Guy A Rutter

List of Publications by Citations

336 papers	16,794 citations	73 h-index	113 g-index
369 ext. papers	19,160 ext. citations	6.3 avg, IF	6.84 L-index

#	Paper	IF	Citations
336	Initiation and execution of lipotoxic ER stress in pancreatic beta-cells. *Journal of Cell Science*, **2008**, 121, 2308-18	5.3	449
335	Genetically encoded FRET sensors to monitor intracellular Zn2+ homeostasis. *Nature Methods*, **2009** , 6, 737-40	21.6	344
334	Insulin storage and glucose homeostasis in mice null for the granule zinc transporter ZnT8 and studies of the type 2 diabetes-associated variants. *Diabetes*, **2009**, 58, 2070-83	0.9	302
333	Roles of 5PAMP-activated protein kinase (AMPK) in mammalian glucose homoeostasis. *Biochemical Journal*, **2003**, 375, 1-16	3.8	288
332	The Role of Oxidative Stress and Hypoxia in Pancreatic Beta-Cell Dysfunction in Diabetes Mellitus. *Antioxidants and Redox Signaling*, **2017**, 26, 501-518	8.4	273
331	MicroRNA-124a regulates Foxa2 expression and intracellular signaling in pancreatic beta-cell lines. *Journal of Biological Chemistry*, **2007**, 282, 19575-88	5.4	271
330	Glucose generates sub-plasma membrane ATP microdomains in single islet beta-cells. Potential role for strategically located mitochondria. *Journal of Biological Chemistry*, **1999**, 274, 13281-91	5.4	253
329	Beta Cell Hubs Dictate Pancreatic Islet Responses to Glucose. *Cell Metabolism*, **2016**, 24, 389-401	24.6	248
328	Mitochondrial calcium as a key regulator of mitochondrial ATP production in mammalian cells. *Biochimica Et Biophysica Acta - Bioenergetics*, **2009**, 1787, 1324-33	4.6	243
327	Metformin activates a duodenal Ampk-dependent pathway to lower hepatic glucose production in rats. *Nature Medicine*, **2015**, 21, 506-11	50.5	242
326	Role for AMP-activated protein kinase in glucose-stimulated insulin secretion and preproinsulin gene expression. *Biochemical Journal*, **2003**, 371, 761-74	3.8	235
325	Pancreatic cell identity, glucose sensing and the control of insulin secretion. *Biochemical Journal*, **2015**, 466, 203-18	3.8	233
324	Glucose or insulin, but not zinc ions, inhibit glucagon secretion from mouse pancreatic alpha-cells. *Diabetes*, **2005**, 54, 1789-97	0.9	219
323	miR-29a and miR-29b contribute to pancreatic beta-cell-specific silencing of monocarboxylate transporter 1 (Mct1). *Molecular and Cellular Biology*, **2011**, 31, 3182-94	4.8	208
322	Regulation of ATP production by mitochondrial Ca(2+). *Cell Calcium*, **2012**, 52, 28-35	4	201
321	Cytoplasmic dynein regulates the subcellular distribution of mitochondria by controlling the recruitment of the fission factor dynamin-related protein-1. *Journal of Cell Science*, **2004**, 117, 4389-400	5.3	190
320	Physical exercise-induced hypoglycemia caused by failed silencing of monocarboxylate transporter 1 in pancreatic beta cells. *American Journal of Human Genetics*, **2007**, 81, 467-74	11	176

319	Multiple forms of "kiss-and-run" exocytosis revealed by evanescent wave microscopy. *Current Biology*, **2003**, 13, 563-7	6.3	176
318	Regulation of mitochondrial metabolism by ER Ca2+ release: an intimate connection. *Trends in Biochemical Sciences*, **2000**, 25, 215-21	10.3	175
317	Dense core secretory vesicles revealed as a dynamic Ca(2+) store in neuroendocrine cells with a vesicle-associated membrane protein aequorin chimaera. *Journal of Cell Biology*, **2001**, 155, 41-51	7.3	174
