Patrick Gilon

List of Publications by Year
in descending order

52 papers	3,481 citations	136950 32 h-index	189892 50 g-index
52 all docs	52 docs citations	52 times ranked	4015 citing authors

#	Article	IF	Citations
1	Mechanisms and Physiological Significance of the Cholinergic Control of Pancreatic Î²-Cell Function. Endocrine Reviews, 2001, 22, 565-604.	20.1	429
2	Loss of high-frequency glucose-induced Ca ²⁺ oscillations in pancreatic islets correlates with impaired glucose tolerance in <i> Trpm5 ^{âˆ’/âˆ’} </i> mice. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5208-5213.	7.1	187
3	Tissue-specific disallowance of housekeeping genes: The other face of cell differentiation. Genome Research, 2011, 21, 95-105.	5.5	163
4	Interplay between cytoplasmic Ca2+ and the ATP/ADP ratio: a feedback control mechanism in mouse pancreatic islets. Biochemical Journal, 1998, 333, 269-274.	3.7	159
5	Calcium signaling in pancreatic Î²-cells in health and in Type 2 diabetes. Cell Calcium, 2014, 56, 340-361.	2.4	158
6	Control Mechanisms of the Oscillations of Insulin Secretion In Vitro and In Vivo. Diabetes, 2002, 51, S144-S151.	0.6	147
7	The Mitochondrial Ca2+ Uniporter MCU Is Essential for Glucose-Induced ATP Increases in Pancreatic Î²-Cells. PLoS ONE, 2012, 7, e39722.	2.5	146
8	Steviol glycosides enhance pancreatic beta-cell function and taste sensation by potentiation of TRPM5 channel activity. Nature Communications, 2017, 8, 14733.	12.8	136
9	Uptake and Release of Ca2+ by the Endoplasmic Reticulum Contribute to the Oscillations of the Cytosolic Ca2+ Concentration Triggered by Ca2+ Influx in the Electrically Excitable Pancreatic B-cell. Journal of Biological Chemistry, 1999, 274, 20197-20205.	3.4	119
10	Influence of cell number on the characteristics and synchrony of Ca2+oscillations in clusters of mouse pancreatic islet cells. Journal of Physiology, 1999, 520, 839-849.	2.9	104
11	Glucose-induced mixed [Ca²⁺]_coscillations in mouse Î²-cells are controlled by the membrane potential and the SERCA3 Ca²⁺-ATPase of the endoplasmic reticulum. American Journal of Physiology - Cell Physiology, 2006, 290, C1503-C1511.	4.6	102
12	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.	3.2	96
13	SERCA3 Ablation Does Not Impair Insulin Secretion but Suggests Distinct Roles of Different Sarcoendoplasmic Reticulum Ca2+ Pumps for Ca2+ Homeostasis in Pancreatic Â-cells. Diabetes, 2002, 51, 3245-3253.	0.6	87
14	Mechanisms of Control of the Free Ca2+ Concentration in the Endoplasmic Reticulum of Mouse Pancreatic Î²-Cells. Diabetes, 2011, 60, 2533-2545.	0.6	85
15	Glucose regulation of glucagon secretion. Diabetes Research and Clinical Practice, 2014, 103, 1-10.	2.8	84
16	Emptying of Intracellular Ca2+Stores Stimulates Ca2+Entry in Mouse Pancreatic Î²-Cells by Both Direct and Indirect Mechanisms. Journal of Physiology, 1997, 503, 387-398.	2.9	79
17	Tolbutamide Controls Glucagon Release From Mouse Islets Differently Than Glucose. Diabetes, 2013, 62, 1612-1622.	0.6	78
18	The GluCreâ€ROSA26EYFP mouse: A new model for easy identification of living pancreatic Î±â€cells. FEBS Letters, 2007, 581, 4235-4240.	2.8	77

