237
6	GPR40 Is Necessary but Not Sufficient for Fatty Acid Stimulation of Insulin Secretion In Vivo. Diabetes, 2007, 56, 1087-1094.	0.6	234
7	Recent Insights Into Mechanisms of Î²-Cell Lipo- and Glucolipotoxicity in Type 2 Diabetes. Journal of Molecular Biology, 2020, 432, 1514-1534.	4.2	212
8	Palmitate Inhibition of Insulin Gene Expression Is Mediated at the Transcriptional Level via Ceramide Synthesis. Journal of Biological Chemistry, 2003, 278, 30015-30021.	3.4	210
9	Regulation of the Insulin Gene by Glucose and Fatty Acids. Journal of Nutrition, 2006, 136, 873-876.	2.9	192
10	Palmitate Inhibits Insulin Gene Expression by Altering PDX-1 Nuclear Localization and Reducing MafA Expression in Isolated Rat Islets of Langerhans. Journal of Biological Chemistry, 2005, 280, 32413-32418.	3.4	176
11	The Islet Î² Cell-enriched MafA Activator Is a Key Regulator of Insulin Gene Transcription. Journal of Biological Chemistry, 2005, 280, 11887-11894.	3.4	165
12	A Role for the Malonyl-CoA/Long-Chain Acyl-CoA Pathway of Lipid Signaling in the Regulation of Insulin Secretion in Response to Both Fuel and Nonfuel Stimuli. Diabetes, 2004, 53, 1007-1019.	0.6	164
13	The Fatty Acid Receptor GPR40 Plays a Role in Insulin Secretion In Vivo After High-Fat Feeding. Diabetes, 2008, 57, 2432-2437.	0.6	151
14	The fatty acid receptor FFA1/GPR40 a decade later: how much do we know?. Trends in Endocrinology and Metabolism, 2013, 24, 398-407.	7.1	140
15	G protein-coupled receptor (GPR)40-dependent potentiation of insulin secretion in mouse islets is mediated by protein kinase D1. Diabetologia, 2012, 55, 2682-2692.	6.3	139
16	An Acetate-Specific GPCR, FFAR2, Regulates Insulin Secretion. Molecular Endocrinology, 2015, 29, 1055-1066.	3.7	139
17	Effect of the two-layer (University of Wisconsin solution???perfluorochemical plus O2) method of pancreas preservation on human islet isolation, as assessed by the Edmonton Isolation Protocol1. Transplantation, 2002, 74, 1414-1419.	1.0	130
18	Deletion of GPR40 Impairs Glucose-Induced Insulin Secretion In Vivo in Mice Without Affecting Intracellular Fuel Metabolism in Islets. Diabetes, 2009, 58, 2607-2615.	0.6	118

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19	High-fat diet-induced Î²-cell proliferation occurs prior to insulin resistance in C57Bl/6J male mice. American Journal of Physiology - Endocrinology and Metabolism, 2015, 308, E573-E582.	3.5	117
20	Insulin Secretory Deficiency and Glucose Intolerance in Rab3A Null Mice. Journal of Biological Chemistry, 2003, 278, 9715-9721.	3.4	110
21	Lipopolysaccharides Impair Insulin Gene Expression in Isolated Islets of Langerhans via Toll-Like Receptor-4 and NF-ÎºB Signalling. PLoS ONE, 2012, 7, e36200.	2.5	109
22	Lack of TXNIP Protects Against Mitochondria-Mediated Apoptosis but Not Against Fatty Acidâ€“Induced ER Stressâ€“Mediated Î²-Cell Death. Diabetes, 2010, 59, 440-447.	0.6	107
23	Differential Effects of Hyperlipidemia on Insulin Secretion in Islets of Langerhans From Hyperglycemic Versus Normoglycemic Rats. Diabetes, 2002, 51, 662-668.	0.6	106
24	Inhibition of Insulin Secretion by Leptin in Normal Rodent Islets of Langerhans. Endocrinology, 1998, 139, 822-826.	2.8	103
25	Lipid receptors and islet function: therapeutic implications?. Diabetes, Obesity and Metabolism, 2009, 11, 10-20.	4.4	101
26	Urea impairs Î² cell glycolysis and insulin secretion in chronic kidney disease. Journal of Clinical Investigation, 2016, 126, 3598-3612.	8.2	99
27	<scp>GPR40</scp> agonists for the treatment of type 2 diabetes: life after â€˜TAKingâ€™ a hit. Diabetes, Obesity and Metabolism, 2015, 17, 622-629.	4.4	93
28	Glucolipotoxicity age-dependently impairs beta cell function in rats despite a marked increase in beta cell mass. Diabetologia, 2010, 53, 2369-2379.	6.3	91
