Glucose-Induced O2 Consumption Activates Hypoxia In Insulin-Secreting Pancreatic Beta-Cells

PLoS ONE 7, e29807

DOI: 10.1371/journal.pone.0029807

Citation Report

#	Article	IF	CITATIONS
1	The molecular mechanisms of pancreatic β-cell glucotoxicity: Recent findings and future research directions. Molecular and Cellular Endocrinology, 2012, 364, 1-27.	3.2	229
2	Pyruvate dehydrogenase E1α phosphorylation is induced by glucose but does not control metabolism-secretion coupling in INS-1E clonal β-cells. Biochimica Et Biophysica Acta - Molecular Cell Research, 2012, 1823, 1815-1824.	4.1	22
3	Novel links between HIFs, type 2 diabetes, and metabolic syndrome. Trends in Endocrinology and Metabolism, 2012, 23, 372-380.	7.1	64
4	The role of FOXO1 in β-cell failure and type 2 diabetes mellitus. Nature Reviews Endocrinology, 2013, 9, 615-623.	9.6	173
5	Hypoxia-induced signaling and its relevance in discovering biomarkers for cancer research. Biomarkers and Genomic Medicine, 2013, 5, 135-141.	0.2	2
6	Hypoxia-inducible factor 1 alpha mediates epidermal growth factor-induced down-regulation of E-cadherin expression and cell invasion in human ovarian cancer cells. Cancer Letters, 2013, 329, 197-206.	7.2	62
7	Célula beta, diabetes y la ruta de hypoxia inducible factor. Avances En DiabetologÃa, 2013, 29, 44-49.	0.1	0
8	Islet Survival and Function Following Intramuscular Autotransplantation in the Minipig. American Journal of Transplantation, 2013, 13, 891-898.	4.7	29
9	The Possible Mechanisms Underlying the Impairment of HIF-1α Pathway Signaling in Hyperglycemia and the Beneficial Effects of Certain Therapies. International Journal of Medical Sciences, 2013, 10, 1412-1421.	2.5	92
10	Moderate Hypoxia Induces β-Cell Dysfunction with HIF-1–Independent Gene Expression Changes. PLoS ONE, 2014, 9, e114868.	2.5	45
11	Mitigation of Oxygen-Induced Retinopathy in $\hat{I}\pm2\hat{I}^21$ Integrin-Deficient Mice. , 2014, 55, 4338.		13
12	Hyperoxia reverses glucotoxicity-induced inhibition of insulin secretion in rat INS-1 β cells. Bioscience, Biotechnology and Biochemistry, 2014, 78, 843-850.	1.3	10
13	Oxygen supply to encapsulated therapeutic cells. Advanced Drug Delivery Reviews, 2014, 67-68, 93-110.	13.7	123
14	O-GlcNAcylation under hypoxic conditions and its effects on the blood-retinal barrier in diabetic retinopathy. International Journal of Molecular Medicine, 2014, 33, 624-632.	4.0	29
15	The control of insulin secretion by adipokines: current evidence for adipocyte-beta cell endocrine signalling in metabolic homeostasis. Mammalian Genome, 2014, 25, 442-454.	2.2	53
16	Hypoxia lowers SLC30A8/ZnT8 expression and free cytosolic Zn2+ in pancreatic beta cells. Diabetologia, 2014, 57, 1635-1644.	6.3	36
17	Hyperoxia inhibits glucose-induced insulin secretion and mitochondrial metabolism in rat pancreatic islets. Biochemical and Biophysical Research Communications, 2014, 443, 223-228.	2.1	29
18	Metabolic aspects of highâ€altitude adaptation in Tibetans. Experimental Physiology, 2015, 100, 1247-1255.	2.0	48

