

Patrik Rorsman

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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.

315
papers

28,226
citations

92
h-index

158
g-index

322
ext. papers

30,764
ext. citations

9.1
avg. IF

6.98
L-index

#	Paper	IF	Citations
315	A pancreatic islet-specific microRNA regulates insulin secretion. <i>Nature</i> , 2004 , 432, 226-30	50.4	1714
314	The obesity-associated FTO gene encodes a 2-oxoglutarate-dependent nucleic acid demethylase. <i>Science</i> , 2007 , 318, 1469-72	33.3	1119
313	Electrophysiology of the pancreatic beta-cell. <i>Progress in Biophysics and Molecular Biology</i> , 1989 , 54, 87-143	14.7	847
312	Diabetes mellitus and the β cell: the last ten years. <i>Cell</i> , 2012 , 148, 1160-71	56.2	640
311	Insulin granule dynamics in pancreatic beta cells. <i>Diabetologia</i> , 2003 , 46, 1029-45	10.3	599
310	miR-375 maintains normal pancreatic alpha- and beta-cell mass. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 5813-8	11.5	594
309	Opposite effects of tolbutamide and diazoxide on the ATP-dependent K ⁺ channel in mouse pancreatic beta-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1986 , 407, 493-9	4.6	482
308	Regulation of insulin secretion in human pancreatic islets. <i>Annual Review of Physiology</i> , 2013 , 75, 155-79	23.1	399
307	Glucose-inhibition of glucagon secretion involves activation of GABA _A -receptor chloride channels. <i>Nature</i> , 1989 , 341, 233-6	50.4	391
306	Calcium-independent potentiation of insulin release by cyclic AMP in single beta-cells. <i>Nature</i> , 1993 , 363, 356-8	50.4	340
305	Calcium and delayed potassium currents in mouse pancreatic beta-cells under voltage-clamp conditions. <i>Journal of Physiology</i> , 1986 , 374, 531-50	3.9	320
304	Voltage-gated ion channels in human pancreatic beta-cells: electrophysiological characterization and role in insulin secretion. <i>Diabetes</i> , 2008 , 57, 1618-28	0.9	315
303	Glucose dependent K ⁺ -channels in pancreatic beta-cells are regulated by intracellular ATP. <i>Pflugers Archiv European Journal of Physiology</i> , 1985 , 405, 305-9	4.6	300
302	Deletion of the G protein-coupled receptor 30 impairs glucose tolerance, reduces bone growth, increases blood pressure, and eliminates estradiol-stimulated insulin release in female mice. <i>Endocrinology</i> , 2009 , 150, 687-98	4.8	296
301	Gene expression profiling in single cells from the pancreatic islets of Langerhans reveals lognormal distribution of mRNA levels. <i>Genome Research</i> , 2005 , 15, 1388-92	9.7	292
300	Pancreatic β -Cell Electrical Activity and Insulin Secretion: Of Mice and Men. <i>Physiological Reviews</i> , 2018 , 98, 117-214	47.9	290
299	Stimulation of insulin release by repaglinide and glibenclamide involves both common and distinct processes. <i>Diabetes</i> , 1998 , 47, 345-51	0.9	261

298	The voltage sensitive Lc-type Ca ²⁺ channel is functionally coupled to the exocytotic machinery. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999 , 96, 248-53	11.5	258
297	Glucose-sensing mechanisms in pancreatic beta-cells. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2005 , 360, 2211-25	5.8	246
296	The pancreatic beta-cell as a fuel sensor: an electrophysiologist's viewpoint. <i>Diabetologia</i> , 1997 , 40, 487-95	25.3	240
295	Protein kinase A-dependent and -independent stimulation of exocytosis by cAMP in mouse pancreatic B-cells. <i>Journal of Physiology</i> , 1997 , 502 (Pt 1), 105-18	3.9	228
294	Stimulus-secretion coupling in pancreatic beta cells. <i>Journal of Cellular Biochemistry</i> , 1994 , 55 Suppl, 54-65	4.7	225
293	SUR1 regulates PKA-independent cAMP-induced granule priming in mouse pancreatic B-cells. <i>Journal of General Physiology</i> , 2003 , 121, 181-97	3.4	222
292	Fast insulin secretion reflects exocytosis of docked granules in mouse pancreatic B-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 2002 , 444, 43-51	4.6	219
291	Overexpression of alpha2A-adrenergic receptors contributes to type 2 diabetes. <i>Science</i> , 2010 , 327, 217-20	35.3	213
290	Exocytosis elicited by action potentials and voltage-clamp calcium currents in individual mouse pancreatic B-cells. <i>Journal of Physiology</i> , 1993 , 472, 665-88	3.9	213
289	Fast exocytosis with few Ca(2+) channels in insulin-secreting mouse pancreatic B cells. <i>Biophysical Journal</i> , 2001 , 81, 3308-23	2.9	207
288	Co-localization of L-type Ca ²⁺ channels and insulin-containing secretory granules and its significance for the initiation of exocytosis in mouse pancreatic B-cells.. <i>EMBO Journal</i> , 1995 , 14, 50-57	13	207
287	Glucose inhibition of glucagon secretion from rat alpha-cells is mediated by GABA released from neighboring beta-cells. <i>Diabetes</i> , 2004 , 53, 1038-45	0.9	204
286	Regulation of PKD by the MAPK p38delta in insulin secretion and glucose homeostasis. <i>Cell</i> , 2009 , 136, 235-48	56.2	195
285	GLP-1 inhibits and adrenaline stimulates glucagon release by differential modulation of N- and L-type Ca ²⁺ channel-dependent exocytosis. <i>Cell Metabolism</i> , 2010 , 11, 543-553	24.6	194
284	MicroRNA-7a regulates pancreatic β cell function. <i>Journal of Clinical Investigation</i> , 2014 , 124, 2722-35	15.9	193
283	Regulation of glucagon release in mouse β -cells by KATP channels and inactivation of TTX-sensitive Na ⁺ channels. <i>Journal of Physiology</i> , 2000 , 528, 509-20	3.9	190
282	Activation of protein kinases and inhibition of protein phosphatases play a central role in the regulation of exocytosis in mouse pancreatic beta cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1994 , 91, 4343-7	11.5	184
281	Cellular regulation of islet hormone secretion by the incretin hormone glucagon-like peptide 1. <i>Pflugers Archiv European Journal of Physiology</i> , 1998 , 435, 583-94	4.6	181

