

Jean-Christophe Jonas

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

83
papers

5,399
citations

38
h-index

73
g-index

85
ext. papers

5,913
ext. citations

5.8
avg. IF

5.34
L-index

#	Paper	IF	Citations
83	Transcriptome analysis of islets from diabetes-resistant and diabetes-prone obese mice reveals novel gene regulatory networks involved in beta-cell compensation and failure. <i>FASEB Journal</i> , 2021 , 35, e21608	0.9	1
82	Emerging Roles of Metallothioneins in Beta Cell Pathophysiology: Beyond and Above Metal Homeostasis and Antioxidant Response. <i>Biology</i> , 2021 , 10,	4.9	3
81	The lack of functional nicotinamide nucleotide transhydrogenase only moderately contributes to the impairment of glucose tolerance and glucose-stimulated insulin secretion in C57BL/6J vs C57BL/6N mice. <i>Diabetologia</i> , 2021 , 64, 2550-2561	10.3	1
80	Proof-of-concept for 2D/CT element analysis of entire cryofrozen islets of Langerhans using a cryoloop synchrotron X-ray fluorescence setup. <i>Journal of Analytical Atomic Spectrometry</i> , 2020 , 35, 1368-1379 ³	3.7	3
79	Aspalathin Protects Insulin-Producing β Cells against Glucotoxicity and Oxidative Stress-Induced Cell Death. <i>Molecular Nutrition and Food Research</i> , 2020 , 64, e1901009	5.9	13
78	Exenatide induces frataxin expression and improves mitochondrial function in Friedreich ataxia. <i>JCI Insight</i> , 2020 , 5,	9.9	23
77	Nutrient Metabolism, Subcellular Redox State, and Oxidative Stress in Pancreatic Islets and β Cells. <i>Journal of Molecular Biology</i> , 2020 , 432, 1461-1493	6.5	29
76	Inhibition of aquaporin-1 prevents myocardial remodeling by blocking the transmembrane transport of hydrogen peroxide. <i>Science Translational Medicine</i> , 2020 , 12,	17.5	18
75	Phlda3 regulates beta cell survival during stress. <i>Scientific Reports</i> , 2019 , 9, 12827	4.9	8
74	Glucose Acutely Reduces Cytosolic and Mitochondrial HO in Rat Pancreatic Beta Cells. <i>Antioxidants and Redox Signaling</i> , 2019 , 30, 297-313	8.4	10
73	Metallothionein 1 negatively regulates glucose-stimulated insulin secretion and is differentially expressed in conditions of beta cell compensation and failure in mice and humans. <i>Diabetologia</i> , 2019 , 62, 2273-2286	10.3	5
72	Biomarkers of tumour redox status in response to modulations of glutathione and thioredoxin antioxidant pathways. <i>Free Radical Research</i> , 2018 , 52, 256-266	4	8
71	Glucolipotoxic conditions induce β cell iron import, cytosolic ROS formation and apoptosis. <i>Journal of Molecular Endocrinology</i> , 2018 , 61, 69-77	4.5	19
70	Somatostatin Is Only Partly Required for the Glucagonostatic Effect of Glucose but Is Necessary for the Glucagonostatic Effect of K Channel Blockers. <i>Diabetes</i> , 2018 , 67, 2239-2253	0.9	23
69	Mechanisms of β cell dedifferentiation in diabetes: recent findings and future research directions. <i>Journal of Endocrinology</i> , 2018 , 236, R109-R143	4.7	105
68	Pancreatic β cell tRNA hypomethylation and fragmentation link TRMT10A deficiency with diabetes. <i>Nucleic Acids Research</i> , 2018 , 46, 10302-10318	20.1	42
67	NNT reverse mode of operation mediates glucose control of mitochondrial NADPH and glutathione redox state in mouse pancreatic β cells. <i>Molecular Metabolism</i> , 2017 , 6, 535-547	8.8	26