316	Glucagon-like peptide-1 mobilizes intracellular Ca2+ and stimulates mitochondrial ATP synthesis in pancreatic MIN6 beta-cells. *Biochemical Journal*, **2003**, 369, 287-99	3.8	165
315	Expanding role of AMPK in endocrinology. *Trends in Endocrinology and Metabolism*, **2006**, 17, 205-15	8.8	159
314	Mechanisms of dense core vesicle recapture following "kiss and run" ("cavicapture") exocytosis in insulin-secreting cells. *Journal of Biological Chemistry*, **2004**, 279, 47115-24	5.4	159
313	TCF7L2 regulates late events in insulin secretion from pancreatic islet beta-cells. *Diabetes*, **2009**, 58, 894-905	0.9	157
312	Lipotoxicity disrupts incretin-regulated human ⊞cell connectivity. *Journal of Clinical Investigation*, **2013**, 123, 4182-94	15.9	155
311	Nutrient-secretion coupling in the pancreatic islet beta-cell: recent advances. *Molecular Aspects of Medicine*, **2001**, 22, 247-84	16.7	153
310	Dynamic imaging of free cytosolic ATP concentration during fuel sensing by rat hypothalamic neurones: evidence for ATP-independent control of ATP-sensitive K(+) channels. *Journal of Physiology*, **2002**, 544, 429-45	3.9	151
309	Ryanodine receptor type I and nicotinic acid adenine dinucleotide phosphate receptors mediate Ca2+ release from insulin-containing vesicles in living pancreatic beta-cells (MIN6). *Journal of Biological Chemistry*, **2003**, 278, 11057-64	5.4	144
308	Myosin Va transports dense core secretory vesicles in pancreatic MIN6 beta-cells. *Molecular Biology of the Cell*, **2005**, 16, 2670-80	3.5	136
307	Secretory-granule dynamics visualized in vivo with a phogrin-green fluorescent protein chimaera. *Biochemical Journal*, **1998**, 333 (Pt 1), 193-9	3.8	129
306	Involvement of conventional kinesin in glucose-stimulated secretory granule movements and exocytosis in clonal pancreatic beta-cells. *Journal of Cell Science*, **2002**, 115, 4177-89	5.3	128
305	Metformin, but not leptin, regulates AMP-activated protein kinase in pancreatic islets: impact on glucose-stimulated insulin secretion. *American Journal of Physiology - Endocrinology and Metabolism* , **2004**, 286, E1023-31	6	127
304	Simultaneous evanescent wave imaging of insulin vesicle membrane and cargo during a single exocytotic event. *Current Biology*, **2000**, 10, 1307-10	6.3	126
303	Calcium signaling in pancreatic ⊞cells in health and in Type 2 diabetes. *Cell Calcium*, **2014**, 56, 340-61	4	125
302	The mitochondrial Ca2+ uniporter MCU is essential for glucose-induced ATP increases in pancreatic ⊞cells. *PLoS ONE*, **2012**, 7, e39722	3.7	122

301	Glucose-stimulated oscillations in free cytosolic ATP concentration imaged in single islet beta-cells: evidence for a Ca2+-dependent mechanism. *Diabetes*, **2002**, 51 Suppl 1, S162-70	0.9	115
300	Insulin gene mutations resulting in early-onset diabetes: marked differences in clinical presentation, metabolic status, and pathogenic effect through endoplasmic reticulum retention. *Diabetes*, **2010**, 59, 653-61	0.9	112
299	Identification of genes selectively disallowed in the pancreatic islet. *Islets*, **2010**, 2, 89-95	2	112
298	Imaging dynamic insulin release using a fluorescent zinc indicator for monitoring induced exocytotic release (ZIMIR). *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 21063-8	11.5	112
297	Impaired glucose homeostasis in transgenic mice expressing the human transient neonatal diabetes mellitus locus, TNDM. *Journal of Clinical Investigation*, **2004**, 114, 339-348	15.9	108