ARTICLE IF CITATIONS # Exome Sequencing of 75 Individuals from Multiply Affected Coeliac Families and Large Scale 19 2.5 8 Resequencing Follow Up. PLoS ONE, 2015, 10, e0116845. Inhibitor of differentiation proteins protect against oxidative stress by regulating the 6.3 antioxidant–mitochondrial response in mouse beta cells. Diabetologia, 2015, 58, 758-770. Sleep Apnea–Hypopnea Syndrome and Type 2 Diabetes. A Reciprocal Relationship?. Archivos De 21 0.8 19 Bronconeumologia, 2015, 51, 128-139. Inducible glomerular erythropoietin production in the adult kidney. Kidney International, 2015, 88, 1345-1355. Immunological mechanisms contributing to the double burden of diabetes and intracellular bacterial 23 4.4 273 infections. Immunology, 2015, 144, 171-185. SÃndrome de apneas-hipopneas del sueño y diabetes tipo 2. ¿Una relación de ida y vuelta?. Archivos De Bronconeumologia, 2015, 51, 128-139. 0.8 Hypoxia reduces ER-to-Golgi protein trafficking and increases cell death by inhibiting the adaptive 25 6.3 58 unfolded protein response in mouse beta cells. Diabetologia, 2016, 59, 1492-1502. HPA axis and vagus nervous function are involved in impaired insulin secretion of MSG-obese rats. 26 2.6 29 Journal of Endocrinology, 2016, 230, 27-38. Diabetes in the Cohen Rat Intensifies the Fetal Pancreatic Damage Induced by the Diabetogenic High 27 Sucrose Low Copper Diet. Birth Defects Research Part B: Developmental and Reproductive Toxicology, 3 1.4 2016, 107, 21-31. Culture at low glucose up-regulates mitochondrial function in pancreaticl²cells with accompanying 1.8 effects on viability. Islets, 2016, 8, 165-176. Knockdown of hypoxia inducible factor-2α inhibits cell invasion via the downregulation of MMP-2 29 1.8 8 expression in breast cancer cells. Oncology Letters, 2016, 11, 3743-3748. Adrenal Demedullation and Oxygen Supplementation Independently Increase Glucose-Stimulated Insulin Concentrations in Fetal Sheep With Intrauterine Growth Restriction. Endocrinology, 2016, 157, 2.8 2104-2115. Effect of Continuous Positive Airway Pressure on Glycemic Control in Patients with Obstructive Sleep Apnea and Type 2 Diabetes. A Randomized Clinical Trial. American Journal of Respiratory and $\mathbf{31}$ 5.6 169 Critical Care Medicine, 2016, 194, 476-485. The Role of Oxidative Stress and Hypoxia in Pancreatic Beta-Cell Dysfunction in Diabetes Mellitus. Antioxidants and Redox Signaling, 2017, 26, 501-518. 5.4 Hepcidin links gluco-toxicity to pancreatic beta cell dysfunction by inhibiting Pdx-1 expression. 33 1.9 13 Endocrine Connections, 2017, 6, 121-128. Hypoxia reduces HNF4 $\hat{1}$ ±/MODY1 protein expression in pancreatic $\hat{1}^2$ -cells by activating AMP-activated protein kinase. Journal of Biological Chemistry, 2017, 292, 8716-8728. Mitigating hypoxic stress on pancreatic islets via in situ oxygen generating biomaterial. Biomaterials, 35 11.4 88 2017, 129, 139-151. A 2A adenosine receptors control pancreatic dysfunction in highâ€fatâ€dietâ€induced obesity. FASEB Journal, 2017, 31, 4985-4997.