280	Tight coupling between electrical activity and exocytosis in mouse glucagon-secreting alpha-cells. <i>Diabetes</i> , 2000 , 49, 1500-10	0.9	179
279	Voltage-gated and resting membrane currents recorded from B-cells in intact mouse pancreatic islets. <i>Journal of Physiology</i> , 1999 , 521 Pt 3, 717-28	3.9	176
278	PKC-dependent stimulation of exocytosis by sulfonylureas in pancreatic beta cells. <i>Science</i> , 1996 , 271, 813-5	33.3	176
277	A K ATP channel-dependent pathway within alpha cells regulates glucagon release from both rodent and human islets of Langerhans. <i>PLoS Biology</i> , 2007 , 5, e143	9.7	175
276	Reduced insulin exocytosis in human pancreatic β -cells with gene variants linked to type 2 diabetes. <i>Diabetes</i> , 2012 , 61, 1726-33	0.9	174
275	Impaired insulin secretion and glucose tolerance in beta cell-selective Ca(v)1.2 Ca ²⁺ channel null mice. <i>EMBO Journal</i> , 2003 , 22, 3844-54	13	174
274	Increased activity of L-type Ca ²⁺ channels exposed to serum from patients with type I diabetes. <i>Science</i> , 1993 , 261, 86-90	33.3	172
273	A subset of 50 secretory granules in close contact with L-type Ca ²⁺ channels accounts for first-phase insulin secretion in mouse beta-cells. <i>Diabetes</i> , 2002 , 51 Suppl 1, S74-82	0.9	171
272	K(ATP) channels and islet hormone secretion: new insights and controversies. <i>Nature Reviews Endocrinology</i> , 2013 , 9, 660-9	15.2	166
271	Rapid ATP-dependent priming of secretory granules precedes Ca ²⁺ -induced exocytosis in mouse pancreatic B-cells. <i>Journal of Physiology</i> , 1997 , 503 (Pt 2), 399-412	3.9	165
270	Delay between fusion pore opening and peptide release from large dense-core vesicles in neuroendocrine cells. <i>Neuron</i> , 2002 , 33, 287-99	13.9	165
269	Glucagon-like peptide 1 (7-36) amide stimulates exocytosis in human pancreatic beta-cells by both proximal and distal regulatory steps in stimulus-secretion coupling. <i>Diabetes</i> , 1998 , 47, 57-65	0.9	157
268	Regulation of calcium in pancreatic β and α -cells in health and disease. <i>Cell Calcium</i> , 2012 , 51, 300-8	4	155
267	Gamma-aminobutyric acid (GABA) is an autocrine excitatory transmitter in human pancreatic beta-cells. <i>Diabetes</i> , 2010 , 59, 1694-701	0.9	154
266	Reversible changes in pancreatic islet structure and function produced by elevated blood glucose. <i>Nature Communications</i> , 2014 , 5, 4639	17.4	153
265	Neurotransmitter-induced inhibition of exocytosis in insulin-secreting beta cells by activation of calcineurin. <i>Neuron</i> , 1996 , 17, 513-22	13.9	152
264	Role of KATP channels in glucose-regulated glucagon secretion and impaired counterregulation in type 2 diabetes. <i>Cell Metabolism</i> , 2013 , 18, 871-82	24.6	146
263	Isoform-specific regulation of mood behavior and pancreatic beta cell and cardiovascular function by L-type Ca ²⁺ channels. <i>Journal of Clinical Investigation</i> , 2004 , 113, 1430-9	15.9	144

262	Priming of insulin granules for exocytosis by granular Cl ⁻ uptake and acidification. <i>Journal of Cell Science</i> , 2001 , 114, 2145-2154	5.3	141
261	Simultaneous recordings of glucose dependent electrical activity and ATP-regulated K ⁽⁺⁾ -currents in isolated mouse pancreatic beta-cells. <i>FEBS Letters</i> , 1990 , 261, 187-90	3.8	140
260	An atlas and functional analysis of G-protein coupled receptors in human islets of Langerhans. <i>Pharmacology & Therapeutics</i> , 2013 , 139, 359-91	13.9	139
259	Adrenaline stimulates glucagon secretion in pancreatic A-cells by increasing the Ca ²⁺ current and the number of granules close to the L-type Ca ²⁺ channels. <i>Journal of General Physiology</i> , 1997 , 110, 217-28	3.4	139
258	Novel aspects of the molecular mechanisms controlling insulin secretion. <i>Journal of Physiology</i> , 2008 , 586, 3313-24	3.9	139
257	Modulation of dihydropyridine-sensitive Ca ²⁺ channels by glucose metabolism in mouse pancreatic beta-cells. <i>Nature</i> , 1989 , 342, 550-3	50.4	139
256	The Cell Physiology of Biphasic Insulin Secretion. <i>Physiology</i> , 2000 , 15, 72-77	9.8	138
255	ATP-sensitive K ⁺ channel-dependent regulation of glucagon release and electrical activity by glucose in wild-type and SUR1 ^{-/-} mouse alpha-cells. <i>Diabetes</i> , 2004 , 53 Suppl 3, S181-9	0.9	130
254	Inhibition of ATP-regulated K ⁺ channels precedes depolarization-induced increase in cytoplasmic free Ca ²⁺ concentration in pancreatic beta-cells. <i>Journal of Biological Chemistry</i> , 1987 , 262, 5448-54	5.4	129
253	Capacitance measurements of exocytosis in mouse pancreatic alpha-, beta- and delta-cells within intact islets of Langerhans. <i>Journal of Physiology</i> , 2004 , 556, 711-26	3.9	127
252	Inositol trisphosphate-dependent periodic activation of a Ca ⁽²⁺⁾ -activated K ⁺ conductance in glucose-stimulated pancreatic beta-cells. <i>Nature</i> , 1991 , 353, 849-52	50.4	125
251	CaV2.3 calcium channels control second-phase insulin release. <i>Journal of Clinical Investigation</i> , 2005 , 115, 146-154	15.9	125
250	Regulation of glucagon secretion by glucose: paracrine, intrinsic or both?. <i>Diabetes, Obesity and Metabolism</i> , 2011 , 13 Suppl 1, 95-105	6.7	124
249	Patch-clamp characterisation of somatostatin-secreting δ -cells in intact mouse pancreatic islets. <i>Journal of Physiology</i> , 2000 , 528, 497-507	3.9	124
248	Activation by adrenaline of a low-conductance G protein-dependent K ⁺ channel in mouse pancreatic B cells. <i>Nature</i> , 1991 , 349, 77-9	50.4	123
247	Priming of insulin granules for exocytosis by granular Cl ⁽⁻⁾ uptake and acidification. <i>Journal of Cell Science</i> , 2001 , 114, 2145-54	5.3	123
246	Activation of Ca ⁽²⁺⁾ -dependent K ⁽⁺⁾ channels contributes to rhythmic firing of action potentials in mouse pancreatic beta cells. <i>Journal of General Physiology</i> , 1999 , 114, 759-70	3.4	122
245	Glucagon-like peptide I increases cytoplasmic calcium in insulin-secreting beta TC3-cells by enhancement of intracellular calcium mobilization. <i>Diabetes</i> , 1995 , 44, 767-74	0.9	121