296	Dynamic changes in cytosolic and mitochondrial ATP levels in pancreatic acinar cells. *Gastroenterology*, **2010**, 138, 1976-87	13.3	101
295	Zinc and diabetes. *Archives of Biochemistry and Biophysics*, **2016**, 611, 79-85	4.1	96
294	Class II phosphoinositide 3-kinase regulates exocytosis of insulin granules in pancreatic beta cells. *Journal of Biological Chemistry*, **2011**, 286, 4216-25	5.4	96
293	Coupling between cytosolic and mitochondrial calcium oscillations: role in the regulation of hepatic metabolism. *Biochimica Et Biophysica Acta - Bioenergetics*, **1998**, 1366, 17-32	4.6	95
292	Ca2+ microdomains and the control of insulin secretion. *Cell Calcium*, **2006**, 40, 539-51	4	92
291	Glucose-stimulated preproinsulin gene expression and nuclear trans-location of pancreatic duodenum homeobox-1 require activation of phosphatidylinositol 3-kinase but not p38 MAPK/SAPK2. *Journal of Biological Chemistry*, **2000**, 275, 15977-84	5.4	92
290	ADCY5 couples glucose to insulin secretion in human islets. *Diabetes*, **2014**, 63, 3009-21	0.9	91
289	Glucose regulates free cytosolic Zn^{2+} concentration, Slc39 (ZiP), and metallothionein gene expression in primary pancreatic islet β-cells. *Journal of Biological Chemistry*, **2011**, 286, 25778-89	5.4	91
288	Optical control of insulin release using a photoswitchable sulfonylurea. *Nature Communications*, **2014**, 5, 5116	17.4	90
287	Inhibition of mitochondrial Na+-Ca2+ exchange restores agonist-induced ATP production and Ca2+ handling in human complex I deficiency. *Journal of Biological Chemistry*, **2004**, 279, 40328-36	5.4	89
286	Targeting GLP-1 receptor trafficking to improve agonist efficacy. *Nature Communications*, **2018**, 9, 1602	17.4	88
285	Abnormal glucose tolerance and insulin secretion in pancreas-specific Tcf7l2-null mice. *Diabetologia* , **2012**, 55, 2667-2676	10.3	88
284	Inhibition by glucose or leptin of hypothalamic neurons expressing neuropeptide Y requires changes in AMP-activated protein kinase activity. *Diabetologia*, **2007**, 50, 168-77	10.3	88

283	Over-expression of sterol-regulatory-element-binding protein-1c (SREBP1c) in rat pancreatic islets induces lipogenesis and decreases glucose-stimulated insulin release: modulation by 5-aminoimidazole-4-carboxamide ribonucleoside (AICAR). *Biochemical Journal*, **2004**, 378, 769-78	3.8	88
282	Metformin prevents glucose-induced protein kinase C-beta2 activation in human umbilical vein endothelial cells through an antioxidant mechanism. *Diabetes*, **2005**, 54, 1123-31	0.9	87
281	Ablation of AMP-activated protein kinase alpha1 and alpha2 from mouse pancreatic beta cells and RIP2.Cre neurons suppresses insulin release in vivo. *Diabetologia*, **2010**, 53, 924-36	10.3	86
280	The zinc transporter ZIP12 regulates the pulmonary vascular response to chronic hypoxia. *Nature*, **2015**, 524, 356-60	50.4	85
279	Imaging Ca2+ concentration changes at the secretory vesicle surface with a recombinant targeted cameleon. *Current Biology*, **1999**, 9, 915-8	6.3	85
278	Systems biology of the IMIDIA biobank from organ donors and pancreatectomised patients defines a novel transcriptomic signature of islets from individuals with type 2 diabetes. *Diabetologia*, **2018**, 61, 641-657	10.3	84
277	Photoswitchable diacylglycerols enable optical control of protein kinase C. *Nature Chemical Biology*, **2016**, 12, 755-62	11.7	83
276	Mitochondrial and ER-targeted eCALWY probes reveal high levels of free Zn2+. *ACS Chemical Biology*, **2014**, 9, 2111-20	4.9	83
