C Bruce Verchere

List of Publications by Year
in descending order

110 papers	6,625 citations	46918 47 h-index	66788 78 g-index
117 all docs	117 docs citations	117 times ranked	7649 citing authors

#	Article	IF	Citations
1	Î²-cell ABCA1 influences insulin secretion, glucose homeostasis and response to thiazolidinedione treatment. Nature Medicine, 2007, 13, 340-347.	15.2	366
2	Gut Microbiota as a Trigger for Metabolic Inflammation in Obesity and Type 2 Diabetes. Frontiers in Immunology, 2020, 11, 571731.	2.2	281
3	The Flavanol (â˜)-Epigallocatechin 3-Gallate Inhibits Amyloid Formation by Islet Amyloid Polypeptide, Disaggregates Amyloid Fibrils, and Protects Cultured Cells against IAPP-Induced Toxicity. Biochemistry, 2010, 49, 8127-8133.	1.2	241
4	Prediction of spontaneous autoimmune diabetes in NOD mice by quantification of autoreactive T cells in peripheral blood. Journal of Clinical Investigation, 2003, 111, 217-223.	3.9	201
5	Resident Macrophages Mediate Islet Amyloid Polypeptideâ€“Induced Islet IL-1Î² Production and Î²-Cell Dysfunction. Diabetes, 2014, 63, 1698-1711.	0.3	192
6	IL-1 Blockade Attenuates Islet Amyloid Polypeptide-Induced Proinflammatory Cytokine Release and Pancreatic Islet Graft Dysfunction. Journal of Immunology, 2011, 187, 2755-2765.	0.4	175
7	Islet amyloid polypeptide and type 2 diabetes. Experimental Gerontology, 2003, 38, 347-351.	1.2	171
8	Toxic oligomers and islet beta cell death: guilty by association or convicted by circumstantial evidence?. Diabetologia, 2010, 53, 1046-1056.	2.9	160
9	IL-33 Reverses an Obesity-Induced Deficit in Visceral Adipose Tissue ST2+ T Regulatory Cells and Ameliorates Adipose Tissue Inflammation and Insulin Resistance. Journal of Immunology, 2015, 194, 4777-4783.	0.4	146
10	Different Effects of FK506, Rapamycin, and Mycophenolate Mofetil on Glucose-Stimulated Insulin Release and Apoptosis in Human Islets. Cell Transplantation, 2009, 18, 833-845.	1.2	144
11	A Multi-Year Analysis of Islet Transplantation Compared With Intensive Medical Therapy on Progression of Complications in Type 1 Diabetes. Transplantation, 2008, 86, 1762-1766.	0.5	138
12	Time-resolved studies define the nature of toxic IAPP intermediates, providing insight for anti-amyloidosis therapeutics. ELife, 2016, 5, .	2.8	126
13	Cholesterol in islet dysfunction and type 2 diabetes. Journal of Clinical Investigation, 2008, 118, 403-408.	3.9	125
14	miR-33a Modulates ABCA1 Expression, Cholesterol Accumulation, and Insulin Secretion in Pancreatic Islets. Diabetes, 2012, 61, 653-658.	0.3	122
15	HDL and LDL cholesterol significantly influence Î²-cell function in type 2 diabetes mellitus. Current Opinion in Lipidology, 2010, 21, 178-185.	1.2	120
16	Role of Â-Cell Prohormone Convertase (PC)1/3 in Processing of Pro-Islet Amyloid Polypeptide. Diabetes, 2004, 53, 141-148.	0.3	114
17	Carriers of Loss-of-Function Mutations in ABCA1 Display Pancreatic Â-Cell Dysfunction. Diabetes Care, 2010, 33, 869-874.	4.3	114
18	Locus co-occupancy, nucleosome positioning, and H3K4me1 regulate the functionality of FOXA2-, HNF4A-, and PDX1-bound loci in islets and liver. Genome Research, 2010, 20, 1037-1051.	2.4	109