29	Prostaglandin E2 Mediates Inhibition of Insulin Secretion by Interleukin-1Î². Journal of Biological Chemistry, 1999, 274, 31245-31248.	3.4	88
30	Evidence Against the Involvement of Oxidative Stress in Fatty Acid Inhibition of Insulin Secretion. Diabetes, 2004, 53, 2610-2616.	0.6	85
31	Î²-Arrestin Recruitment and Biased Agonism at Free Fatty Acid Receptor 1. Journal of Biological Chemistry, 2015, 290, 21131-21140.	3.4	79
32	Defective insulin secretory response to intravenous glucose in C57Bl/6J compared to C57Bl/6N mice. Molecular Metabolism, 2014, 3, 848-854.	6.5	77
33	Phenotypic Characterization of MIP-CreERT1Lphi Mice With Transgene-Driven Islet Expression of Human Growth Hormone. Diabetes, 2015, 64, 3798-3807.	0.6	77
34	The Free Fatty Acid Receptor G Protein-coupled Receptor 40 (GPR40) Protects from Bone Loss through Inhibition of Osteoclast Differentiation*. Journal of Biological Chemistry, 2013, 288, 6542-6551.	3.4	76
35	Adipose Triglyceride Lipase Is Implicated in Fuel- and Non-fuel-stimulated Insulin Secretion. Journal of Biological Chemistry, 2009, 284, 16848-16859.	3.4	73
36	Cyclical and Alternating Infusions of Glucose and Intralipid in Rats Inhibit Insulin Gene Expression and Pdx-1 Binding in Islets. Diabetes, 2008, 57, 424-431.	0.6	71

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37	Discovery of Novel Glucose-Regulated Proteins in Isolated Human Pancreatic Islets Using LCâ€“MS/MS-Based Proteomics. Journal of Proteome Research, 2012, 11, 3520-3532.	3.7	69
38	Considerations and guidelines for mouse metabolic phenotyping in diabetes research. Diabetologia, 2018, 61, 526-538.	6.3	67
39	Glucose Rapidly and Reversibly Decreases INS-1 Cell Insulin Gene Transcription via Decrements in STF-1 and C1 Activator Transcription Factor Activity. Molecular Endocrinology, 1998, 12, 207-219.	3.7	65
40	Glucolipotoxicity of the pancreatic Î²-cell: myth or reality?. Biochemical Society Transactions, 2008, 36, 901-904.	3.4	65
41	Characterization of the Human Pancreatic Islet Proteome by Two-Dimensional LC/MS/MS. Journal of Proteome Research, 2006, 5, 3345-3354.	3.7	58
42	Glucose activates free fatty acid receptor 1 gene transcription via phosphatidylinositol-3-kinase-dependent <i>O</i> -GlcNAcylation of pancreas-duodenum homeobox-1. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2376-2381.	7.1	56
43	Mode of regulation of the extracellular signal-regulated kinases in the pancreatic Î²-cell line MIN6 and their implication in the regulation of insulin gene transcription. Biochemical Journal, 1999, 340, 219-225.	3.7	55
44	Increasing Triglyceride Synthesis Inhibits Glucose-Induced Insulin Secretion in Isolated Rat Islets of Langerhans: A Study Using Adenoviral Expression of Diacylglycerol Acyltransferase. Endocrinology, 2002, 143, 3326-3332.	2.8	55
45	Involvement of Per-Arnt-Sim Kinase and Extracellular-Regulated Kinases-1/2 in Palmitate Inhibition of Insulin Gene Expression in Pancreatic Î²-Cells. Diabetes, 2009, 58, 2048-2058.	0.6	55
46	Targeting lipid GPCRs to treat typeÂ2 diabetes mellitus â€" progress and challenges. Nature Reviews Endocrinology, 2021, 17, 162-175.	9.6	52
47	Pioglitazone Acutely Reduces Insulin Secretion and Causes Metabolic Deceleration of the Pancreatic Î²-Cell at Submaximal Glucose Concentrations. Endocrinology, 2009, 150, 3465-3474.	2.8	51
48	Epidermal Growth Factor Receptor Signaling Promotes Pancreatic Î²-Cell Proliferation in Response to Nutrient Excess in Rats Through mTOR and FOXM1. Diabetes, 2014, 63, 982-993.	0.6	51
49	Modulating GPR40: therapeutic promise and potential in diabetes. Drug Discovery Today, 2013, 18, 1301-1308.	6.4	49