275	5PAMP-activated protein kinase controls insulin-containing secretory vesicle dynamics. *Journal of Biological Chemistry*, **2003**, 278, 52042-51	5.4	82
274	Dynamics of glucose-induced membrane recruitment of protein kinase C beta II in living pancreatic islet beta-cells. *Journal of Biological Chemistry*, **2002**, 277, 37702-10	5.4	79
273	Mitochondrial priming modifies Ca2+ oscillations and insulin secretion in pancreatic islets. *Biochemical Journal*, **2001**, 353, 175-180	3.8	79
272	Insulin targeting to the regulated secretory pathway after fusion with green fluorescent protein and firefly luciferase. *Biochemical Journal*, **1998**, 331 (Pt 2), 669-75	3.8	79
271	Rfx6 maintains the functional identity of adult pancreatic ‡cells. *Cell Reports*, **2014**, 9, 2219-32	10.6	78
270	Stimulation of AMP-activated protein kinase is essential for the induction of drug metabolizing enzymes by phenobarbital in human and mouse liver. *Molecular Pharmacology*, **2006**, 70, 1925-34	4.3	77
269	ATP regulation in adult rat cardiomyocytes: time-resolved decoding of rapid mitochondrial calcium spiking imaged with targeted photoproteins. *Journal of Biological Chemistry*, **2006**, 281, 28058-67	5.4	77
268	Dynamic imaging of endoplasmic reticulum Ca2+ concentration in insulin-secreting MIN6 Cells using recombinant targeted cameleons: roles of sarco(endo)plasmic reticulum Ca2+-ATPase (SERCA)-2 and ryanodine receptors. *Diabetes*, **2002**, 51 Suppl 1, S190-201	0.9	76
267	Glucose-dependent translocation of insulin promoter factor-1 (IPF-1) between the nuclear periphery and the nucleoplasm of single MIN6 beta-cells. *Journal of Biological Chemistry*, **1998**, 273, 23241-7	5.4	76
266	SLC30A8 mutations in type 2 diabetes. *Diabetologia*, **2015**, 58, 31-6	10.3	73

265	Identification of a Ras GTPase-activating protein regulated by receptor-mediated Ca2+ oscillations. *EMBO Journal*, **2004**, 23, 1749-60	13	73
264	Distinct roles for insulin and insulin-like growth factor-1 receptors in pancreatic beta-cell glucose sensing revealed by RNA silencing. *Biochemical Journal*, **2004**, 377, 149-58	3.8	73
263	Overexpression of monocarboxylate transporter-1 (SLC16A1) in mouse pancreatic β-cells leads to relative hyperinsulinism during exercise. *Diabetes*, **2012**, 61, 1719-25	0.9	72
262	When less is more: the forbidden fruits of gene repression in the adult β-cell. *Diabetes, Obesity and Metabolism*, **2013**, 15, 503-12	6.7	71
261	Leader β-cells coordinate Ca dynamics across pancreatic islets in vivo. *Nature Metabolism*, **2019**, 1, 615-629	14.6	70
260	Role for plasma membrane-related Ca2+-ATPase-1 (ATP2C1) in pancreatic beta-cell Ca2+ homeostasis revealed by RNA silencing. *Diabetes*, **2004**, 53, 393-400	0.9	70
259	Selective disruption of Tcf7l2 in the pancreatic β cell impairs secretory function and lowers β cell mass. *Human Molecular Genetics*, **2015**, 24, 1390-9	5.6	68
258	Think zinc: New roles for zinc in the control of insulin secretion. *Islets*, **2010**, 2, 49-50	2	68
257	Hypothalamic AMP-activated protein kinase regulates glucose production. *Diabetes*, **2010**, 59, 2435-43	0.9	68
256	ChREBP binding to fatty acid synthase and L-type pyruvate kinase genes is stimulated by glucose in pancreatic beta-cells. *Journal of Lipid Research*, **2006**, 47, 2482-91	6.3	68
255	AMP-activated protein kinase: a new beta-cell glucose sensor?: Regulation by amino acids and calcium ions. *Diabetes*, **2004**, 53 Suppl 3, S67-74	0.9	67
