Peter C Butler

List of Publications by Year
in descending order

110 papers	13,674 citations	41344 49 h-index	25787 108 g-index
112 all docs	112 docs citations	112 times ranked	13639 citing authors

#	Article	IF	Citations
1	IAPP-induced beta cell stress recapitulates the islet transcriptome in type 2 diabetes. Diabetologia, 2022, 65, 173-187.	6.3	19
2	Reversing type 1 diabetes with stem cellâ€“derived islets: a step closer to the dream?. Journal of Clinical Investigation, 2022, 132, .	8.2	5
3	Supplying Insulin while Evading Immunity. New England Journal of Medicine, 2021, 384, 967-969.	27.0	1
4	Live-cell imaging of glucose-induced metabolic coupling of Î² and Î±Âcell metabolism in health and typeÂ2 diabetes. Communications Biology, 2021, 4, 594.	4.4	19
5	Liposome-based measurement of light-driven chloride transport kinetics of halorhodopsin. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183637.	2.6	4
6	The Î²-cell glucose toxicity hypothesis: Attractive but difficult to prove. Metabolism: Clinical and Experimental, 2021, 124, 154870.	3.4	16
7	A transparent low intensity pulsed ultrasound (LIPUS) chip for high-throughput cell stimulation. Lab on A Chip, 2021, 21, 4734-4742.	6.0	7
8	Activation of the HIF1Î±/PFKFB3 stress response pathway in beta cells in type 1 diabetes. Diabetologia, 2020, 63, 149-161.	6.3	49
9	Visualizing insulin vesicle neighborhoods in Î² cells by cryoâ€“electron tomography. Science Advances, 2020, 6, .	10.3	27
10	Pancreatic alpha-cell mass across adult human lifespan. European Journal of Endocrinology, 2020, 182, 219-231.	3.7	9
11	Mechanobiology of the abluminal glycocalyx. Biorheology, 2019, 56, 101-112.	0.4	13
12	IAPP toxicity activates HIF1Î±/PFKFB3 signaling delaying Î²-cell loss at the expense of Î²-cell function. Nature Communications, 2019, 10, 2679.	12.8	55
13	Pregnancy in human IAPP transgenic mice recapitulates beta cell stress in type 2 diabetes. Diabetologia, 2019, 62, 1000-1010.	6.3	9
14	Low Grade Islet but Marked Exocrine Pancreas Inflammation in an Adult with Autoimmune Pre-Diabetes. Case Reports in Endocrinology, 2019, 2019, 1-6.	0.4	2
15	Substrate-driven chemotactic assembly in an enzyme cascade. Nature Chemistry, 2018, 10, 311-317.	13.6	121
16	An Increase in Chromogranin A-Positive, Hormone-Negative Endocrine Cells in Pancreas in Cystic Fibrosis. Journal of the Endocrine Society, 2018, 2, 1058-1066.	0.2	8
17	Proteasomal degradation of the histone acetyl transferase p300 contributes to beta-cell injury in a diabetes environment. Cell Death and Disease, 2018, 9, 600.	6.3	16
18	Mechanotargeting: Mechanicsâ€Đependent Cellular Uptake of Nanoparticles. Advanced Materials, 2018, 30, e1707464.	21.0	38