66	NADPH oxidase-2 does not contribute to β cell glucotoxicity in cultured pancreatic islets from C57BL/6J mice. <i>Molecular and Cellular Endocrinology</i> , 2017 , 439, 354-362	4.4	17
65	Hypoxia reduces ER-to-Golgi protein trafficking and increases cell death by inhibiting the adaptive unfolded protein response in mouse beta cells. <i>Diabetologia</i> , 2016 , 59, 1492-1502	10.3	45
64	Glucokinase activation is beneficial or toxic to cultured rat pancreatic islets depending on the prevailing glucose concentration. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2015 , 309, E632-9	6	15
63	Unveiling a common mechanism of apoptosis in β cells and neurons in Friedreich's ataxia. <i>Human Molecular Genetics</i> , 2015 , 24, 2274-86	5.6	47
62	Acute nutrient regulation of the mitochondrial glutathione redox state in pancreatic β cells. <i>Biochemical Journal</i> , 2014 , 460, 411-23	3.8	28
61	The islet estrogen receptor- β s induced by hyperglycemia and protects against oxidative stress-induced insulin-deficient diabetes. <i>PLoS ONE</i> , 2014 , 9, e87941	3.7	32
60	Physiological ER Stress: The Model of Insulin-Secreting Pancreatic β -Cells 2012 , 185-211		1
59	The molecular mechanisms of pancreatic β cell glucotoxicity: recent findings and future research directions. <i>Molecular and Cellular Endocrinology</i> , 2012 , 364, 1-27	4.4	193
58	Dynamic measurements of mitochondrial hydrogen peroxide concentration and glutathione redox state in rat pancreatic β cells using ratiometric fluorescent proteins: confounding effects of pH with HyPer but not roGFP1. <i>Biochemical Journal</i> , 2012 , 441, 971-8	3.8	66
57	Glucose-induced O ₂ consumption activates hypoxia inducible factors 1 and 2 in rat insulin-secreting pancreatic beta-cells. <i>PLoS ONE</i> , 2012 , 7, e29807	3.7	71
56	Mitochondrial oxidative stress contributes differently to rat pancreatic islet cell apoptosis and insulin secretory defects after prolonged culture in a low non-stimulating glucose concentration. <i>Diabetologia</i> , 2012 , 55, 2226-37	10.3	25
55	HDLs protect pancreatic β cells against ER stress by restoring protein folding and trafficking. <i>Diabetes</i> , 2012 , 61, 1100-11	0.9	49
54	MicroRNAs contribute to compensatory β cell expansion during pregnancy and obesity. <i>Journal of Clinical Investigation</i> , 2012 , 122, 3541-51	15.9	122
53	Protective antioxidant and antiapoptotic effects of ZnCl ₂ in rat pancreatic islets cultured in low and high glucose concentrations. <i>PLoS ONE</i> , 2012 , 7, e46831	3.7	33
52	Role of activating transcription factor 3 in low glucose- and thapsigargin-induced apoptosis in cultured mouse islets. <i>Biochemical and Biophysical Research Communications</i> , 2011 , 415, 294-9	3.4	9
51	Adenylyl cyclase 8 is central to glucagon-like peptide 1 signalling and effects of chronically elevated glucose in rat and human pancreatic beta cells. <i>Diabetologia</i> , 2011 , 54, 390-402	10.3	60
50	Mechanisms of control of the free Ca ²⁺ concentration in the endoplasmic reticulum of mouse pancreatic β cells: interplay with cell metabolism and [Ca ²⁺] _c and role of SERCA2b and SERCA3. <i>Diabetes</i> , 2011 , 60, 2533-45	0.9	67
49	Effects of fructosamine-3-kinase deficiency on function and survival of mouse pancreatic islets after prolonged culture in high glucose or ribose concentrations. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2010 , 298, E586-96	6	18