CITATION REPORT

#	Article	IF	CITATIONS
37	Oxidative Stress in Pancreatic Beta Cell Regeneration. Oxidative Medicine and Cellular Longevity, 2017, 2017, 1-9.	4.0	135
38	Hypoxia potentiates LPS-induced inflammatory response and increases cell death by promoting NLRP3 inflammasome activation in pancreatic Î ² cells. Biochemical and Biophysical Research Communications, 2018, 495, 2512-2518.	2.1	30
39	Improvement of islet function and survival by integration of perfluorodecalin into microcapsules <i>in vivo</i> and <i>in vitro</i> . Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e2110-e2122.	2.7	13
40	Neuronal PAS Domain Protein 4 Suppression of Oxygen Sensing Optimizes Metabolism during Excitation of Neuroendocrine Cells. Cell Reports, 2018, 22, 163-174.	6.4	19
41	Down-regulation of CASK in glucotoxicity-induced insulin dysfunction in pancreatic β cells. Acta Biochimica Et Biophysica Sinica, 2018, 50, 281-287.	2.0	8
42	Synergistic effect of HIFâ€∎α and FoxO3a trigger cardiomyocyte apoptosis under hyperglycemic ischemia condition. Journal of Cellular Physiology, 2018, 233, 3660-3671.	4.1	48
43	Anemia is inversely associated with serum C-peptide concentrations in individuals with type 2 diabetes. Medicine (United States), 2018, 97, e11783.	1.0	4
44	Expression kinetics reveal the self-adaptive role of β cells during the progression of diabetes. Biomedicine and Pharmacotherapy, 2018, 106, 472-482.	5.6	6
45	Effect of N-acyl-dopamines on beta cell differentiation and wound healing in diabetic mice. Biochimica Et Biophysica Acta - Molecular Cell Research, 2018, 1865, 1539-1551.	4.1	2
46	Hypoxia Modulates Effects of Fatty Acids on NES2Y Human Pancreatic β-cells. International Journal of Molecular Sciences, 2019, 20, 3441.	4.1	6
47	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
48	Phlda3 regulates beta cell survival during stress. Scientific Reports, 2019, 9, 12827.	3.3	16
49	3D Bioprinting of Functional Islets of Langerhans in an Alginate/Methylcellulose Hydrogel Blend. Advanced Healthcare Materials, 2019, 8, e1801631.	7.6	67
50	Inhibition of brain-type glycogen phosphorylase ameliorates high glucose-induced cardiomyocyte apoptosis via Akt–HIF-1α activation. Biochemistry and Cell Biology, 2020, 98, 458-465.	2.0	4
51	A new research hot spot: The role of NLRP3 inflammasome activation, a key step in pyroptosis, in diabetic complications. Life Sciences, 2020, 240, 117138.	4.3	117
52	Gestational diabetes mellitus in women increased the risk of neonatal infection via inflammation and autophagy in the placenta. Medicine (United States), 2020, 99, e22152.	1.0	40
53	Proteomic identification of aerobic glycolysis as a potential metabolic target for methylglyoxal in adipocytes. Nutrition Research, 2020, 80, 66-77.	2.9	3
54	Dysregulation of 2-oxoglutarate-dependent dioxygenases by hyperglycaemia: does this link diabetes and vascular disease?. Clinical Epigenetics, 2020, 12, 59.	4.1	9