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19	Frequency-dependent mitochondrial Ca2+ accumulation regulates ATP synthesis in pancreatic Î² cells. Pflugers Archiv European Journal of Physiology, 2013, 465, 543-554.	2.8	73
20	Glucose and Pharmacological Modulators of ATP-Sensitive K+ Channels Control [Ca2+]c by Different Mechanisms in Isolated Mouse Î±-Cells. Diabetes, 2009, 58, 412-421.	0.6	69
21	SERCA2 Deficiency Impairs Pancreatic Î²-Cell Function in Response to Diet-Induced Obesity. Diabetes, 2016, 65, 3039-3052.	0.6	65
22	Sodium-myoinositol cotransporter-1, SMIT1, mediates the production of reactive oxygen species induced by hyperglycemia in the heart. Scientific Reports, 2017, 7, 41166.	3.3	64
23	In Situ Electrophysiological Examination of Pancreatic Î± Cells in the Streptozotocin-Induced Diabetes Model, Revealing the Cellular Basis of Glucagon Hypersecretion. Diabetes, 2013, 62, 519-530.	0.6	62
24	UCP2 Regulates the Glucagon Response to Fasting and Starvation. Diabetes, 2013, 62, 1623-1633.	0.6	62
25	Identification of islet-enriched long non-coding RNAs contributing to Î²-cell failure in type 2 diabetes. Molecular Metabolism, 2017, 6, 1407-1418.	6.5	57
26	The Role of Î±-Cells in Islet Function and Glucose Homeostasis in Health and Type 2 Diabetes. Journal of Molecular Biology, 2020, 432, 1367-1394.	4.2	53
27	Feedback Control of the ATP-Sensitive K+ Current by Cytosolic Ca2+ Contributes to Oscillations of the Membrane Potential in Pancreatic Â-Cells. Diabetes, 2002, 51, 376-384.	0.6	49
28	Impaired Store-Operated Calcium Entry and STIM1 Loss Lead to Reduced Insulin Secretion and Increased Endoplasmic Reticulum Stress in the Diabetic Î²-Cell. Diabetes, 2018, 67, 2293-2304.	0.6	47
29	Contribution of the endoplasmic reticulum to the glucose-induced [Ca²⁺]_cresponse in mouse pancreatic islets. American Journal of Physiology - Endocrinology and Metabolism, 2002, 282, E982-E991.	3.5	44
30	Pancreatic and Duodenal Homeobox Protein 1 (Pdx-1) Maintains Endoplasmic Reticulum Calcium Levels through Transcriptional Regulation of Sarco-endoplasmic Reticulum Calcium ATPase 2b (SERCA2b) in the Islet Î² Cell. Journal of Biological Chemistry, 2014, 289, 32798-32810.	3.4	41
31	Inhibition of aquaporin-1 prevents myocardial remodeling by blocking the transmembrane transport of hydrogen peroxide. Science Translational Medicine, 2020, 12, .	12.4	39
32	Inter-domain tagging implicates caveolin-1 in insulin receptor trafficking and Erk signaling bias in pancreatic beta-cells. Molecular Metabolism, 2016, 5, 366-378.	6.5	38
33	Somatostatin Is Only Partly Required for the Glucagonostatic Effect of Glucose but Is Necessary for the Glucagonostatic Effect of KATP Channel Blockers. Diabetes, 2018, 67, 2239-2253.	0.6	33
34	Atypical Ca2+-induced Ca2+release from a sarco-endoplasmic reticulum Ca2+-ATPase 3-dependent Ca2+pool in mouse pancreatic Î²-cells. Journal of Physiology, 2004, 559, 141-156.	2.9	27
35	TALK-1 channels control Î² cell endoplasmic reticulum Ca ²⁺ homeostasis. Science Signaling, 2017, 10, .	3.6	27
36	SGLT2 is not expressed in pancreatic Î±- and Î²-cells, and its inhibition does not directly affect glucagon and insulin secretion in rodents and humans. Molecular Metabolism, 2020, 42, 101071.	6.5	26

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37	Immunocytochemical localisation of GABA in endocrine cells of the rat entero-pancreatic system. Biology of the Cell, 1988, 62, 265-273.	2.0	24
38	Okadaic acidâ€induced decrease in the magnitude and efficacy of the Ca 2+ signal in pancreatic Î² cells and inhibition of insulin secretion. British Journal of Pharmacology, 1998, 123, 97-105.	5.4	22
39	Glucose Acutely Reduces Cytosolic and Mitochondrial H₂O₂in Rat Pancreatic Beta Cells. Antioxidants and Redox Signaling, 2019, 30, 297-313.	5.4	21
40	NALCN: a regulated leak channel. EMBO Reports, 2009, 10, 963-964.	4.5	18
41	Metallothionein 1 negatively regulates glucose-stimulated insulin secretion and is differentially expressed in conditions of beta cell compensation and failure in mice and humans. Diabetologia, 2019, 62, 2273-2286.	6.3	16
42	How stable is repression of disallowed genes in pancreatic islets in response to metabolic stress?. PLoS ONE, 2017, 12, e0181651.	2.5	16
43	KATP channel blockers control glucagon secretion by distinct mechanisms: A direct stimulation of Î±-cells involving a [Ca2+]c rise and an indirect inhibition mediated by somatostatin. Molecular Metabolism, 2021, 53, 101268.	6.5	13
44	LDHA is enriched in human isletÂalpha cells and upregulated in type 2 diabetes. Biochemical and Biophysical Research Communications, 2021, 568, 158-166.	2.1	10
45	Cocaine- and amphetamine-regulated transcript: a novel regulator of energy homeostasis expressed in a subpopulation of pancreatic islet cells. Diabetologia, 2016, 59, 1855-1859.	6.3	8
46	The endoplasmic reticulumâ€“plasma membrane tethering protein TMEM24 is a regulator of cellular Ca2+ homeostasis. Journal of Cell Science, 2022, 135, .	2.0	5
47	Can Tea Extracts Exert a Protective Effect Against Diabetes by Reducing Oxidative Stress and Decreasing Glucotoxicity in Pancreatic Î²-Cells?. Diabetes and Metabolism Journal, 2015, 39, 27.	4.7	4
48	Paracrine nitric oxide induces expression of cardiac sarcomeric proteins in adult progenitor cells through soluble guanylyl cyclase/cyclic-guanosine monophosphate and Wnt/Î²-catenin inhibition. Cardiovascular Research, 2016, 112, 478-490.	3.8	4
49	Glucose inhibits glucagon secretion by decreasing [Ca2+]c and by reducing the efficacy of Ca2+ on exocytosis via somatostatin-dependent and independent mechanisms. Molecular Metabolism, 2022, 61, 101495.	6.5	3
50	Î³-Hydroxybutyrate does not mediate glucose inhibition of glucagon secretion. Journal of Biological Chemistry, 2020, 295, 5419-5426.	3.4	2
51	Physiological and Pathophysiological Control of Glucagon Secretion by Pancreatic Î±-Cells. , 2014, , 1-69.		2
52	Physiological and Pathophysiological Control of Glucagon Glucagon Secretion by Pancreatic Î±-Cells. , 2015, , 175-247.		1