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19	Light-Driven Chloride Transport Kinetics of Halorhodopsin. Biophysical Journal, 2018, 115, 353-360.	0.5	9
20	Increased Chromogranin Aâ€“Positive Hormone-Negative Cells in Chronic Pancreatitis. Journal of Clinical Endocrinology and Metabolism, 2018, 103, 2126-2135.	3.6	19
21	In the setting of Î²-cell stress, the pancreatic duct gland transcriptome shows characteristics of an activated regenerative response. American Journal of Physiology - Renal Physiology, 2018, 315, G848-G854.	3.4	4
22	Achieving high permeability and enhanced selectivity for Angstrom-scale separations using artificial water channel membranes. Nature Communications, 2018, 9, 2294.	12.8	95
23	Increased Proliferation of the Pancreatic Duct Gland Compartment in Type 1 Diabetes. Journal of Clinical Endocrinology and Metabolism, 2017, 102, jc.2016-3001.	3.6	18
24	Mechanotransmission in endothelial cells subjected to oscillatory and multi-directional shear flow. Journal of the Royal Society Interface, 2017, 14, 20170185.	3.4	37
25	Cell cycleâ€“related metabolism and mitochondrial dynamics in a replication-competent pancreatic beta-cell line. Cell Cycle, 2017, 16, 2086-2099.	2.6	27
26	Î²1-Integrin-Mediated Adhesion Is Lipid-Bilayer Dependent. Biophysical Journal, 2017, 113, 1080-1092.	0.5	22
27	Enhanced Diffusion of Passive Tracers in Active Enzyme Solutions. Nano Letters, 2017, 17, 4807-4812.	9.1	43
28	Membrane Protein Insertion into and Compatibility with Biomimetic Membranes. Advanced Biology, 2017, 1, e1700053.	3.0	24
29	Down Syndrome-Associated Diabetes Is Not Due To a Congenital Deficiency in Î² Cells. Journal of the Endocrine Society, 2017, 1, 39-45.	0.2	7
30	Effective encapsulation and biological activity of phosphorylated chemotherapeutics in calcium phosphosilicate nanoparticles for the treatment of pancreatic cancer. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 2313-2324.	3.3	11
31	Pancreatic Nonhormone Expressing Endocrine Cells in Children With Type 1 Diabetes. Journal of the Endocrine Society, 2017, 1, 385-395.	0.2	22
32	Islet inflammation and ductal proliferation may be linked to increased pancreatitis risk in type 2 diabetes. JCI Insight, 2017, 2, .	5.0	17
33	Recovery of high-quality RNA from laser capture microdissected human and rodent pancreas. Journal of Histotechnology, 2016, 39, 59-65.	0.5	26
34	Increased Frequency of Hormone Negative and Polyhormonal Endocrine Cells in Lean Individuals With Type 2 Diabetes. Journal of Clinical Endocrinology and Metabolism, 2016, 101, 3628-3636.	3.6	51
35	Glucagon-like Peptide 1 Drugs as Second-line Therapy for Type 2 Diabetes. JAMA Internal Medicine, 2016, 176, 1440.	5.1	9
36	Increased Hormone-Negative Endocrine Cells in the Pancreas in Type 1 Diabetes. Journal of Clinical Endocrinology and Metabolism, 2016, 101, 3487-3496.	3.6	50

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37	Using handgrip strength to screen for diabetes in developing countries. Journal of Medical Engineering and Technology, 2016, 40, 8-14.	1.4	11
38	Evaluation of immunohistochemical staining for glucagon in human pancreatic tissue. Journal of Histotechnology, 2016, 39, 8-16.	0.5	3
39	CHOP Contributes to, But Is Not the Only Mediator of, IAPP Induced Î²-Cell Apoptosis. Molecular Endocrinology, 2016, 30, 446-454.	3.7	39
40	Î²-Cell Deficit in Obese Type 2 Diabetes, a Minor Role of Î²-Cell Dedifferentiation and Degranulation. Journal of Clinical Endocrinology and Metabolism, 2016, 101, 523-532.	3.6	107
41	Î² Cellâ€“specific increased expression of calpastatin prevents diabetes induced by islet amyloid polypeptide toxicity. JCI Insight, 2016, 1, e89590.	5.0	17
42	Pulsatile insulin secretion, impaired glucose tolerance and type 2 diabetes. Molecular Aspects of Medicine, 2015, 42, 61-77.	6.4	186
43	Impulsive Enzymes: A New Force in Mechanobiology. Cellular and Molecular Bioengineering, 2015, 8, 106-118.	2.1	27
44	Highly permeable artificial water channels that can self-assemble into two-dimensional arrays. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9810-9815.	7.1	152
45	Lipid bilayer control of nascent adhesion formation. Biomedical Engineering Letters, 2015, 5, 172-180.	4.1	4
46	Membrane Curvature-sensing and Curvature-inducing Activity of Islet Amyloid Polypeptide and Its Implications for Membrane Disruption. Journal of Biological Chemistry, 2015, 290, 25782-25793.	3.4	40
47	Molecular Cloning, Overexpression and Characterization of a Novel Water Channel Protein from Rhodobacter sphaeroides. PLoS ONE, 2014, 9, e86830.	2.5	30
48	UCHL1 deficiency exacerbates human islet amyloid polypeptide toxicity in Î²-cells. Autophagy, 2014, 10, 1004-1014.	9.1	54
49	Shear-induced force transmission in a multicomponent, multicell model of the endothelium. Journal of the Royal Society Interface, 2014, 11, 20140431.	3.4	24
50	Insulin-Degrading Enzyme Inhibition, a Novel Therapy for Type 2 Diabetes?. Cell Metabolism, 2014, 20, 201-203.	16.2	25
51	Autophagy defends pancreatic Î² cells from human islet amyloid polypeptide-induced toxicity. Journal of Clinical Investigation, 2014, 124, 3489-3500.	8.2	188
52	A Critical Analysis of the Clinical Use of Incretin-Based Therapies. Diabetes Care, 2013, 36, 2118-2125.	8.6	264
53	Î²-Cell Failure in Type 2 Diabetes: A Case of Asking Too Much of Too Few?. Diabetes, 2013, 62, 327-335.	0.6	103
54	Response to Comment on: Saisho et al. Î²-Cell Mass and Turnover in Humans: Effects of Obesity and Aging. Diabetes Care 2013;36:111â€“117. Diabetes Care, 2013, 36, e112-e112.	8.6	6