50	PGC-1 coactivators in Î²-cells regulate lipid metabolism and are essential for insulin secretion coupled to fatty acids. Molecular Metabolism, 2015, 4, 811-822.	6.5	46
51	Central Agonism of GPR120 Acutely Inhibits Food Intake and Food Reward and Chronically Suppresses Anxiety-Like Behavior in Mice. International Journal of Neuropsychopharmacology, 2016, 19, pyw014.	2.1	46
52	The ins and outs of fatty acids on the pancreatic Î² cell. Trends in Endocrinology and Metabolism, 2003, 14, 201-203.	7.1	42
53	The Islet Estrogen Receptor-Î± Is Induced by Hyperglycemia and Protects Against Oxidative Stress-Induced Insulin-Deficient Diabetes. PLoS ONE, 2014, 9, e87941.	2.5	40
54	The regulator of G-protein signaling RGS16 promotes insulin secretion and Î²-cell proliferation in rodent and human islets. Molecular Metabolism, 2016, 5, 988-996.	6.5	40

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55	The Stability and Transactivation Potential of the Mammalian MafA Transcription Factor Are Regulated by Serine 65 Phosphorylation. Journal of Biological Chemistry, 2009, 284, 759-765.	3.4	37
56	Npas4 Is a Novel Activityâ€"Regulated Cytoprotective Factor in Pancreatic Î²-Cells. Diabetes, 2013, 62, 2808-2820.	0.6	35
57	Glucose and fatty acids synergistically and reversibly promote beta cell proliferation in rats. Diabetologia, 2017, 60, 879-888.	6.3	34
58	G Protein-Coupled Receptors and Insulin Secretion: 119 and Counting. Endocrinology, 2007, 148, 2598-2600.	2.8	32
59	GPR40: Good Cop, Bad Cop?. Diabetes, 2009, 58, 1035-1036.	0.6	32
60	Fatty Acid Receptor Gpr40 Mediates Neuromicrovascular Degeneration Induced by Transarachidonic Acids in Rodents. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 954-961.	2.4	32
61	Nutrient regulation of pancreatic Î²-cell proliferation. Biochimie, 2017, 143, 10-17.	2.6	32
62	The Î"F508 Mutation in the Cystic Fibrosis Transmembrane Conductance Regulator Is Associated With Progressive Insulin Resistance and Decreased Functional Î²-Cell Mass in Mice. Diabetes, 2015, 64, 4112-4122.	0.6	31
63	Long-term exposure of isolated rat islets of langerhans to supraphysiologic glucose concentrations decreases insulin mRNA levels. Metabolism: Clinical and Experimental, 1999, 48, 319-323.	3.4	28
64	Pioglitazone Acutely Reduces Energy Metabolism and Insulin Secretion in Rats. Diabetes, 2013, 62, 2122-2129.	0.6	28
65	Inhibition of Insulin Secretion by Leptin in Normal Rodent Islets of Langerhans. Endocrinology, 1998, 139, 822-826.	2.8	26
66	Î²-Cell Lipotoxicity: Burning Fat into Heat?. Endocrinology, 2004, 145, 3563-3565.	2.8	23
67	The autonomic nervous system regulates pancreatic Î²-cell proliferation in adult male rats. American Journal of Physiology - Endocrinology and Metabolism, 2019, 317, E234-E243.	3.5	23
68	The Role and Future of FFA1 as a Therapeutic Target. Handbook of Experimental Pharmacology, 2016, 236, 159-180.	1.8	22
69	Pancreatic islet response to hyperglycemia is dependent on peroxisome proliferator-activated receptor alpha (PPARÎ±). FEBS Letters, 2005, 579, 2284-2288.	2.8	21
70	Human Mutation within Per-Arnt-Sim (PAS) Domain-containing Protein Kinase (PASK) Causes Basal Insulin Hypersecretion*. Journal of Biological Chemistry, 2011, 286, 44005-44014.	3.4	21
71	A Call for Improved Reporting of Human Islet Characteristics in Research Articles. Diabetes, 2019, 68, 239-240.	0.6	21
72	Mode of regulation of the extracellular signal-regulated kinases in the pancreatic Î²-cell line MIN6 and their implication in the regulation of insulin gene transcription. Biochemical Journal, 1999, 340, 219.	3.7	20

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73	Free fatty acid receptor 4 inhibitory signaling in delta cells regulates islet hormone secretion in mice. Molecular Metabolism, 2021, 45, 101166.	6.5	20