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19	Cholesterol efflux via ATP-binding cassette transporter A1 (ABCA1) and cholesterol uptake via the LDL receptor influences cholesterol-induced impairment of beta cell function in mice. Diabetologia, 2010, 53, 1110-1119.	2.9	108
20	Prediction of spontaneous autoimmune diabetes in NOD mice by quantification of autoreactive T cells in peripheral blood. Journal of Clinical Investigation, 2003, 111, 217-223.	3.9	108
21	Loss of Both ABCA1 and ABCG1 Results in Increased Disturbances in Islet Sterol Homeostasis, Inflammation, and Impaired Î²-Cell Function. Diabetes, 2012, 61, 659-664.	0.3	107
22	Increased Dietary Fat Promotes Islet Amyloid Formation and Â-Cell Secretory Dysfunction in a Transgenic Mouse Model of Islet Amyloid. Diabetes, 2003, 52, 372-379.	0.3	105
23	Islet Cholesterol Accumulation Due to Loss of ABCA1 Leads to Impaired Exocytosis of Insulin Granules. Diabetes, 2011, 60, 3186-3196.	0.3	97
24	Proinsulin Targeting to the Regulated Pathway Is Not Impaired in Carboxypeptidase E-deficientCpe /Cpe Mice. Journal of Biological Chemistry, 1997, 272, 27532-27534.	1.6	96
25	Impaired NH2-Terminal Processing of Human Proislet Amyloid Polypeptide by the Prohormone Convertase PC2 Leads to Amyloid Formation and Cell Death. Diabetes, 2006, 55, 2192-2201.	0.3	95
26	Recognition of HLA Class I-Restricted Â-Cell Epitopes in Type 1 Diabetes. Diabetes, 2006, 55, 3068-3074.	0.3	95
27	Identification of a Heparin Binding Domain in the N-terminal Cleavage Site of Pro-islet Amyloid Polypeptide. Journal of Biological Chemistry, 2001, 276, 16611-16616.	1.6	93
28	Improving function and survival of pancreatic islets by endogenous production of glucagon-like peptide 1 (GLP-1). Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13468-13473.	3.3	92
29	Prevention of murine autoimmune diabetes by CCL22-mediated Treg recruitment to the pancreatic islets. Journal of Clinical Investigation, 2011, 121, 3024-3028.	3.9	90
30	Loss of Cyp8b1 Improves Glucose Homeostasis by Increasing GLP-1. Diabetes, 2015, 64, 1168-1179.	0.3	89
31	Rifampicin Does Not Prevent Amyloid Fibril Formation by Human Islet Amyloid Polypeptide but Does Inhibit Fibril Thioflavin-T Interactions: Implications for Mechanistic Studies of Î²-Cell Death. Biochemistry, 2008, 47, 6016-6024.	1.2	84
32	Identification of Novel HLA-A*0201-Restricted Epitopes in Recent-Onset Type 1 Diabetic Subjects and Antibody-Positive Relatives. Diabetes, 2006, 55, 3061-3067.	0.3	83
33	Metabolic stress, <scp>IAPP</scp> and islet amyloid. Diabetes, Obesity and Metabolism, 2012, 14, 68-77.	2.2	82
34	Identification of a Â-Cell-Specific HLA Class I Restricted Epitope in Type 1 Diabetes. Diabetes, 2003, 52, 2647-2651.	0.3	81
35	Improved Human Pancreatic Islet Isolation for a Prospective Cohort Study of Islet Transplantation vs Best Medical Therapy in Type 1 Diabetes Mellitus. Archives of Surgery, 2005, 140, 735.	2.3	71
36	Amyloid inhibitors enhance survival of cultured human islets. Biochimica Et Biophysica Acta - General Subjects, 2009, 1790, 566-574.	1.1	71

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37	T regulatory cell chemokine production mediates pathogenic T cell attraction and suppression. Journal of Clinical Investigation, 2016, 126, 1039-1051.	3.9	71
38	Processing of Pro-Islet Amyloid Polypeptide in the Constitutive and Regulated Secretory Pathways of Î² Cells. Molecular Endocrinology, 2005, 19, 2154-2163.	3.7	66
39	TRAIL-engineered pancreas-derived mesenchymal stem cells: characterization and cytotoxic effects on pancreatic cancer cells. Cancer Gene Therapy, 2012, 19, 652-658.	2.2	65
40	Islet prohormone processing in health and disease. Diabetes, Obesity and Metabolism, 2018, 20, 64-76.	2.2	62
41	The X-Linked Inhibitor of Apoptosis Protein Enhances Survival of Murine Islet Allografts. Diabetes, 2005, 54, 2533-2540.	0.3	60
42	Role of Carboxypeptidase E in Processing of Pro-Islet Amyloid Polypeptide in Î²-Cells. Endocrinology, 2005, 146, 1808-1817.	1.4	60
43	IL-1 mediates amyloid-associated islet dysfunction and inflammation in human islet amyloid polypeptide transgenic mice. Diabetologia, 2015, 58, 575-585.	2.9	56
44	Thioredoxin-interacting Protein Promotes Islet Amyloid Polypeptide Expression through miR-124a and FoxA2. Journal of Biological Chemistry, 2014, 289, 11807-11815.	1.6	55
45	Cholesterol in Î²-cell Dysfunction: The Emerging Connection Between HDL Cholesterol and Type 2 Diabetes. Current Diabetes Reports, 2010, 10, 55-60.	1.7	54
46	Improving glycaemic control in type 2 diabetes: <scp>S</scp>timulate insulin secretion or provide betaâ€cell rest?. Diabetes, Obesity and Metabolism, 2017, 19, 1205-1213.	2.2	54
47	Small Interfering RNA-Mediated Suppression of Proislet Amyloid Polypeptide Expression Inhibits Islet Amyloid Formation and Enhances Survival of Human Islets in Culture. Diabetes, 2008, 57, 3045-3055.	0.3	48
48	Death and Dysfunction of Transplanted Î²-Cells: Lessons Learned From Type 2 Diabetes?. Diabetes, 2014, 63, 12-19.	0.3	47
49	The Sulfated Triphenyl Methane Derivative Acid Fuchsin Is a Potent Inhibitor of Amyloid Formation by Human Islet Amyloid Polypeptide and Protects against the Toxic Effects of Amyloid Formation. Journal of Molecular Biology, 2010, 400, 555-566.	2.0	46
50	Early Treatment of NOD Mice With B7-H4 Reduces the Incidence of Autoimmune Diabetes. Diabetes, 2011, 60, 3246-3255.	0.3	43
51	B7-H4 Treatment of T Cells Inhibits ERK, JNK, p38, and AKT Activation. PLoS ONE, 2012, 7, e28232.	1.1	40
52	Differential Activation of Innate Immune Pathways by Distinct Islet Amyloid Polypeptide (IAPP) Aggregates. Journal of Biological Chemistry, 2016, 291, 8908-8917.	1.6	40
53	Proteoglycans synthesized and secreted by pancreatic islet Î²-cells bind amylin. Archives of Biochemistry and Biophysics, 2003, 413, 182-190.	1.4	38
54	IAPP and type 1 diabetes: implications for immunity, metabolism and islet transplants. Journal of Molecular Endocrinology, 2018, 60, R57-R75.	1.1	37