48	Endoplasmic reticulum accumulation of Kir6.2 without activation of ER stress response in islet cells from adult Sur1 knockout mice. <i>Cell and Tissue Research</i> , 2010 , 340, 335-46	4.2	7
47	Cluster analysis of rat pancreatic islet gene mRNA levels after culture in low-, intermediate- and high-glucose concentrations. <i>Diabetologia</i> , 2009 , 52, 463-76	10.3	92
46	Glucose regulation of islet stress responses and beta-cell failure in type 2 diabetes. <i>Diabetes, Obesity and Metabolism</i> , 2009 , 11 Suppl 4, 65-81	6.7	96
45	Effects of c-MYC activation on glucose stimulus-secretion coupling events in mouse pancreatic islets. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2008 , 295, E92-102	6	16
44	Acute nutrient regulation of the unfolded protein response and integrated stress response in cultured rat pancreatic islets. <i>Diabetologia</i> , 2007 , 50, 1442-52	10.3	119
43	Glucose-induced cytosolic pH changes in beta-cells and insulin secretion are not causally related: studies in islets lacking the Na ⁺ /H ⁺ exchanger NHE1. <i>Journal of Biological Chemistry</i> , 2007 , 282, 24538-46	5.4	14
42	Identification and subcellular localization of the Na ⁺ /H ⁺ exchanger and a novel related protein in the endocrine pancreas and adrenal medulla. <i>Journal of Molecular Endocrinology</i> , 2007 , 38, 409-22	4.5	13
41	Glucose-induced mixed [Ca ²⁺] _i oscillations in mouse beta-cells are controlled by the membrane potential and the SERCA3 Ca ²⁺ -ATPase of the endoplasmic reticulum. <i>American Journal of Physiology - Cell Physiology</i> , 2006 , 290, C1503-11	5.4	88
40	Antioxidants N-acetyl-L-cysteine and manganese(III)tetrakis (4-benzoic acid)porphyrin do not prevent beta-cell dysfunction in rat islets cultured in high glucose for 1 wk. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2006 , 291, E137-46	6	14
39	Probe-independent and direct quantification of insulin mRNA and growth hormone mRNA in enriched cell preparations. <i>Diabetes</i> , 2006 , 55, 3214-20	0.9	47
38	Mechanisms of pancreatic beta-cell death in type 1 and type 2 diabetes: many differences, few similarities. <i>Diabetes</i> , 2005 , 54 Suppl 2, S97-107	0.9	1121
37	High glucose and hydrogen peroxide increase c-Myc and haeme-oxygenase 1 mRNA levels in rat pancreatic islets without activating NFkappaB. <i>Diabetologia</i> , 2005 , 48, 496-505	10.3	55
36	Mitochondrial regulation of insulin production in rat pancreatic islets. <i>Diabetologia</i> , 2005 , 48, 1549-59	10.3	17
35	Atypical Ca ²⁺ -induced Ca ²⁺ release from a sarco-endoplasmic reticulum Ca ²⁺ -ATPase 3-dependent Ca ²⁺ pool in mouse pancreatic beta-cells. <i>Journal of Physiology</i> , 2004 , 559, 141-56	3.9	26
34	Induction of adiponectin in skeletal muscle by inflammatory cytokines: in vivo and in vitro studies. <i>Endocrinology</i> , 2004 , 145, 5589-97	4.8	176
33	Increased glucose sensitivity of both triggering and amplifying pathways of insulin secretion in rat islets cultured for 1 wk in high glucose. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2004 , 287, E207-17	6	81
32	Haeme-oxygenase 1 expression in rat pancreatic beta cells is stimulated by supraphysiological glucose concentrations and by cyclic AMP. <i>Diabetologia</i> , 2003 , 46, 1234-44	10.3	45
31	Hierarchy of the beta-cell signals controlling insulin secretion. <i>European Journal of Clinical Investigation</i> , 2003 , 33, 742-50	4.6	139