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55	Î²-Cell Mass and Turnover in Humans. Diabetes Care, 2013, 36, 111-117.	8.6	330
56	Pulsatile Portal Vein Insulin Delivery Enhances Hepatic Insulin Action and Signaling. Diabetes, 2012, 61, 2269-2279.	0.6	142
57	Beta cell nuclear musculoaponeurotic fibrosarcoma oncogene family A (MafA) is deficient in type 2 diabetes. Diabetologia, 2012, 55, 2985-2988.	6.3	44
58	Chronic GLP-1 Receptor Activation by Exendin-4 Induces Expansion of Pancreatic Duct Glands in Rats and Accelerates Formation of Dysplastic Lesions and Chronic Pancreatitis in the KrasG12D Mouse Model. Diabetes, 2012, 61, 1250-1262.	0.6	201
59	Shortened Î²-cell lifespan leads to Î²-cell deficit in a rodent model of type 2 diabetes. American Journal of Physiology - Endocrinology and Metabolism, 2011, 300, E933-E938.	3.5	4
60	Cyclin-Dependent Kinase 5 Promotes Pancreatic Â-Cell Survival via Fak-Akt Signaling Pathways. Diabetes, 2011, 60, 1186-1197.	0.6	44
61	Farewell Statement From Dr. Peter Butler as Outgoing Editor in Chief of Diabetes. Diabetes, 2011, 60, 3099-3099.	0.6	0
62	A low frequency of pancreatic islet insulin-expressing cells derived from cord blood stem cell allografts in humans. Diabetologia, 2011, 54, 1066-1074.	6.3	12
63	Î²-Cell Dysfunctional ERAD/Ubiquitin/Proteasome System in Type 2 Diabetes Mediated by Islet Amyloid Polypeptideâ€“Induced UCH-L1 Deficiency. Diabetes, 2011, 60, 227-238.	0.6	103
64	Relationship between fractional pancreatic beta cell area and fasting plasma glucose concentration in monkeys. Diabetologia, 2010, 53, 111-114.	6.3	27
65	Pancreatic duct replication is increased with obesity and type 2 diabetes in humans. Diabetologia, 2010, 53, 21-26.	6.3	87
66	Adaptive changes in pancreatic beta cell fractional area and beta cell turnover in human pregnancy. Diabetologia, 2010, 53, 2167-2176.	6.3	371
67	Evidence for Proteotoxicity in Î² Cells in Type 2 Diabetes. American Journal of Pathology, 2010, 176, 861-869.	3.8	207
68	The effect of curcumin on human islet amyloid polypeptide misfolding and toxicity. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2010, 17, 118-128.	3.0	83
69	Insulin Secretion. , 2010, , 624-635.		0
70	Successful Versus Failed Adaptation to High-Fat Dietâ€“Induced Insulin Resistance. Diabetes, 2009, 58, 906-916.	0.6	84
71	Annexin A5 Directly Interacts with Amyloidogenic Proteins and Reduces Their Toxicity. Biochemistry, 2009, 48, 10568-10576.	2.5	19
72	Beneficial Endocrine but Adverse Exocrine Effects of Sitagliptin in the Human Islet Amyloid Polypeptide Transgenic Rat Model of Type 2 Diabetes. Diabetes, 2009, 58, 1604-1615.	0.6	222