244	Inhibition of ATP-regulated K ⁺ channels precedes depolarization-induced increase in cytoplasmic free Ca ²⁺ concentration in pancreatic beta-cells. <i>Journal of Biological Chemistry</i> , 1987 , 262, 5448-5454	5.4	120
243	ATP-sensitive K ⁺ channels: a link between B-cell metabolism and insulin secretion. <i>Biochemical Society Transactions</i> , 1990 , 18, 109-11	5.1	119
242	Chronic palmitate exposure inhibits insulin secretion by dissociation of Ca(2+) channels from secretory granules. <i>Cell Metabolism</i> , 2009 , 10, 455-65	24.6	116
241	Release of small transmitters through kiss-and-run fusion pores in rat pancreatic beta cells. <i>Cell Metabolism</i> , 2006 , 4, 283-90	24.6	114
240	Dual effects of glucose on the cytosolic Ca ²⁺ activity of mouse pancreatic beta-cells. <i>FEBS Letters</i> , 1984 , 170, 196-200	3.8	111
239	Selective nucleotide-release from dense-core granules in insulin-secreting cells. <i>Journal of Cell Science</i> , 2005 , 118, 4271-82	5.3	109
238	Regulated exocytosis of GABA-containing synaptic-like microvesicles in pancreatic beta-cells. <i>Journal of General Physiology</i> , 2004 , 123, 191-204	3.4	108
237	GLP-1 stimulates insulin secretion by PKC-dependent TRPM4 and TRPM5 activation. <i>Journal of Clinical Investigation</i> , 2015 , 125, 4714-28	15.9	106
236	Co-localization of L-type Ca ²⁺ channels and insulin-containing secretory granules and its significance for the initiation of exocytosis in mouse pancreatic B-cells. <i>EMBO Journal</i> , 1995 , 14, 50-7	13	103
235	Diabetes causes marked inhibition of mitochondrial metabolism in pancreatic β -cells. <i>Nature Communications</i> , 2019 , 10, 2474	17.4	102
234	Suppression of insulin release by galanin and somatostatin is mediated by a G-protein. An effect involving repolarization and reduction in cytoplasmic free Ca ²⁺ concentration. <i>Journal of Biological Chemistry</i> , 1989 , 264, 973-80	5.4	101
233	Failure of transplanted bone marrow cells to adopt a pancreatic beta-cell fate. <i>Diabetes</i> , 2006 , 55, 290-6	0.9	100
232	A dominant mutation in Snap25 causes impaired vesicle trafficking, sensorimotor gating, and ataxia in the blind-drunk mouse. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 2431-6	11.5	100
231	Voltage-activated currents in guinea pig pancreatic alpha 2 cells. Evidence for Ca ²⁺ -dependent action potentials. <i>Journal of General Physiology</i> , 1988 , 91, 223-42	3.4	99
230	Hormone-sensitive lipase, the rate-limiting enzyme in triglyceride hydrolysis, is expressed and active in beta-cells. <i>Diabetes</i> , 1999 , 48, 228-32	0.9	96
229	Membrane potential-dependent inactivation of voltage-gated ion channels in alpha-cells inhibits glucagon secretion from human islets. <i>Diabetes</i> , 2010 , 59, 2198-208	0.9	95
228	SSTR2 is the functionally dominant somatostatin receptor in human pancreatic β - and δ -cells. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2012 , 303, E1107-16	6	95
227	Glutamate acts as a key signal linking glucose metabolism to incretin/cAMP action to amplify insulin secretion. <i>Cell Reports</i> , 2014 , 9, 661-73	10.6	94

226	Glucagon stimulates exocytosis in mouse and rat pancreatic alpha-cells by binding to glucagon receptors. <i>Molecular Endocrinology</i> , 2005 , 19, 198-212		94
225	Suppression of Insulin Release by Galanin and Somatostatin Is Mediated by a G-protein. <i>Journal of Biological Chemistry</i> , 1989 , 264, 973-980	5.4	94
224	Quantification of mRNA in single cells and modelling of RT-qPCR induced noise. <i>BMC Molecular Biology</i> , 2008 , 9, 63	4.5	93
223	Glucagon-like peptide I and glucose-dependent insulintropic polypeptide stimulate Ca ²⁺ -induced secretion in rat alpha-cells by a protein kinase A-mediated mechanism. <i>Diabetes</i> , 1997 , 46, 792-800	0.9	91
222	Somatostatin inhibits exocytosis in rat pancreatic alpha-cells by G(i2)-dependent activation of calcineurin and depriving of secretory granules. <i>Journal of Physiology</i> , 2001 , 535, 519-32	3.9	90
221	Single Ca channel currents in mouse pancreatic B-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1988 , 412, 597-603	4.6	90
220	Steviol glycosides enhance pancreatic beta-cell function and taste sensation by potentiation of TRPM5 channel activity. <i>Nature Communications</i> , 2017 , 8, 14733	17.4	88
219	Phosphatidylinositol 4-kinase serves as a metabolic sensor and regulates priming of secretory granules in pancreatic beta cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 5187-92	11.5	88
218	Failure of glucose to elicit a normal secretory response in fetal pancreatic beta cells results from glucose insensitivity of the ATP-regulated K ⁺ channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1989 , 86, 4505-9	11.5	87
217	R-type Ca(2+)-channel-evoked CICR regulates glucose-induced somatostatin secretion. <i>Nature Cell Biology</i> , 2007 , 9, 453-60	23.4	86
216	Corelease and differential exit via the fusion pore of GABA, serotonin, and ATP from LDCV in rat pancreatic beta cells. <i>Journal of General Physiology</i> , 2007 , 129, 221-31	3.4	86
215	Expression of an activating mutation in the gene encoding the KATP channel subunit Kir6.2 in mouse pancreatic beta cells recapitulates neonatal diabetes. <i>Journal of Clinical Investigation</i> , 2009 , 119, 80-90	15.9	86
214	β-cells and δ-cells are electrically coupled and regulate β-cell activity via somatostatin. <i>Journal of Physiology</i> , 2018 , 596, 197-215	3.9	85
213	Synaptotagmin-7 is a principal Ca ²⁺ sensor for Ca ²⁺ -induced glucagon exocytosis in pancreas. <i>Journal of Physiology</i> , 2009 , 587, 1169-78	3.9	84
212	The somatostatin-secreting pancreatic β-cell in health and disease. <i>Nature Reviews Endocrinology</i> , 2018 , 14, 404-414	15.2	84
211	Delayed rectifying and calcium-activated K ⁺ channels and their significance for action potential repolarization in mouse pancreatic beta-cells. <i>Journal of General Physiology</i> , 1990 , 95, 1041-59	3.4	82
210	Uromodulin mutations causing familial juvenile hyperuricaemic nephropathy lead to protein maturation defects and retention in the endoplasmic reticulum. <i>Human Molecular Genetics</i> , 2009 , 18, 2963-74	5.6	81
209	CaM kinase II-dependent mobilization of secretory granules underlies acetylcholine-induced stimulation of exocytosis in mouse pancreatic B-cells. <i>Journal of Physiology</i> , 1999 , 518 (Pt 3), 745-59	3.9	79

208	Block of ATP-regulated and Ca ²⁺ (+)-activated K ⁺ channels in mouse pancreatic beta-cells by external tetraethylammonium and quinine. <i>Journal of Physiology</i> , 1990 , 423, 327-42	3.9	79
207	Type 2 diabetes mellitus: not quite exciting enough?. <i>Human Molecular Genetics</i> , 2004 , 13 Spec No 1, R21-31	5.6	78
206	Glucagon-like peptide-1: regulation of insulin secretion and therapeutic potential. <i>Basic and Clinical Pharmacology and Toxicology</i> , 2004 , 95, 252-62	3.1	78
205	Cooling inhibits exocytosis in single mouse pancreatic B-cells by suppression of granule mobilization. <i>Journal of Physiology</i> , 1996 , 494 (Pt 1), 41-52	3.9	78
204	Muscle dysfunction caused by a KATP channel mutation in neonatal diabetes is neuronal in origin. <i>Science</i> , 2010 , 329, 458-61	33.3	77
203	K(ATP)-channels and glucose-regulated glucagon secretion. <i>Trends in Endocrinology and Metabolism</i> , 2008 , 19, 277-84	8.8	77
202	Cellular function in multicellular system for hormone-secretion: electrophysiological aspect of studies on alpha-, beta- and delta-cells of the pancreatic islet. <i>Neuroscience Research</i> , 2002 , 42, 79-90	2.9	76
201	Electrophysiology of pancreatic β -cells in intact mouse islets of Langerhans. <i>Progress in Biophysics and Molecular Biology</i> , 2011 , 107, 224-35	4.7	75
200	Multisite regulation of insulin secretion by cAMP-increasing agonists: evidence that glucagon-like peptide 1 and glucagon act via distinct receptors. <i>Pflugers Archiv European Journal of Physiology</i> , 1997 , 434, 515-24	4.6	75
199	Long-term exposure to glucose and lipids inhibits glucose-induced insulin secretion downstream of granule fusion with plasma membrane. <i>Diabetes</i> , 2007 , 56, 1888-97	0.9	75
198	Glucose-dependent regulation of rhythmic action potential firing in pancreatic beta-cells by K(ATP)-channel modulation. <i>Journal of Physiology</i> , 2002 , 545, 501-7	3.9	75
197	Stimulation of the KATP channel by ADP and diazoxide requires nucleotide hydrolysis in mouse pancreatic beta-cells. <i>Journal of Physiology</i> , 1993 , 463, 349-65	3.9	75
196	Insulin inhibits glucagon release by SGLT2-induced stimulation of somatostatin secretion. <i>Nature Communications</i> , 2019 , 10, 139	17.4	75
195	PVHL is a regulator of glucose metabolism and insulin secretion in pancreatic beta cells. <i>Genes and Development</i> , 2008 , 22, 3135-46	12.6	74
194	The effects of TAK-875, a selective G protein-coupled receptor 40/free fatty acid 1 agonist, on insulin and glucagon secretion in isolated rat and human islets. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2012 , 340, 483-9	4.7	73
193	Endocytosis of secretory granules in mouse pancreatic beta-cells evoked by transient elevation of cytosolic calcium. <i>Journal of Physiology</i> , 1996 , 493 (Pt 3), 755-67	3.9	73
192	The insulinogenic effect of whey protein is partially mediated by a direct effect of amino acids and GIP on β -cells. <i>Nutrition and Metabolism</i> , 2012 , 9, 48	4.6	72
191	Palmitate increases L-type Ca ²⁺ currents and the size of the readily releasable granule pool in mouse pancreatic beta-cells. <i>Journal of Physiology</i> , 2004 , 557, 935-48	3.9	71