#	Article	IF	CITATIONS
55	Benefits of continuous positive airway pressure on glycaemic control and insulin resistance in patients with type 2 diabetes and obstructive sleep apnoea: A metaâ€analysis. Diabetes, Obesity and Metabolism, 2021, 23, 540-548.	4.4	30
56	Emerging Roles of Metallothioneins in Beta Cell Pathophysiology: Beyond and above Metal Homeostasis and Antioxidant Response. Biology, 2021, 10, 176.	2.8	8
57	Redox Homeostasis in Pancreatic \hat{l}^2 -Cells: From Development to Failure. Antioxidants, 2021, 10, 526.	5.1	22
58	Transcriptome analysis of islets from diabetesâ€resistant and diabetesâ€prone obese mice reveals novel gene regulatory networks involved in betaâ€cell compensation and failure. FASEB Journal, 2021, 35, e21608.	0.5	6
59	The prognostic outcome of †̃type 2 diabetes mellitus and breast cancer' association pivots on hypoxia-hyperglycemia axis. Cancer Cell International, 2021, 21, 351.	4.1	11
60	Effects of water stably-enriched with oxygen as a novel method of tissue oxygenation on mitochondrial function, and as adjuvant therapy for type 2 diabetes in a randomized placebo-controlled trial. PLoS ONE, 2021, 16, e0254619.	2.5	4
61	Hypoxia-inducible factors and diabetes. Journal of Clinical Investigation, 2020, 130, 5063-5073.	8.2	84
62	Hepcidin as a key iron regulator mediates glucotoxicity-induced pancreatic β-cell dysfunction. Endocrine Connections, 2019, 8, 150-161.	1.9	24
63	Mechanisms of β-cell dedifferentiation in diabetes: recent findings and future research directions. Journal of Endocrinology, 2018, 236, R109-R143.	2.6	168
64	Hypoxia Increases \hat{l}^2 -Cell Death by Activating Pancreatic Stellate Cells within the Islet. Diabetes and Metabolism Journal, 2020, 44, 919-927.	4.7	18
65	Volatile anesthetics suppress glucose-stimulated insulin secretion in MIN6 cells by inhibiting glucose-induced activation of hypoxia-inducible factor 1. PeerJ, 2015, 3, e1498.	2.0	9
66	Profiling of genes associated with the murine model of oxygen-induced retinopathy. Molecular Vision, 2013, 19, 775-88.	1.1	8
67	Diabetic mellitus, vascular calcification and hypoxia: A complex and neglected tripartite relationship. Cellular Signalling, 2022, 91, 110219.	3.6	2
68	HIF-1α/FOXO1 axis regulated autophagy is protective for β cell survival under hypoxia in human islets. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2022, 1868, 166356.	3.8	9
69	HIF-1α inhibitor PX-478 preserves pancreatic β cell function in diabetes. Science Translational Medicine, 2022, 14, eaba9112.	12.4	20
70	HIF-2α Preserves Mitochondrial Activity and Glucose Sensing in Compensating β-Cells in Obesity. Diabetes, 2022, 71, 1508-1524.	0.6	1
72	Milk Exosomal microRNAs: Postnatal Promoters of β Cell Proliferation but Potential Inducers of β Cell De-Differentiation in Adult Life. International Journal of Molecular Sciences, 2022, 23, 11503.	4.1	8
73	Single-cell RNA-seq transcriptomic landscape of human and mouse islets and pathological alterations of diabetes. IScience, 2022, 25, 105366.	4.1	7

CITATION REPORT

#	Article	IF	CITATIONS
74	Diabetes Mellitus or Tuberculosis: Which is the Greater Evil?. Current Respiratory Medicine Reviews, 2022, 18, 231-232.	0.2	0
75	Effectiveness of Hydroalcoholic Seed Extract of Securigera securidaca on Pancreatic Local Renin-Angiotensin System and Its Alternative Pathway in Streptozotocin-Induced Diabetic Animal Model. Oxidative Medicine and Cellular Longevity, 2023, 2023, 1-14.	4.0	0
76	Study of FOXO1-interacting proteins using TurboID-based proximity labeling technology. BMC Genomics, 2023, 24, .	2.8	1
77	Hypoxia causes pancreatic $\hat{l}^2 \hat{a} {\in} eell$ dysfunction and impairs insulin secretion by activating the transcriptional repressor BHLHE40. EMBO Reports, 2023, 24, .	4.5	2
78	Pancreatic stellate cells promote pancreatic β-cell death through exosomal microRNA transfer in hypoxia. Molecular and Cellular Endocrinology, 2023, 572, 111947.	3.2	0
79	Activation of aryl hydrocarbon receptor by azatyrosine-phenylbutyric hydroxamide inhibits progression of diabetic retinopathy mice. Biochemical Pharmacology, 2023, , 115700.	4.4	0
80	HIF-1α serves as a co-linker between AD and T2DM. Biomedicine and Pharmacotherapy, 2024, 171, 116158.	5.6	0