74	Elevated Glucose Attenuates Human Insulin Gene Promoter Activity in INS-1 Pancreatic Î²-Cells via Reduced Nuclear Factor Binding to the A5/Core and Z Element. Molecular Endocrinology, 2005, 19, 1343-1360.	3.7	19
75	A call for improved reporting of human islet characteristics in research articles. Diabetologia, 2019, 62, 209-211.	6.3	19
76	CMPF: A Biomarker for Type 2 Diabetes Mellitus Progression?. Trends in Endocrinology and Metabolism, 2016, 27, 439-440.	7.1	18
77	Deletion of Protein Kinase D1 in Pancreatic Î²-Cells Impairs Insulin Secretion in High-Fat Dietâ€“Fed Mice. Diabetes, 2018, 67, 71-77.	0.6	18
78	Early detection of liver steatosis by magnetic resonance imaging in rats infused with glucose and Intralipid solutions and correlation to insulin levels. Metabolism: Clinical and Experimental, 2013, 62, 1850-1857.	3.4	17
79	Lipid partitioning in the pancreatic Î² cell: physiologic and pathophysiologic implications. Current Opinion in Endocrinology, Diabetes and Obesity, 2002, 9, 152-159.	0.6	16
80	Per-Arnt-Sim Kinase Regulates Pancreatic Duodenal Homeobox-1 Protein Stability via Phosphorylation of Glycogen Synthase Kinase 3Î² in Pancreatic Î²-Cells. Journal of Biological Chemistry, 2013, 288, 24825-24833.	3.4	16
81	HB-EGF Signaling Is Required for Glucose-Induced Pancreatic Î²-Cell Proliferation in Rats. Diabetes, 2020, 69, 369-380.	0.6	16
82	Phospholipid hydrolysis and insulin secretion: a step toward solving the Rubik's cube. American Journal of Physiology - Endocrinology and Metabolism, 2008, 294, E214-E216.	3.5	12
83	Combined Deletion of Free Fatty-Acid Receptors 1 and 4 Minimally Impacts Glucose Homeostasis in Mice. Endocrinology, 2021, 162, .	2.8	12
84	Fatty Acids and Insulin Secretion: From FFAR and Near?. Diabetes, 2018, 67, 1932-1934.	0.6	11
85	A role for PKD1 in insulin secretion downstream of P2Y ₁ receptor activation in mouse and human islets. Physiological Reports, 2019, 7, e14250.	1.7	10
86	Lipotoxicity impairs incretin signalling. Diabetologia, 2013, 56, 231-233.	6.3	9
87	Free Fatty Acid Receptor 1: A New Drug Target for Type 2 Diabetes?. Canadian Journal of Diabetes, 2012, 36, 275-280.	0.8	8
88	Development of a glucose sensor for glucose monitoring in man: The disposable implant concept. Clinical Materials, 1994, 15, 241-246.	0.5	7
89	Lack of preservation of insulin gene expression by a Glucagon-Like Peptide 1 agonist or a Dipeptidyl Peptidase 4 inhibitor in an in vivo model of glucolipotoxicity. Diabetes Research and Clinical Practice, 2010, 87, 322-328.	2.8	7
90	Binding of activating transcription factor 6 to the A5/Core of the rat insulin II gene promoter does not mediate its transcriptional repression. Journal of Molecular Endocrinology, 2011, 47, 273-283.	2.5	7

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91	Pronounced proliferation of non-beta cells in response to beta-cell mitogens in isolated human islets of Langerhans. Scientific Reports, 2021, 11, 11283.	3.3	7
92	The Tetracycline-Controlled Transactivator (Tet-On/Off) System in Î²-Cells Reduces Insulin Expression and Secretion in Mice. Diabetes, 2021, 70, 2850-2859.	0.6	7
93	The P21-activated kinase PAK4 is implicated in fatty-acid potentiation of insulin secretion downstream of free fatty acid receptor 1. Islets, 2016, 8, 157-164.	1.8	6
94	Pancreatic and duodenal homeobox-1 nuclear localization is regulated by glucose in dispersed rat islets but not in insulin-secreting cell lines. Islets, 2014, 6, e982376.	1.8	5
95	Increases in bioactive lipids accompany early metabolic changes associated with Î²-cell expansion in response to short-term high-fat diet. American Journal of Physiology - Endocrinology and Metabolism, 2018, 315, E1251-E1263.	3.5	5