190	Somatostatin release, electrical activity, membrane currents and exocytosis in human pancreatic delta cells. <i>Diabetologia</i> , 2009 , 52, 1566-78	10.3	70
189	Ca(2+)-induced Ca ²⁺ release in insulin-secreting cells. <i>FEBS Letters</i> , 1992 , 296, 287-91	3.8	69
188	CaV2.3 calcium channels control second-phase insulin release. <i>Journal of Clinical Investigation</i> , 2005 , 115, 146-54	15.9	69
187	Glucagon secretion from pancreatic β cells. <i>Uppsala Journal of Medical Sciences</i> , 2016 , 121, 113-9	2.8	69
186	Autocrine regulation of insulin secretion. <i>Diabetes, Obesity and Metabolism</i> , 2012 , 14 Suppl 3, 143-51	6.7	68
185	Hyperglycaemia induces metabolic dysfunction and glycogen accumulation in pancreatic β cells. <i>Nature Communications</i> , 2016 , 7, 13496	17.4	67
184	The stimulatory action of tolbutamide on Ca ²⁺ -dependent exocytosis in pancreatic beta cells is mediated by a 65-kDa mdr-like P-glycoprotein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999 , 96, 5539-44	11.5	65
183	ATP-regulated potassium channels and voltage-gated calcium channels in pancreatic alpha and beta cells: similar functions but reciprocal effects on secretion. <i>Diabetologia</i> , 2014 , 57, 1749-61	10.3	62
182	Palmitate stimulation of glucagon secretion in mouse pancreatic alpha-cells results from activation of L-type calcium channels and elevation of cytoplasmic calcium. <i>Diabetes</i> , 2004 , 53, 2836-43	0.9	61
181	Na ⁺ current properties in islet β and α cells reflect cell-specific Scn3a and Scn9a expression. <i>Journal of Physiology</i> , 2014 , 592, 4677-96	3.9	60
180	Calcium increases endocytotic vesicle size and accelerates membrane fission in insulin-secreting INS-1 cells. <i>Journal of Cell Science</i> , 2005 , 118, 5911-20	5.3	60
179	Regulated exocytosis and kiss-and-run of synaptic-like microvesicles in INS-1 and primary rat beta-cells. <i>Diabetes</i> , 2005 , 54, 736-43	0.9	60
178	Characterisation of sulphonylurea and ATP-regulated K ⁺ channels in rat pancreatic A-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1999 , 438, 428-436	4.6	60
177	Extracellular ATP increases cytoplasmic free Ca ²⁺ concentration in clonal insulin-producing RINm5F cells. A mechanism involving direct interaction with both release and refilling of the inositol 1,4,5-trisphosphate-sensitive Ca ²⁺ pool. <i>Biochemical Journal</i> , 1990 , 265, 203-11	3.8	60
176	CAPS1 and CAPS2 regulate stability and recruitment of insulin granules in mouse pancreatic beta cells. <i>Cell Metabolism</i> , 2008 , 7, 57-67	24.6	59
175	The first gamma-carboxyglutamic acid-containing contryphan. A selective L-type calcium ion channel blocker isolated from the venom of <i>Conus marmoreus</i> . <i>Journal of Biological Chemistry</i> , 2004 , 279, 32453-63	5.4	59
174	GABAB receptor activation inhibits exocytosis in rat pancreatic beta-cells by G-protein-dependent activation of calcineurin. <i>Journal of Physiology</i> , 2004 , 559, 397-409	3.9	59
173	Defective regulation of the cytosolic Ca ²⁺ activity in parathyroid cells from patients with hyperparathyroidism. <i>Bioscience Reports</i> , 1984 , 4, 909-15	4.1	59

172	Cell coupling in mouse pancreatic beta-cells measured in intact islets of Langerhans. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2008 , 366, 3503-23	3	58
171	Ca(2+)- and GTP-dependent exocytosis in mouse pancreatic beta-cells involves both common and distinct steps. <i>Journal of Physiology</i> , 1996 , 496 (Pt 1), 255-64	3.9	58
170	Effects of external tetraethylammonium ions and quinine on delayed rectifying K ⁺ channels in mouse pancreatic beta-cells. <i>Journal of Physiology</i> , 1990 , 423, 311-25	3.9	58
169	Progression of diet-induced diabetes in C57BL6J mice involves functional dissociation of Ca ²⁺ channels from secretory vesicles. <i>Diabetes</i> , 2010 , 59, 1192-201	0.9	57
168	PYY-Dependent Restoration of Impaired Insulin and Glucagon Secretion in Type 2 Diabetes following Roux-En-Y Gastric Bypass Surgery. <i>Cell Reports</i> , 2016 , 15, 944-950	10.6	56
167	Oscillations, intercellular coupling, and insulin secretion in pancreatic beta cells. <i>PLoS Biology</i> , 2006 , 4, e49	9.7	54
166	Characterisation of sulphonylurea and ATP-regulated K ⁺ channels in rat pancreatic A-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1999 , 438, 428-36	4.6	54
165	Type 2 diabetes susceptibility gene TCF7L2 and its role in beta-cell function. <i>Diabetes</i> , 2009 , 58, 800-2	0.9	53
164	Inhibition of glucose-stimulated insulin release by alpha 2-adrenoceptor activation is paralleled by both a repolarization and a reduction in cytoplasmic free Ca ²⁺ concentration. <i>Journal of Biological Chemistry</i> , 1988 , 263, 1855-60	5.4	53
163	CLC-5 and KIF3B interact to facilitate CLC-5 plasma membrane expression, endocytosis, and microtubular transport: relevance to pathophysiology of Dent's disease. <i>American Journal of Physiology - Renal Physiology</i> , 2010 , 298, F365-80	4.3	52
162	Co-localisation of the Kir6.2/SUR1 channel complex with glucagon-like peptide-1 and glucose-dependent insulinotropic polypeptide expression in human ileal cells and implications for glycaemic control in new onset type 1 diabetes. <i>European Journal of Endocrinology</i> , 2007 , 156, 663-71	6.5	52
161	RFX6 regulates insulin secretion by modulating Ca ²⁺ homeostasis in human β cells. <i>Cell Reports</i> , 2014 , 9, 2206-18	10.6	51
160	Galanin and the endocrine pancreas. <i>FEBS Letters</i> , 1988 , 229, 233-7	3.8	51
159	Cyclic AMP potentiates glucose-induced insulin release from mouse pancreatic islets without increasing cytosolic free Ca ²⁺ . <i>Acta Physiologica Scandinavica</i> , 1985 , 125, 639-47		50
158	Defective secretion of islet hormones in chromogranin-B deficient mice. <i>PLoS ONE</i> , 2010 , 5, e8936	3.7	50
157	Stimulation of cloned human glucagon-like peptide 1 receptor expressed in HEK 293 cells induces cAMP-dependent activation of calcium-induced calcium release. <i>FEBS Letters</i> , 1995 , 373, 182-6	3.8	49
156	Inhibition of glucose-stimulated insulin release by alpha 2-adrenoceptor activation is paralleled by both a repolarization and a reduction in cytoplasmic free Ca ²⁺ concentration.. <i>Journal of Biological Chemistry</i> , 1988 , 263, 1855-1860	5.4	49
155	Cell glucokinase suppresses glucose-regulated glucagon secretion. <i>Nature Communications</i> , 2018 , 9, 546	17.4	47