254	Kinesin I and cytoplasmic dynein orchestrate glucose-stimulated insulin-containing vesicle movements in clonal MIN6 beta-cells. *Biochemical and Biophysical Research Communications*, **2003**, 311, 272-82	3.4	67
253	Regulation of gene expression by glucose in pancreatic beta -cells (MIN6) via insulin secretion and activation of phosphatidylinositol 3Pkinase. *Journal of Biological Chemistry*, **2000**, 275, 36269-77	5.4	67
252	Involvement of MAP kinase in insulin signalling revealed by non-invasive imaging of luciferase gene expression in single living cells. *Current Biology*, **1995**, 5, 890-9	6.3	66
251	Chronic Activation of β AMPK Induces Obesity and Reduces β Cell Function. *Cell Metabolism*, **2016**, 23, 821-36	24.6	66
250	Regulation of mitochondrial glycerol-phosphate dehydrogenase by Ca2+ within electropermeabilized insulin-secreting cells (INS-1). *Biochimica Et Biophysica Acta - Molecular Cell Research*, **1992**, 1175, 107-13	4.9	65
249	eZinCh-2: A Versatile, Genetically Encoded FRET Sensor for Cytosolic and Intraorganelle Zn(2+) Imaging. *ACS Chemical Biology*, **2015**, 10, 2126-34	4.9	64
248	The AMP-regulated kinase family: enigmatic targets for diabetes therapy. *Molecular and Cellular Endocrinology*, **2009**, 297, 41-9	4.4	64

247	Inhibition of AMP-activated protein kinase protects pancreatic beta-cells from cytokine-mediated apoptosis and CD8+ T-cell-induced cytotoxicity. *Diabetes*, **2008**, 57, 415-23	0.9	63
246	Sodium-potassium ATPase 1 subunit is a molecular partner of Wolframin, an endoplasmic reticulum protein involved in ER stress. *Human Molecular Genetics*, **2008**, 17, 190-200	5.6	63
245	Involvement of Per-Arnt-Sim (PAS) kinase in the stimulation of preproinsulin and pancreatic duodenum homeobox 1 gene expression by glucose. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 8319-24	11.5	63
244	Upstream stimulatory factor-2 (USF2) activity is required for glucose stimulation of L-pyruvate kinase promoter activity in single living islet beta-cells. *Journal of Biological Chemistry*, **1997**, 272, 20636-40	5.4	62
243	LKB1 deletion with the RIP2.Cre transgene modifies pancreatic beta-cell morphology and enhances insulin secretion in vivo. *American Journal of Physiology - Endocrinology and Metabolism*, **2010**, 298, E1261-73	6	61
242	LKB1 and AMPK differentially regulate pancreatic ╫-cell identity. *FASEB Journal*, **2014**, 28, 4972-85	0.9	60
241	Optical Control of Insulin Secretion Using an Incretin Switch. *Angewandte Chemie - International Edition*, **2015**, 54, 15565-9	16.4	60
240	Frequency-dependent mitochondrial Ca(2+) accumulation regulates ATP synthesis in pancreatic ╫ cells. *Pflugers Archiv European Journal of Physiology*, **2013**, 465, 543-54	4.6	59
239	Glucose-dependent regulation of gamma-aminobutyric acid (GABA A) receptor expression in mouse pancreatic islet alpha-cells. *Diabetes*, **2007**, 56, 320-7	0.9	58
238	Sustained exposure to high glucose concentrations modifies glucose signaling and the mechanics of secretory vesicle fusion in primary rat pancreatic beta-cells. *Diabetes*, **2006**, 55, 1057-65	0.9	57
237	Mitochondrial localization as a determinant of capacitative Ca2+ entry in HeLa cells. *Cell Calcium*, **2004**, 36, 499-508	4	57
236	Mitochondrial priming modifies Ca2+ oscillations and insulin secretion in pancreatic islets. *Biochemical Journal*, **2001**, 353, 175-80	3.8	57