96	Dual-Reporter Î²-Cell-Specific Male Transgenic Rats for the Analysis of Î²-Cell Functional Mass and Enrichment by Flow Cytometry. Endocrinology, 2016, 157, 1299-1306.	2.8	3
97	Very-Long-Chain Unsaturated Sphingolipids Mediate Oleate-Induced Rat Î²-Cell Proliferation. Diabetes, 2022, 71, 1218-1232.	0.6	3
98	The Fatty-Acid Receptor GPR40 Plays a Role in Insulin Secretion In Vivo After High-Fat Feeding. Canadian Journal of Diabetes, 2008, 32, 336.	0.8	2
99	Epidermal Growth Factor Signalling Promotes Pancreatic Beta-Cell Proliferation In Response to Nutrient Excess tn Rats Through MTOR And FOXM1. Canadian Journal of Diabetes, 2013, 37, S8.	0.8	2
100	A high molar activity 18F-labeled TAK-875 derivative for PET imaging of pancreatic Î²-cells. EJNMMI Radiopharmacy and Chemistry, 2018, 3, .	3.9	2
101	PAS Kinase Regulates PDX-1 Protein Stability Via Phosphorylation of GSK3Î² in Pancreatic Beta Cells. Canadian Journal of Diabetes, 2013, 37, S59.	0.8	1
102	A Model of Chronic Nutrient Infusion in the Rat. Journal of Visualized Experiments, 2013, , .	0.3	1
103	A Role for ER Stress and JNK in Fatty Acid Inhibition of the Insulin Gene. Canadian Journal of Diabetes, 2008, 32, 338.	0.8	0
104	PAS Kinase Mediates Palmitate Inhibition of Insulin Gene Expression in Pancreatic Beta-Cells. Canadian Journal of Diabetes, 2008, 32, 303.	0.8	0
105	Global Transcriptomic and Metabolomic Profiling of GPR40 KnockÂ·Out Mouse Islets. Canadian Journal of Diabetes, 2008, 32, 302.	0.8	0
106	Role of Protein Kinase D 1 in Pancreatic Beta Cells. Canadian Journal of Diabetes, 2013, 37, S58-S59.	0.8	0
107	TAK-875 is a Partial Agonist of the Free Fatty Acid Receptor GPR40. Canadian Journal of Diabetes, 2013, 37, S59.	0.8	0
108	The Î”F508 Gene Mutation of Cystic Fibrosis Transmembrane Regulator Protein Leads to a Progressive Decline of Beta-Cell Function in Mice Carrying This Mutation. Canadian Journal of Diabetes, 2013, 37, S57.	0.8	0

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109	The Beta Cell in Metabolic Syndrome. , 2014, , 85-109.		0
110	Beta-Arrestin 2 Recruitment and Biased Agonism at the Free Fatty Acid Receptor GPR40. Canadian Journal of Diabetes, 2014, 38, S66.	0.8	0
111	Glucose Regulation of Pdx-1 Does Not Involve Changes in Pcif1 Protein Expression. Canadian Journal of Diabetes, 2014, 38, 151.	0.8	0
112	FO001INSULIN SECRETORY DEFECT IN A MOUSE MODEL OF CHRONIC KIDNEY DISEASE. Nephrology Dialysis Transplantation, 2015, 30, iii1-iii1.	0.7	0
113	SP342ROLE OF BROWN FAT IN INCREASED ENERGY EXPENDITURE IN UREMIA-ASSOCIATED CACHEXIA. Nephrology Dialysis Transplantation, 2016, 31, i204-i204.	0.7	0
114	13 - RGS9 Is Required for Glucose-Induced Beta-Cell Proliferation in Ex Vivo Pancreatic Islets. Canadian Journal of Diabetes, 2020, 44, S6.	0.8	0
115	74 - Reactive Oxygen Species Are Implicated in Nutrient-Induced Î²-Cell Proliferation. Canadian Journal of Diabetes, 2020, 44, S30.	0.8	0
116	Long-chain fatty-acid receptors and pancreatic islet function. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, SY49-3.	0.0	0
117	2159-P: Beta-Cell Compensation to Pubertal Insulin Resistance Is Compromised in High-Fat Fed Rats and Impairs Glucose Homeostasis Later in Life. Diabetes, 2019, 68, 2159-P.	0.6	0
118	2177-P: Role of De Novo Sphingolipid Metabolites in Oleate-Induced Pancreatic ÃŸ-Cell Proliferation in Rats. Diabetes, 2019, 68, .	0.6	0
119	200-OR: Role of Delta Cell Gpr120 in the Regulation of Islet Function and Glucose Control. Diabetes, 2019, 68, .	0.6	0
120	2098-P: Transcriptomic Changes Associated with Oleate-Induced ÃŸ-Cell Proliferation in Rat Islets. Diabetes, 2020, 69, 2098-P.	0.6	0
121	2068-P: Beta-Cell Compensation to Pubertal Insulin Resistance Is Compromised in High-Fat Fed Rats and Impairs Glucose Homeostasis Later in Life. Diabetes, 2020, 69, .	0.6	0