154	CPT1a-Dependent Long-Chain Fatty Acid Oxidation Contributes to Maintaining Glucagon Secretion from Pancreatic Islets. <i>Cell Reports</i> , 2018 , 23, 3300-3311	10.6	47
153	Exocytotic properties of human pancreatic beta-cells. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1152, 187-93	6.5	47
152	Reduction of the cytosolic calcium activity in clonal insulin-releasing cells exposed to glucose. <i>Bioscience Reports</i> , 1983 , 3, 939-46	4.1	47
151	Synaptotagmin-7 phosphorylation mediates GLP-1-dependent potentiation of insulin secretion from β -cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 9996-10001	11.5	46
150	Adrenaline Stimulates Glucagon Secretion by Tpc2-Dependent Ca Mobilization From Acidic Stores in Pancreatic β Cells. <i>Diabetes</i> , 2018 , 67, 1128-1139	0.9	46
149	Kiss-and-run exocytosis and fusion pores of secretory vesicles in human beta-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 2009 , 457, 1343-50	4.6	46
148	Molecular defects in insulin secretion in type-2 diabetes. <i>Reviews in Endocrine and Metabolic Disorders</i> , 2004 , 5, 135-42	10.5	46
147	Separate processes mediate nucleotide-induced inhibition and stimulation of the ATP-regulated K(+)-channels in mouse pancreatic beta-cells. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 1991 , 243, 139-44	4.4	46
146	Loss of ZnT8 function protects against diabetes by enhanced insulin secretion. <i>Nature Genetics</i> , 2019 , 51, 1596-1606	36.3	45
145	Mitochondrial matrix pH controls oxidative phosphorylation and metabolism-secretion coupling in INS-1E clonal beta cells. <i>FASEB Journal</i> , 2010 , 24, 4613-26	0.9	45
144	Ca ²⁺ channel clustering with insulin-containing granules is disturbed in type 2 diabetes. <i>Journal of Clinical Investigation</i> , 2017 , 127, 2353-2364	15.9	45
143	AP2 Mutations Impair Calcium-Sensing Receptor Trafficking and Signaling, and Show an Endosomal Pathway to Spatially Direct G-Protein Selectivity. <i>Cell Reports</i> , 2018 , 22, 1054-1066	10.6	44
142	Voltage-activated Na ⁺ currents and their suppression by phorbol ester in clonal insulin-producing RINm5F cells. <i>American Journal of Physiology - Cell Physiology</i> , 1986 , 251, C912-9	5.4	44
141	Nicotinic Acid Adenine Dinucleotide Phosphate (NAADP) and Endolysosomal Two-pore Channels Modulate Membrane Excitability and Stimulus-Secretion Coupling in Mouse Pancreatic β Cells. <i>Journal of Biological Chemistry</i> , 2015 , 290, 21376-92	5.4	43
140	Significance of Na/Ca exchange for Ca ²⁺ buffering and electrical activity in mouse pancreatic beta-cells. <i>Biophysical Journal</i> , 1999 , 76, 2018-28	2.9	42
139	The ins and outs of secretion from pancreatic beta-cells: control of single-vesicle exo- and endocytosis. <i>Physiology</i> , 2007 , 22, 113-21	9.8	41
138	Depolarization-independent net uptake of calcium into clonal insulin-releasing cells exposed to glucose. <i>Bioscience Reports</i> , 1983 , 3, 927-37	4.1	41
137	Increased Expression of the Diabetes Gene SOX4 Reduces Insulin Secretion by Impaired Fusion Pore Expansion. <i>Diabetes</i> , 2016 , 65, 1952-61	0.9	39

136	Sulfonylurea-mediated stimulation of insulin exocytosis via an ATP-sensitive K ⁺ channel-independent action. <i>Diabetes</i> , 2002 , 51 Suppl 1, S33-6	0.9	39
135	Does galanin inhibit insulin secretion by opening of the ATP-regulated K ⁺ channel in the beta-cell?. <i>Peptides</i> , 1989 , 10, 453-7	3.8	39
134	Two types of Ca ²⁺ currents with different sensitivities to organic Ca ²⁺ channel antagonists in guinea pig pancreatic alpha 2 cells. <i>Journal of General Physiology</i> , 1988 , 91, 243-54	3.4	39
133	GLP-1 suppresses glucagon secretion in human pancreatic alpha-cells by inhibition of P/Q-type Ca channels. <i>Physiological Reports</i> , 2018 , 6, e13852	2.6	39
132	Suppression of sulfonylurea- and glucose-induced insulin secretion in vitro and in vivo in mice lacking the chloride transport protein ClC-3. <i>Cell Metabolism</i> , 2009 , 10, 309-15	24.6	38
131	Cytoplasmic calcium transients due to single action potentials and voltage-clamp depolarizations in mouse pancreatic B-cells.. <i>EMBO Journal</i> , 1992 , 11, 2877-2884	13	38
130	Regulation of glucagon release from pancreatic A-cells. <i>Biochemical Pharmacology</i> , 1991 , 41, 1783-90	6	38
129	G protein-dependent inhibition of L-type Ca ²⁺ currents by acetylcholine in mouse pancreatic B-cells. <i>Journal of Physiology</i> , 1997 , 499 (Pt 1), 65-76	3.9	37
128	Large dense-core vesicle exocytosis in pancreatic beta-cells monitored by capacitance measurements. <i>Methods</i> , 2004 , 33, 302-11	4.6	36
127	Type 2 diabetes risk alleles in PAM impact insulin release from human pancreatic β -cells. <i>Nature Genetics</i> , 2018 , 50, 1122-1131	36.3	35
126	Key Matrix Proteins Within the Pancreatic Islet Basement Membrane Are Differentially Digested During Human Islet Isolation. <i>American Journal of Transplantation</i> , 2017 , 17, 451-461	8.7	35
125	Fumarate Hydratase Deletion in Pancreatic β Cells Leads to Progressive Diabetes. <i>Cell Reports</i> , 2017 , 20, 3135-3148	10.6	34
124	Impaired insulin exocytosis in neural cell adhesion molecule-/- mice due to defective reorganization of the submembrane F-actin network. <i>Endocrinology</i> , 2009 , 150, 3067-75	4.8	34
123	Measurements of cytoplasmic free Ca ²⁺ concentration in human pancreatic islets and insulinoma cells. <i>FEBS Letters</i> , 1991 , 291, 310-4	3.8	34
122	Functional identification of islet cell types by electrophysiological fingerprinting. <i>Journal of the Royal Society Interface</i> , 2017 , 14,	4.1	33
121	Calcium and pancreatic beta-cell function. XI. Modification of ⁴⁵ Ca fluxes by Na ⁺ removal. <i>Biochemical Medicine</i> , 1980 , 24, 143-52		33
120	Dysregulation of Glucagon Secretion by Hyperglycemia-Induced Sodium-Dependent Reduction of ATP Production. <i>Cell Metabolism</i> , 2019 , 29, 430-442.e4	24.6	33
119	PYY plays a key role in the resolution of diabetes following bariatric surgery in humans. <i>EBioMedicine</i> , 2019 , 40, 67-76	8.8	33