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73	Development of factors to convert frequency to rate for Î²-cell replication and apoptosis quantified by time-lapse video microscopy and immunohistochemistry. American Journal of Physiology - Endocrinology and Metabolism, 2009, 296, E89-E96.	3.5	12
74	Dynamics of Î²-cell turnover: evidence for Î²-cell turnover and regeneration from sources of Î²-cells other than Î²-cell replication in the HIP rat. American Journal of Physiology - Endocrinology and Metabolism, 2009, 297, E323-E330.	3.5	23
75	Relationship between pancreatic vesicular monoamine transporter 2 (VMAT2) and insulin expression in human pancreas. Journal of Molecular Histology, 2008, 39, 543-551.	2.2	80
76	Many Commercially Available Antibodies for Detection of CHOP Expression as a Marker of Endoplasmic Reticulum Stress Fail Specificity Evaluation. Cell Biochemistry and Biophysics, 2008, 51, 105-107.	1.8	24
77	Î²-Cell Replication Is the Primary Mechanism Subserving the Postnatal Expansion of Î²-Cell Mass in Humans. Diabetes, 2008, 57, 1584-1594.	0.6	616
78	Adaptations in pulsatile insulin secretion, hepatic insulin clearance, and Î²-cell mass to age-related insulin resistance in rats. American Journal of Physiology - Endocrinology and Metabolism, 2008, 295, E832-E841.	3.5	48
79	Islet Amyloid in Type 2 Diabetes, and the Toxic Oligomer Hypothesis. Endocrine Reviews, 2008, 29, 303-316.	20.1	541
80	Hematopoietic Stem Cells Derived From Adult Donors Are Not a Source of Pancreatic Â-Cells in Adult Nondiabetic Humans. Diabetes, 2007, 56, 1810-1816.	0.6	46
81	Toxic Human Islet Amyloid Polypeptide (h-IAPP) Oligomers Are Intracellular, and Vaccination to Induce Anti-Toxic Oligomer Antibodies Does Not Prevent h-IAPP-Induced Â-Cell Apoptosis in h-IAPP Transgenic Mice. Diabetes, 2007, 56, 1324-1332.	0.6	167
82	High Expression Rates of Human Islet Amyloid Polypeptide Induce Endoplasmic Reticulum Stressâ€“Mediated Î²-Cell Apoptosis, a Characteristic of Humans With Type 2 but Not Type 1 Diabetes. Diabetes, 2007, 56, 2016-2027.	0.6	362
83	Human Islet Amyloid Polypeptide Oligomers Disrupt Cell Coupling, Induce Apoptosis, and Impair Insulin Secretion in Isolated Human Islets. Diabetes, 2007, 56, 65-71.	0.6	170
84	Integrated multimodal microscopy, time-resolved fluorescence, and optical-trap rheometry: toward single molecule mechanobiology. Journal of Biomedical Optics, 2007, 12, 014012.	2.6	36
85	Induction of endoplasmic reticulum stress-induced Î²-cell apoptosis and accumulation of polyubiquitinated proteins by human islet amyloid polypeptide. American Journal of Physiology - Endocrinology and Metabolism, 2007, 293, E1656-E1662.	3.5	126
86	The replication of Î² cells in normal physiology, in disease and for therapy. Nature Clinical Practice Endocrinology and Metabolism, 2007, 3, 758-768.	2.8	238
87	Pancreas volumes in humans from birth to age one hundred taking into account sex, obesity, and presence of typeâ€2 diabetes. Clinical Anatomy, 2007, 20, 933-942.	2.7	378
88	Modestly increased beta cell apoptosis but no increased beta cell replication in recent-onset type 1 diabetic patients who died of diabetic ketoacidosis. Diabetologia, 2007, 50, 2323-2331.	6.3	116
89	Relationship Between Â-Cell Mass and Fasting Blood Glucose Concentration in Humans. Diabetes Care, 2006, 29, 717-718.	8.6	184
90	Direct evidence of attempted beta cell regeneration in an 89-year-old patient with recent-onset type 1 diabetes. Diabetologia, 2006, 49, 1838-1844.	6.3	177