30	Prolonged culture in low glucose induces apoptosis of rat pancreatic beta-cells through induction of c-myc. <i>Biochemical and Biophysical Research Communications</i> , 2003 , 312, 937-44	3.4	70
29	Corticosteroids induce expression of aquaporin-1 and increase transcellular water transport in rat peritoneum. <i>Journal of the American Society of Nephrology: JASN</i> , 2003 , 14, 555-65	12.7	64
28	Control mechanisms of the oscillations of insulin secretion in vitro and in vivo. <i>Diabetes</i> , 2002 , 51 Suppl 1, S144-51	0.9	129
27	Signals and pools underlying biphasic insulin secretion. <i>Diabetes</i> , 2002 , 51 Suppl 1, S60-7	0.9	132
26	Increased glucose sensitivity of stimulus-secretion coupling in islets from <i>Psammomys obesus</i> after diet induction of diabetes. <i>Diabetes</i> , 2002 , 51, 2552-60	0.9	23
25	Increased expression of antioxidant and antiapoptotic genes in islets that may contribute to beta-cell survival during chronic hyperglycemia. <i>Diabetes</i> , 2002 , 51, 413-23	0.9	159
24	Do oscillations of insulin secretion occur in the absence of cytoplasmic Ca ²⁺ oscillations in beta-cells?. <i>Diabetes</i> , 2002 , 51 Suppl 1, S177-82	0.9	18
23	SERCA3 ablation does not impair insulin secretion but suggests distinct roles of different sarcoendoplasmic reticulum Ca(2+) pumps for Ca(2+) homeostasis in pancreatic beta-cells. <i>Diabetes</i> , 2002 , 51, 3245-53	0.9	75
22	Expression of Ca(2+) Transport Genes in Platelets and Endothelial Cells in Hypertension. <i>Hypertension</i> , 2001 , 37, 135-141	8.5	28
21	High glucose stimulates early response gene c-Myc expression in rat pancreatic beta cells. <i>Journal of Biological Chemistry</i> , 2001 , 276, 35375-81	5.4	82
20	mRNA profiling of pancreatic beta-cells: investigating mechanisms of diabetes 2001 , 187-211		2
19	Adaptation of beta-cell mass to substrate oversupply: enhanced function with normal gene expression. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2001 , 280, E788-96	6	121
18	Gene expression of VEGF and its receptors Flk-1/KDR and Flt-1 in cultured and transplanted rat islets. <i>Transplantation</i> , 2001 , 71, 924-35	1.8	83
17	Signal Transduction. <i>Advances in Molecular and Cell Biology</i> , 1999 , 247-275		3
16	Influence of cell number on the characteristics and synchrony of Ca ²⁺ oscillations in clusters of mouse pancreatic islet cells. <i>Journal of Physiology</i> , 1999 , 520 Pt 3, 839-49	3.9	93
15	Chronic hyperglycemia triggers loss of pancreatic beta cell differentiation in an animal model of diabetes. <i>Journal of Biological Chemistry</i> , 1999 , 274, 14112-21	5.4	424
14	Temporal and quantitative correlations between insulin secretion and stably elevated or oscillatory cytoplasmic Ca ²⁺ in mouse pancreatic beta-cells. <i>Diabetes</i> , 1998 , 47, 1266-1273	0.9	54
13	Sulphonylureas do not increase insulin secretion by a mechanism other than a rise in cytoplasmic Ca ²⁺ in pancreatic B-cells. <i>European Journal of Pharmacology</i> , 1996 , 298, 279-86	5.3	28

12	Possible involvement of a tyrosine kinase-dependent pathway in the regulation of phosphoinositide metabolism by vanadate in normal mouse islets. <i>Biochemical Journal</i> , 1996 , 315 (Pt 1), 49-55	3.8	16
11	Prenylcysteine analogs mimicking the C-terminus of GTP-binding proteins stimulate exocytosis from permeabilized HIT-T15 cells: comparison with the effect of Rab3AL peptide. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 1995 , 1268, 269-78	4.9	15
10	Multiple effects and stimulation of insulin secretion by the tyrosine kinase inhibitor genistein in normal mouse islets. <i>British Journal of Pharmacology</i> , 1995 , 114, 872-80	8.6	65
9	Possible links between glucose-induced changes in the energy state of pancreatic B cells and insulin release. Unmasking by decreasing a stable pool of adenine nucleotides in mouse islets. <i>Journal of Clinical Investigation</i> , 1995 , 96, 1738-45	15.9	88
8	In vitro stimulation of insulin release by SL 84.0418, a new alpha 2-adrenoceptor antagonist. <i>European Journal of Pharmacology</i> , 1994 , 254, 27-33	5.3	12
7	The imidazoline SL 84.0418 shows stereoselectivity in blocking alpha 2-adrenoceptors but not ATP-sensitive K ⁺ channels in pancreatic B-cells. <i>European Journal of Pharmacology</i> , 1994 , 264, 81-4	5.3	13
6	Dynamics of Ca ²⁺ and guanosine 5S[gamma-thio]triphosphate action on insulin secretion from alpha-toxin-permeabilized HIT-T15 cells. <i>Biochemical Journal</i> , 1994 , 301 (Pt 2), 523-9	3.8	45
5	Culture duration and conditions affect the oscillations of cytoplasmic calcium concentration induced by glucose in mouse pancreatic islets. <i>Diabetologia</i> , 1994 , 37, 1007-1014	10.3	1
4	Imidazoline antagonists of alpha 2-adrenoceptors increase insulin release in vitro by inhibiting ATP-sensitive K ⁺ channels in pancreatic beta-cells. <i>British Journal of Pharmacology</i> , 1992 , 107, 8-14	8.6	84
3	Clonidine inhibits ATP-sensitive K ⁺ channels in mouse pancreatic beta-cells. <i>British Journal of Pharmacology</i> , 1991 , 104, 385-90	8.6	35
2	Stable and diffusible pools of nucleotides in pancreatic islet cells		26
1	Glucose Regulates Expression of Inositol 1,4,5-Trisphosphate Receptor Isoforms in Isolated Rat Pancreatic Islets		10