118	Multivesicular exocytosis in rat pancreatic beta cells. <i>Diabetologia</i> , 2012 , 55, 1001-12	10.3	32
117	Antibody inhibition of synaptosomal protein of 25 kDa (SNAP-25) and syntaxin 1 reduces rapid exocytosis in insulin-secreting cells. <i>Journal of Molecular Endocrinology</i> , 2006 , 36, 503-15	4.5	32
116	A method for the generation of human stem cell-derived alpha cells. <i>Nature Communications</i> , 2020 , 11, 2241	17.4	30
115	Quantal ATP release in rat beta-cells by exocytosis of insulin-containing LDCVs. <i>Pflugers Archiv European Journal of Physiology</i> , 2009 , 458, 389-401	4.6	29
114	Hormone-sensitive lipase deficiency in mouse islets abolishes neutral cholesterol ester hydrolase activity but leaves lipolysis, acylglycerides, fat oxidation, and insulin secretion intact. <i>Endocrinology</i> , 2004 , 145, 3746-53	4.8	29
113	Direct measurements of increased free cytoplasmic Ca ²⁺ in mouse pancreatic beta-cells following stimulation by hypoglycemic sulfonylureas. <i>FEBS Letters</i> , 1985 , 190, 21-4	3.8	29
112	Tolbutamide stimulates exocytosis of glucagon by inhibition of a mitochondrial-like ATP-sensitive K ⁺ (KATP) conductance in rat pancreatic A-cells. <i>Journal of Physiology</i> , 2000 , 527 Pt 1, 109-20	3.9	28
111	Protein kinase C activity affects glucose-induced oscillations in cytoplasmic free Ca ²⁺ in the pancreatic B-cell. <i>FEBS Letters</i> , 1992 , 303, 85-90	3.8	28
110	Expression of voltage-gated K ⁺ channels in insulin-producing cells. Analysis by polymerase chain reaction. <i>FEBS Letters</i> , 1990 , 263, 121-6	3.8	28
109	Glucagon-like peptide 1 (7-36) amide stimulates exocytosis in human pancreatic beta-cells by both proximal and distal regulatory steps in stimulus-secretion coupling. <i>Diabetes</i> , 1998 , 47, 57-65	0.9	28
108	Glucose-induced increase in cytoplasmic pH in pancreatic beta-cells is mediated by Na ⁺ /H ⁺ exchange, an effect not dependent on protein kinase C.. <i>Journal of Biological Chemistry</i> , 1991 , 266, 23537-23541	5.4	28
107	βCell Dysfunction in Type 2 Diabetes: Drained of Energy?. <i>Cell Metabolism</i> , 2019 , 29, 1-2	24.6	28
106	"Take Me To Your Leader": An Electrophysiological Appraisal of the Role of Hub Cells in Pancreatic Islets. <i>Diabetes</i> , 2020 , 69, 830-836	0.9	27
105	Gi2 proteins couple somatostatin receptors to low-conductance K ⁺ channels in rat pancreatic alpha-cells. <i>Pflugers Archiv European Journal of Physiology</i> , 2001 , 442, 19-26	4.6	27
104	New insights into the regulation of glucagon secretion by glucagon-like peptide-1. <i>Hormone and Metabolic Research</i> , 2004 , 36, 822-9	3.1	26
103	GPRC5B a putative glutamate-receptor candidate is negative modulator of insulin secretion. <i>Biochemical and Biophysical Research Communications</i> , 2013 , 441, 643-648	3.4	25
102	Direct evidence for opposite effects of D-glucose and D-glyceraldehyde on cytoplasmic pH of mouse pancreatic beta-cells. <i>Bioscience Reports</i> , 1986 , 6, 355-61	4.1	25
101	Glucose-induced increase in cytoplasmic pH in pancreatic beta-cells is mediated by Na ⁺ /H ⁺ exchange, an effect not dependent on protein kinase C. <i>Journal of Biological Chemistry</i> , 1991 , 266, 23537-41	5.4	25

100	Alpha 2-adrenoreceptor stimulation does not inhibit L-type calcium channels in mouse pancreatic beta-cells. <i>Bioscience Reports</i> , 1991 , 11, 147-57	4.1	24
99	Manganese accumulation in pancreatic beta-cells and its stimulation by glucose. <i>Biochemical Journal</i> , 1982 , 202, 435-44		24
98	Enhanced stimulus-secretion coupling in polyamine-depleted rat insulinoma cells. An effect involving increased cytoplasmic Ca ²⁺ , inositol phosphate generation, and phorbol ester sensitivity. <i>Journal of Clinical Investigation</i> , 1993 , 92, 1910-7	15.9	24
97	Cytoplasmic calcium transients due to single action potentials and voltage-clamp depolarizations in mouse pancreatic B-cells. <i>EMBO Journal</i> , 1992 , 11, 2877-84	13	24
96	Long-term exposure of mouse pancreatic islets to oleate or palmitate results in reduced glucose-induced somatostatin and oversecretion of glucagon. <i>Diabetologia</i> , 2008 , 51, 1689-93	10.3	23
95	Pathophysiological, genetic and gene expression features of a novel rodent model of the cardio-metabolic syndrome. <i>PLoS ONE</i> , 2008 , 3, e2962	3.7	22
94	Compound exocytosis in voltage-clamped mouse pancreatic β -cells revealed by carbon fibre amperometry. <i>Pflugers Archiv European Journal of Physiology</i> , 2000 , 439, 634-645	4.6	22
93	Desensitization of glucagon-like peptide 1 receptors in insulin-secreting beta TC3 cells: role of PKA-independent mechanisms. <i>British Journal of Pharmacology</i> , 1996 , 118, 769-75	8.6	22
92	Glucagon-like peptide I increases cytoplasmic calcium in insulin-secreting beta TC3-cells by enhancement of intracellular calcium mobilization. <i>Diabetes</i> , 1995 , 44, 767-774	0.9	22
91	Glucagon-like peptide I and glucose-dependent insulinotropic polypeptide stimulate Ca ²⁺ -induced secretion in rat alpha-cells by a protein kinase A-mediated mechanism. <i>Diabetes</i> , 1997 , 46, 792-800	0.9	22
90	Mutant Mice With Calcium-Sensing Receptor Activation Have Hyperglycemia That Is Rectified by Calcilytic Therapy. <i>Endocrinology</i> , 2017 , 158, 2486-2502	4.8	21
89	SEDLIN forms homodimers: characterisation of SEDLIN mutations and their interactions with transcription factors MBP1, PITX1 and SF1. <i>PLoS ONE</i> , 2010 , 5, e10646	3.7	21
88	Compound exocytosis in voltage-clamped mouse pancreatic beta-cells revealed by carbon fibre amperometry. <i>Pflugers Archiv European Journal of Physiology</i> , 2000 , 439, 634-45	4.6	21
87	Gs/Gq signaling switch in β cells defines incretin effectiveness in diabetes. <i>Journal of Clinical Investigation</i> , 2020 , 130, 6639-6655	15.9	21
86	Reduced somatostatin signalling leads to hypersecretion of glucagon in mice fed a high-fat diet. <i>Molecular Metabolism</i> , 2020 , 40, 101021	8.8	21
85	TCF7L2 and diabetes: a tale of two tissues, and of two species. <i>Cell Metabolism</i> , 2013 , 17, 157-9	24.6	20
84	Anti-diabetic action of all-trans retinoic acid and the orphan G protein coupled receptor GPRC5C in pancreatic β -cells. <i>Endocrine Journal</i> , 2017 , 64, 325-338	2.9	20
83	Glucose stimulates the entry of Ca ²⁺ into the insulin-producing beta cells but not into the glucagon-producing alpha 2 cells. <i>Acta Physiologica Scandinavica</i> , 1987 , 131, 230-4		20