235	Stimulation of acetyl-CoA carboxylase gene expression by glucose requires insulin release and sterol regulatory element binding protein 1c in pancreatic MIN6 beta-cells. *Diabetes*, **2002**, 51, 2536-45	0.9	57
234	Mammalian exocyst complex is required for the docking step of insulin vesicle exocytosis. *Journal of Biological Chemistry*, **2005**, 280, 25565-70	5.4	56
233	Impaired glucose homeostasis in transgenic mice expressing the human transient neonatal diabetes mellitus locus, TNDM. *Journal of Clinical Investigation*, **2004**, 114, 339-48	15.9	56
232	TCF7L2 controls insulin gene expression and insulin secretion in mature pancreatic beta-cells. *Biochemical Society Transactions*, **2008**, 36, 357-9	5.1	55
231	Glucose is necessary for embryonic pancreatic endocrine cell differentiation. *Journal of Biological Chemistry*, **2007**, 282, 15228-37	5.4	55
230	An essential role for the Zn transporter ZIP7 in B cell development. *Nature Immunology*, **2019**, 20, 350-361	19.1	54

229	DICER Inactivation Identifies Pancreatic ╫Cell "Disallowed" Genes Targeted by MicroRNAs. *Molecular Endocrinology*, **2015**, 29, 1067-79		53
228	Carbohydrate-responsive element-binding protein (ChREBP) is a negative regulator of ARNT/HIF-1beta gene expression in pancreatic islet beta-cells. *Diabetes*, **2010**, 59, 153-60	0.9	53
227	The mitochondrial Na+/Ca2+ exchanger upregulates glucose dependent Ca2+ signalling linked to insulin secretion. *PLoS ONE*, **2012**, 7, e46649	3.7	52
226	A rare mutation in ABCC8/SUR1 leading to altered ATP-sensitive K+ channel activity and beta-cell glucose sensing is associated with type 2 diabetes in adults. *Diabetes*, **2008**, 57, 1595-604	0.9	52
225	Molecular Genetic Regulation of Slc30a8/ZnT8 Reveals a Positive Association With Glucose Tolerance. *Molecular Endocrinology*, **2016**, 30, 77-91		51
224	Minireview: intraislet regulation of insulin secretion in humans. *Molecular Endocrinology*, **2013**, 27, 1984-95		51
223	Decreased STARD10 Expression Is Associated with Defective Insulin Secretion in Humans and Mice. *American Journal of Human Genetics*, **2017**, 100, 238-256	11	50
222	Lipid-tuned Zinc Transport Activity of Human ZnT8 Protein Correlates with Risk for Type-2 Diabetes. *Journal of Biological Chemistry*, **2016**, 291, 26950-26957	5.4	50
221	Insulin secretion is controlled by mGlu5 metabotropic glutamate receptors. *Molecular Pharmacology*, **2006**, 69, 1234-41	4.3	49
220	ATP-dependent interaction of the cytosolic domains of the inwardly rectifying K+ channel Kir6.2 revealed by fluorescence resonance energy transfer. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 76-81	11.5	49
219	The ╪cell in diabetes mellitus. *Nature Reviews Endocrinology*, **2018**, 14, 694-704	15.2	49
218	Dual-modal magnetic resonance/fluorescent zinc probes for pancreatic ╫cell mass imaging. *Chemistry - A European Journal*, **2015**, 21, 5023-33	4.8	47
217	Incretin-modulated beta cell energetics in intact islets of Langerhans. *Molecular Endocrinology*, **2014**, 28, 860-71		47
216	Overexpression of lactate dehydrogenase A attenuates glucose-induced insulin secretion in stable MIN-6 beta-cell lines. *FEBS Letters*, **1998**, 430, 213-6	3.8	47
215	mTORC1 to AMPK switching underlies ╫cell metabolic plasticity during maturation and diabetes. *Journal of Clinical Investigation*, **2019**, 129, 4124-4137	15.9	47