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91	Increased islet beta cell replication adjacent to intrapancreatic gastrinomas in humans. Diabetologia, 2006, 49, 2689-2696.	6.3	62
92	Response to comment on: Meier JJ, Lin JC, Butler AE, Galasso R, Martinez DS, Butler PC (2006) Direct evidence of attempted beta cell regeneration in an 89-year-old patient with recent-onset type 1 diabetes. Diabetologia 49:1838â€“1844. Diabetologia, 2006, 49, 2803-2804.	6.3	7
93	The Potential for Stem Cell Therapy in Diabetes. Pediatric Research, 2006, 59, 65R-73R.	2.3	50
94	Inhibition of human IAPP fibril formation does not prevent Î²-cell death: evidence for distinct actions of oligomers and fibrils of human IAPP. American Journal of Physiology - Endocrinology and Metabolism, 2006, 291, E1317-E1324.	3.5	148
95	Islet Amyloid Polypeptide (IAPP) Transgenic Rodents as Models for Type 2 Diabetes. ILAR Journal, 2006, 47, 225-233.	1.8	121
96	Î²-Cell Deficit Due to Increased Apoptosis in the Human Islet Amyloid Polypeptide Transgenic (HIP) Rat Recapitulates the Metabolic Defects Present in Type 2 Diabetes. Diabetes, 2006, 55, 2106-2114.	0.6	134
97	Mechanisms of Impaired Fasting Glucose and Glucose Intolerance Induced by a Â50% Pancreatectomy. Diabetes, 2006, 55, 2347-2356.	0.6	71
98	Sustained beta cell apoptosis in patients with long-standing type 1 diabetes: indirect evidence for islet regeneration?. Diabetologia, 2005, 48, 2221-2228.	6.3	441
99	Activation of Peroxisome Proliferator-Activated Receptor-Î³ by Rosiglitazone Protects Human Islet Cells against Human Islet Amyloid Polypeptide Toxicity by a Phosphatidylinositol 3â€²-Kinase-Dependent Pathway. Journal of Clinical Endocrinology and Metabolism, 2005, 90, 6678-6686.	3.6	94
100	Pulsatile Insulin Secretion Dictates Systemic Insulin Delivery by Regulating Hepatic Insulin Extraction In Humans. Diabetes, 2005, 54, 1649-1656.	0.6	201
101	Diabetes Due to a Progressive Defect in Î²-Cell Mass in Rats Transgenic for Human Islet Amyloid Polypeptide (HIP Rat). Diabetes, 2004, 53, 1509-1516.	0.6	239
102	Î²-Cell Deficit and Increased Î²-Cell Apoptosis in Humans With Type 2 Diabetes. Diabetes, 2003, 52, 102-110.	0.6	3,615
103	Increased Â-Cell Apoptosis Prevents Adaptive Increase in Â-Cell Mass in Mouse Model of Type 2 Diabetes: Evidence for Role of Islet Amyloid Formation Rather Than Direct Action of Amyloid. Diabetes, 2003, 52, 2304-2314.	0.6	374
104	Replication Increases Â-Cell Vulnerability to Human Islet Amyloid Polypeptide-Induced Apoptosis. Diabetes, 2003, 52, 1701-1708.	0.6	107
105	Glucose Stimulates Pulsatile Insulin Secretion from Human Pancreatic Islets by Increasing Secretory Burst Mass: Dose-Response Relationships. Journal of Clinical Endocrinology and Metabolism, 2003, 88, 742-747.	3.6	53
106	Pulsatile Insulin Secretion: Detection, Regulation, and Role in Diabetes. Diabetes, 2002, 51, S245-S254.	0.6	180
107	Overnight inhibition of insulin secretion restores pulsatility and proinsulin/insulin ratio in type 2 diabetes. American Journal of Physiology - Endocrinology and Metabolism, 2000, 279, E520-E528.	3.5	110
108	Direct Measurement of Pulsatile Insulin Secretion from the Portal Vein in Human Subjects1. Journal of Clinical Endocrinology and Metabolism, 2000, 85, 4491-4499.	3.6	132

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109	Insulin Secretion in Type II Diabetes Mellitus. , 1997, , 119-136.		8
110	Islet Amyloid Polypeptide (IAPP) and Insulin Secretion. , 1994, , 381-398.		5