82	The two pore channel TPC2 is dispensable in pancreatic β -cells for normal Ca^{2+} dynamics and insulin secretion. <i>Cell Calcium</i> , 2016 , 59, 32-40	4	20
81	Electrophysiological properties of human beta-cell lines EndoC- β H1 and - β H2 conform with human beta-cells. <i>Scientific Reports</i> , 2018 , 8, 16994	4.9	20
80	A role of PLC/PKC-dependent pathway in GLP-1-stimulated insulin secretion. <i>Journal of Molecular Medicine</i> , 2017 , 95, 361-368	5.5	18
79	NALCN: a regulated leak channel. <i>EMBO Reports</i> , 2009 , 10, 963-4	6.5	18
78	Demonstration of A-currents in pancreatic islet cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1989 , 413, 441-3	4.6	18
77	The interaction between manganese and calcium fluxes in pancreatic beta-cells. <i>Biochemical Journal</i> , 1983 , 210, 307-14		18
76	Enhancement of glucagon secretion in mouse and human pancreatic alpha cells by protein kinase C (PKC) involves intracellular trafficking of PKCalpha and PKCdelta. <i>Diabetologia</i> , 2010 , 53, 717-29	10.3	17
75	Demonstration of a novel apamin-insensitive calcium-activated K^+ channel in mouse pancreatic B cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1993 , 422, 443-8	4.6	17
74	Calcium currents in insulin-secreting beta-cells. <i>Annals of the New York Academy of Sciences</i> , 1989 , 560, 403-9	6.5	17
73	Single calcium channel activity in mouse pancreatic beta-cells. <i>Annals of the New York Academy of Sciences</i> , 1989 , 560, 410-2	6.5	17
72	Angular Approach Scanning Ion Conductance Microscopy. <i>Biophysical Journal</i> , 2016 , 110, 2252-65	2.9	17
71	Insulinotropic action of AICA riboside. II. Secretory, metabolic and cationic aspects. <i>Diabetes Research</i> , 1994 , 25, 25-37		16
70	Somatostatin secretion by Na-dependent Ca^{2+} -induced Ca^{2+} release in pancreatic delta-cells. <i>Nature Metabolism</i> , 2020 , 2, 32-40	14.6	15
69	Exocytosis from pancreatic β -cells: mathematical modelling of the exit of low-molecular-weight granule content. <i>Interface Focus</i> , 2011 , 1, 143-52	3.9	15
68	Insulin secretion: a high-affinity Ca^{2+} sensor after all?. <i>Journal of General Physiology</i> , 2004 , 124, 623-5	3.4	15
67	Inhibition of L-type calcium channels by internal GTP [γS] in mouse pancreatic beta cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1992 , 420, 72-7	4.6	15
66	A Central Small Amino Acid in the VAMP2 Transmembrane Domain Regulates the Fusion Pore in Exocytosis. <i>Scientific Reports</i> , 2017 , 7, 2835	4.9	14
65	Imidazoline NNC77-0074 stimulates insulin secretion and inhibits glucagon release by control of Ca^{2+} -dependent exocytosis in pancreatic alpha- and beta-cells. <i>European Journal of Pharmacology</i> , 2003 , 466, 213-21	5.3	14

64	Review: Insulin secretion: function and therapy of pancreatic beta-cells in diabetes. <i>British Journal of Diabetes and Vascular Disease</i> , 2005 , 5, 187-191		14
63	Inhibition of ATP-regulated K(+) -channels by a photoactivatable ATP-analogue in mouse pancreatic beta-cells. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 1991 , 1092, 347-9	4.9	14
62	Expression of K channels in <i>Xenopus laevis</i> oocytes injected with poly(A+) mRNA from the insulin-secreting beta-cell line, HIT T15. <i>FEBS Letters</i> , 1988 , 239, 185-9	3.8	14
61	High-content screening identifies a role for Na(+) channels in insulin production. <i>Royal Society Open Science</i> , 2015 , 2, 150306	3.3	13
60	Ion channels, electrical activity and insulin secretion. <i>Diabetes & Metabolism</i> , 1994 , 20, 138-45		13
59	The insulin receptor talks to glucagon?. <i>Cell Metabolism</i> , 2009 , 9, 303-5	24.6	12
58	Glucose stimulates somatostatin secretion in pancreatic β cells by cAMP-dependent intracellular Ca release. <i>Journal of General Physiology</i> , 2019 , 151, 1094-1115	3.4	11
57	Cell-cell communication between adipocytes and pancreatic beta-cells in acoustically levitated droplets. <i>Integrative Biology (United Kingdom)</i> , 2009 , 1, 595-601	3.7	11
56	The glucagon-producing alpha cell: an electrophysiologically exceptional cell. <i>Diabetologia</i> , 2010 , 53, 1827-30	10.3	11
55	Monitoring real-time hormone release kinetics via high-content 3-D imaging of compensatory endocytosis. <i>Lab on A Chip</i> , 2018 , 18, 2838-2848	7.2	10
54	Fusion pore in exocytosis: More than an exit gate? A β -cell perspective. <i>Cell Calcium</i> , 2017 , 68, 45-61	4	10
53	Glucose-responsive beta cells in islets isolated from a patient with long-standing type 1 diabetes mellitus. <i>Diabetologia</i> , 2011 , 54, 200-2	10.3	10
52	Neuropeptides in the regulation of islet hormone secretion--localization, effects and mode of action. <i>Advances in Experimental Medicine and Biology</i> , 1991 , 291, 129-42	3.6	10
51	Per-arnt-sim (PAS) domain kinase (PASK) as a regulator of glucagon secretion. <i>Diabetologia</i> , 2011 , 54, 719-21	10.3	9
50	Perchlorate stimulates insulin secretion by shifting the gating of L-type Ca ²⁺ currents in mouse pancreatic B-cells towards negative potentials. <i>Pflugers Archiv European Journal of Physiology</i> , 2001 , 441, 587-95	4.6	9
49	The riddle of formycin A insulinotropic action. <i>Biochemical and Molecular Medicine</i> , 1996 , 57, 47-63		9
48	Intracellular pH and the stimulus-secretion coupling in insulin-producing RINm5F cells. <i>Biochemical Journal</i> , 1992 , 287 (Pt 1), 59-66	3.8	8
47	Resistance is futile? Paradoxical inhibitory effects of K channel closure in glucagon-secreting β cells. <i>Journal of Physiology</i> , 2020 , 598, 4765-4780	3.9	8