214	Hyperglycemia-Induced Changes in ZIP7 and ZnT7 Expression Cause Zn Release From the Sarco(endo)plasmic Reticulum and Mediate ER Stress in the Heart. *Diabetes*, **2017**, 66, 1346-1358	0.9	46
213	Beta cell connectivity in pancreatic islets: a type 2 diabetes target?. *Cellular and Molecular Life Sciences*, **2015**, 72, 453-467	10.3	46
212	Adrenaline Stimulates Glucagon Secretion by Tpc2-Dependent Ca Mobilization From Acidic Stores in Pancreatic ╪Cells. *Diabetes*, **2018**, 67, 1128-1139	0.9	46

211	Biologically targeted probes for Zn: a diversity oriented modular "click-SAr-click" approach Electronic supplementary information (ESI) available: Full experimental details including characterisation of all novel compounds can be found in the ESI. See DOI: 10.1039/c4sc01249f. *Chemical Science*, **2014**, 5, 3528-3535	9.4	46
210	Limited role for SREBP-1c in defective glucose-induced insulin secretion from Zucker diabetic fatty rat islets: a functional and gene profiling analysis. *American Journal of Physiology - Endocrinology and Metabolism*, **2006**, 291, E982-94	6	46
209	Loss of ZnT8 function protects against diabetes by enhanced insulin secretion. *Nature Genetics*, **2019**, 51, 1596-1606	36.3	45
208	Real-time imaging of gene expression in single living cells. *Chemistry and Biology*, **1998**, 5, R285-90		44
207	Intracellular zinc in insulin secretion and action: a determinant of diabetes risk?. *Proceedings of the Nutrition Society*, **2016**, 75, 61-72	2.9	44
206	SLC30A9 mutation affecting intracellular zinc homeostasis causes a novel cerebro-renal syndrome. *Brain*, **2017**, 140, 928-939	11.2	43
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204	Insulin secretion: feed-forward control of insulin biosynthesis?. *Current Biology*, **1999**, 9, R443-5	6.3	43
203	Control of insulin secretion by GLP-1. *Peptides*, **2018**, 100, 75-84	3.8	42
202	Pancreatic cell Na+ channels control global Ca2+ signaling and oxidative metabolism by inducing Na+ and Ca2+ responses that are propagated into mitochondria. *FASEB Journal*, **2014**, 28, 3301-12	0.9	42
201	Ca2(+)-binding to citrate cycle dehydrogenases. *International Journal of Biochemistry & Cell Biology*, **1990**, 22, 1081-8		42
200	Lanthanide(III) complexes of rhodamine-DO3A conjugates as agents for dual-modal imaging. *Inorganic Chemistry*, **2013**, 52, 14284-93	5.1	41
199	AMP-activated protein kinase regulates glucagon secretion from mouse pancreatic alpha cells. *Diabetologia*, **2011**, 54, 125-34	10.3	41
198	Isolation and culture of mouse pancreatic islets for ex vivo imaging studies with trappable or recombinant fluorescent probes. *Methods in Molecular Biology*, **2010**, 633, 171-84	1.4	40
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195	Studies into the mechanism whereby insulin activates pyruvate dehydrogenase complex in adipose tissue. *Annals of the New York Academy of Sciences*, **1989**, 573, 285-96	6.5	39
194	Glucocorticoids Reprogram Cell Signaling to Preserve Insulin Secretion. *Diabetes*, **2018**, 67, 278-290	0.9	39

193	Per-arnt-sim (PAS) domain-containing protein kinase is downregulated in human islets in type 2 diabetes and regulates glucagon secretion. *Diabetologia*, **2011**, 54, 819-27	10.3	38
192	Glucose-induced nuclear shuttling of ChREBP is mediated by sorcin and Ca(2+) ions in pancreatic β-cells. *Diabetes*, **2012**, 61, 574-85	0.9	38
191	Glucose sensing by hypothalamic neurones and pancreatic islet cells: AMPle evidence for common mechanisms?. *Experimental Physiology*, **2007**, 92, 311-9	2.4	37