46	Calcium and potassium currents recorded from pancreatic beta-cells under voltage clamp control. <i>Advances in Experimental Medicine and Biology</i> , 1986 , 211, 167-75	3.6	8
45	Nateglinide, but not repaglinide, stimulates growth hormone release in rat pituitary cells by inhibition of K channels and stimulation of cyclic AMP-dependent exocytosis. <i>European Journal of Endocrinology</i> , 2002 , 147, 133-42	6.5	7
44	Demonstration of voltage-dependent and TTX-sensitive Na(+)-channels in human melanocytes. <i>Pigment Cell & Melanoma Research</i> , 1994 , 7, 333-8		7
43	Ca ²⁺ transport in pancreatic beta-cells during glucose stimulation of insulin secretion. <i>Upsala Journal of Medical Sciences</i> , 1980 , 85, 321-9	2.8	7
42	Short-term high glucose culture potentiates pancreatic beta cell function. <i>Scientific Reports</i> , 2018 , 8, 13061	4.9	7
41	A Variation on the Theme: SGLT2 Inhibition and Glucagon Secretion in Human Islets. <i>Diabetes</i> , 2020 , 69, 864-866	0.9	6
40	Intracellular pH, cytosolic calcium concentration and electrical activity in RINm5F insulinoma cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1994 , 1192, 107-11	3.8	6
39	Response to Comment on Satin et al. "Take Me To Your Leader": An Electrophysiological Appraisal of the Role of Hub Cells in Pancreatic Islets. <i>Diabetes</i> 2020;69:830-836. <i>Diabetes</i> , 2020 , 69, e12-e13	0.9	6
38	Peripancreatic adipose tissue protects against high-fat-diet-induced hepatic steatosis and insulin resistance in mice. <i>International Journal of Obesity</i> , 2020 , 44, 2323-2334	5.5	6
37	Incretin hormones, insulin, glucagon and advanced glycation end products in relation to cognitive function in older people with and without diabetes, a population-based study. <i>Diabetic Medicine</i> , 2020 , 37, 1157-1166	3.5	5
36	Biphasic voltage-dependent inactivation of human Na ^{1.3} , Na ^{1.6} and Na ^{1.7} Na channels expressed in rodent insulin-secreting cells. <i>Journal of Physiology</i> , 2018 , 596, 1601-1626	3.9	5
35	Mechanisms of action of entero-insular hormones and neural input on the insulin secretory process. <i>Biochemical Society Transactions</i> , 1990 , 18, 119-22	5.1	5
34	Direct determination of manganese in microgram amounts of pancreatic tissue by electrothermal atomic absorption spectrometry. <i>Analytica Chimica Acta</i> , 1982 , 140, 325-329	6.6	5
33	Nanoscale Amperometry Reveals that Only a Fraction of Vesicular Serotonin Content is Released During Exocytosis from Beta Cells. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 7593-7596	16.4	5
32	Dramatis Personae in β -Cell Mass Regulation: Enter SerpinB1. <i>Cell Metabolism</i> , 2016 , 23, 8-10	24.6	4
31	Heterogenous impairment of β cell function in type 2 diabetes is linked to cell maturation state.. <i>Cell Metabolism</i> , 2022 , 34, 256-268.e5	24.6	4
30	EFFECTS OF CATIONIC MODIFICATION ON SUPERFICIAL BINDING AND INTRACELLULAR ⁴⁵ Ca UPTAKE BY DECAPSULATED OB/OB MOUSE PANCREATIC ISLETS. <i>Biomedical Research</i> , 1987 , 8, 153-159 ¹⁻⁵		4
29	GLP-1(9-36) mediates the glucagonostatic effect of GLP-1 by promiscuous activation of the glucagon receptor		4

28	Tissue-Specific Alteration of Metabolic Pathways Influences Glycemic Regulation		4
27	Release of insulin granules by simultaneous, high-speed correlative SICM-FCM. <i>Journal of Microscopy</i> , 2021 , 282, 21-29	1.9	4
26	β-cell secretory dysfunction: a key cause of type 2 diabetes. <i>Lancet Diabetes and Endocrinology</i> , 2020 , 8, 370	18.1	3
25	Improving the physiological realism of experimental models. <i>Interface Focus</i> , 2016 , 6, 20150076	3.9	3
24	Dynamics of the cationic, bioelectrical and secretory responses to formycin A in pancreatic islet cells. <i>Pflugers Archiv European Journal of Physiology</i> , 1996 , 431, 353-62	4.6	3
23	Interaction with the inositol 1,4,5-trisphosphate receptor promotes Ca ²⁺ sequestration in permeabilised insulin-secreting cells. <i>FEBS Letters</i> , 1991 , 288, 27-9	3.8	3
22	Arginine-vasopressin mediates counter-regulatory glucagon release and is diminished in type 1 diabetes. <i>ELife</i> , 2021 , 10,	8.9	3
21	Loss of ZnT8 function protects against diabetes by enhanced insulin secretion		3
20	Heterogenous impairment of β-cell function in type 2 diabetes is linked to cell maturation state		3
19	Molecular mechanism underlying glucagon-like peptide 1 induced calcium mobilization from internal stores in insulin-secreting beta TC3 cells. <i>Acta Physiologica Scandinavica</i> , 1996 , 157, 349-51		2
18	Glucose in glucagon release. <i>Nature</i> , 1990 , 344, 716	50.4	2
17	Regulation of Insulin Granule Exocytosis 2008 , 147-176		2
16	Type 2 Diabetes Risk Alleles Reveal a Role for Peptidylglycine Alpha-amidating Monooxygenase in Beta Cell Function		2
15	Nanoscale Amperometry Reveals that Only a Fraction of Vesicular Serotonin Content is Released During Exocytosis from Beta Cells. <i>Angewandte Chemie</i> , 2021 , 133, 7671-7674	3.6	2
14	Secretory and electrophysiological characteristics of insulin cells from gastrectomized mice: evidence for the existence of insulinotropic agents in the stomach. <i>Regulatory Peptides</i> , 2007 , 139, 31-8		1
13	Electrical bursting in islet β-cells. <i>Nature</i> , 1992 , 357, 28-28	50.4	1
12	MEASUREMENTS OF CYTOPLASMIC pH IN INSULIN-RELEASING CELLS WITH INTRACELLULARLY TRAPPED PHENOL RED . <i>Biomedical Research</i> , 1986 , 7, 139-144	1.5	1
11	Electrophysiological properties of human β-cell lines EndoC-βH1 and -βH2 conform with human β-cells		1

10	Arginine-vasopressin mediates counter-regulatory glucagon release and is diminished in type 1 diabetes		1
9	The vascular architecture of the pancreatic islets: A homage to August Krogh. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2021 , 252, 110846	2.6	1
8	Reducing hyperglucagonemia in type 2 diabetes using low dose Glibenclamide: Results of the LEGEND-A pilot study.. <i>Diabetes, Obesity and Metabolism</i> , 2022 ,	6.7	0
7	Action of Incretins on the Pancreatic β Cell: Control of Glucagon Secretion 2015 , 79-97		
6	Matthias Braun, 23 July 1966-16 November 2013. <i>Diabetologia</i> , 2014 , 57, 2431-2		10.3
5	Probability of Exocytosis in Pancreatic β Cells: Dependence on Ca ²⁺ Sensing Latency Times, Ca ²⁺ Channel Kinetic Parameters, and Channel Clustering299-311		
4	Measurements of membrane potential, transmembrane ⁴⁵ Ca fluxes, cytoplasmic free Ca ²⁺ concentration and insulin release by transplantable rat insulinoma cells maintained in tissue culture. <i>British Journal of Cancer</i> , 1988 , 58, 22-9	8.7	
3	Galanin inhibits β -cell electrical activity by a G-protein-regulated sulphonylurea-insensitive mechanism 1991 , 237-245		
2	Components of insulin secretion: lessons to be learnt from capacitance. <i>The Japanese Journal of Physiology</i> , 1997 , 47 Suppl 1, S21		
1	Acetyl-CoA-carboxylase 1 (ACC1) plays a critical role in glucagon secretion.. <i>Communications Biology</i> , 2022 , 5, 238	6.7	