190	Glucose metabolism and glutamate analog acutely alkalinize pH of insulin secretory vesicles of pancreatic beta-cells. *American Journal of Physiology - Endocrinology and Metabolism*, **2003**, 285, E262-71	6	37
189	Covid-19 and Diabetes: A Complex Bidirectional Relationship. *Frontiers in Endocrinology*, **2020**, 11, 582936	5.7	36
188	Allosteric Optical Control of a Class B G-Protein-Coupled Receptor. *Angewandte Chemie - International Edition*, **2016**, 55, 5865-8	16.4	36
187	MiRNAs in β-Cell Development, Identity, and Disease. *Frontiers in Genetics*, **2016**, 7, 226	4.5	36
186	Analysis of Purified Pancreatic Islet Beta and Alpha Cell Transcriptomes Reveals 11β-Hydroxysteroid Dehydrogenase (Hsd11b1) as a Novel Disallowed Gene. *Frontiers in Genetics*, **2017**, 8, 41	4.5	36
185	ATP depletion inhibits Ca2+ release, influx and extrusion in pancreatic acinar cells but not pathological Ca2+ responses induced by bile. *Pflugers Archiv European Journal of Physiology*, **2008**, 455, 1025-39	4.6	35
184	PPARβ/δ affects pancreatic β cell mass and insulin secretion in mice. *Journal of Clinical Investigation* , **2012**, 122, 4105-17	15.9	35
183	The transcription factor is required for pancreatic β cell identity, glucose-regulated ATP synthesis, and Ca dynamics in adult mice. *Journal of Biological Chemistry*, **2017**, 292, 8892-8906	5.4	34
182	Agonist-induced membrane nanodomain clustering drives GLP-1 receptor responses in pancreatic beta cells. *PLoS Biology*, **2019**, 17, e3000097	9.7	34
181	The beta-cell in type 2 diabetes and in obesity. *Frontiers of Hormone Research*, **2008**, 36, 118-134	3.5	34
180	Kiss and run exocytosis of dense core secretory vesicles. *NeuroReport*, **2004**, 15, 79-81	1.7	34
179	Insulin-stimulated fatty acid synthase gene expression does not require increased sterol response element binding protein 1 transcription in primary adipocytes. *Biochemical and Biophysical Research Communications*, **2002**, 291, 439-43	3.4	34
178	Insulin vesicle release: walk, kiss, pause ... then run. *Physiology*, **2006**, 21, 189-96	9.8	33
177	Sarco(endo)plasmic reticulum ATPase is a molecular partner of Wolfram syndrome 1 protein, which negatively regulates its expression. *Human Molecular Genetics*, **2015**, 24, 814-27	5.6	32
176	Sorcin Links Pancreatic β-Cell Lipotoxicity to ER Ca2+ Stores. *Diabetes*, **2016**, 65, 1009-21	0.9	32

175	The Zinc Transporter Slc30a8/ZnT8 Is Required in a Subpopulation of Pancreatic □Cells for Hypoglycemia-induced Glucagon Secretion. *Journal of Biological Chemistry*, **2015**, 290, 21432-42	5.4	32
174	A role for the CREB co-activator CRTC2 in the hypothalamic mechanisms linking glucose sensing with gene regulation. *EMBO Reports*, **2009**, 10, 1175-81	6.5	32
173	Temperature-sensitive random insulin granule diffusion is a prerequisite for recruiting granules for release. *Traffic*, **2004**, 5, 750-62	5.7	32
172	Limited impact on glucose homeostasis of leptin receptor deletion from insulin- or proglucagon-expressing cells. *Molecular Metabolism*, **2015**, 4, 619-30	8.8	31
171	Pancreatic □-cell imaging in humans: fiction or option?. *Diabetes, Obesity and Metabolism*, **2016**, 18, 6-15	6.7	31
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169	Hypoxia lowers SLC30A8/ZnT8 expression and free cytosolic Zn2+ in pancreatic beta cells. *Diabetologia*, **2014**, 57, 1635-44	10.3	31
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