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55	Islet Macrophages Shift to a Reparative State following Pancreatic Beta-Cell Death and Are a Major Source of Islet Insulin-like Growth Factor-1. IScience, 2020, 23, 100775.	1.9	37
56	Local Expression of B7-H4 by Recombinant Adenovirus Transduction in Mouse Islets Prolongs Allograft Survival. Transplantation, 2009, 87, 482-490.	0.5	35
57	Advances and Challenges in Islet Transplantation: Islet Procurement Rates and Lessons Learned from Suboptimal Islet Transplantation. Journal of Transplantation, 2011, 2011, 1-6.	0.3	34
58	Kinetics and genomic profiling of adult human and mouse Î²-cell maturation. Islets, 2011, 3, 175-187.	0.9	34
59	Measurement of Pro-Islet Amyloid Polypeptide (1â€“48) in Diabetes and Islet Transplants. Journal of Clinical Endocrinology and Metabolism, 2017, 102, 2595-2603.	1.8	34
60	Altered Glutathione Homeostasis in Heart Augments Cardiac Lipotoxicity Associated with Diet-induced Obesity in Mice. Journal of Biological Chemistry, 2011, 286, 42483-42493.	1.6	32
61	The effect of apolipoprotein E deficiency on islet amyloid deposition in human islet amyloid polypeptide transgenic mice. Diabetologia, 2003, 46, 71-79.	2.9	31
62	Human aging is associated with parallel reductions in insulin and amylin release. American Journal of Physiology - Endocrinology and Metabolism, 1998, 275, E785-E791.	1.8	30
63	Selecting exercise regimens and strains to modify obesity and diabetes in rodents: an overview. Clinical Science, 2010, 119, 57-74.	1.8	29
64	Maternal folic acid supplementation with vitamin B ₁₂ deficiency during pregnancy and lactation affects the metabolic health of adult female offspring but is dependent on offspring diet. FASEB Journal, 2018, 32, 5039-5050.	0.2	29
65	Islet Remodeling in Female Mice with Spontaneous Autoimmune and Streptozotocin-Induced Diabetes. PLoS ONE, 2014, 9, e102843.	1.1	29
66	Role of the TLR signaling molecule TRIF inÂÎ²-cell function and glucose homeostasis. Islets, 2010, 2, 104-111.	0.9	28
67	CCL22 Prevents Rejection of Mouse Islet Allografts and Induces Donor-Specific Tolerance. Cell Transplantation, 2015, 24, 2143-2154.	1.2	28
68	Cellular Mechanisms of CCL22-Mediated Attenuation of Autoimmune Diabetes. Journal of Immunology, 2015, 194, 3054-3064.	0.4	28
69	Altered Î²-Cell Prohormone Processing and Secretion in Type 1 Diabetes. Diabetes, 2021, 70, 1038-1050.	0.3	28
70	Des-(27-31)C-Peptide. Journal of Biological Chemistry, 1996, 271, 27475-27481.	1.6	25
71	Synergistic inhibition of tumor necrosis factor-related apoptosis-inducing ligand-induced apoptosis in human pancreatic Î² cells by Bcl-2 and X-linked inhibitor of apoptosis. Human Immunology, 2005, 66, 274-284.	1.2	25
72	Application of in situ ductal perfusion to facilitate isolation of high-quality RNA from mouse pancreas. BioTechniques, 2006, 40, 617-621.	0.8	25

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73	Amyloid Formation in Human Islets Is Enhanced by Heparin and Inhibited by Heparinase. American Journal of Transplantation, 2015, 15, 1519-1530.	2.6	24
74	ABCA1 deficiency and cellular cholesterol accumulation increases islet amyloidogenesis in mice. Diabetologia, 2016, 59, 1242-1246.	2.9	24
75	Canine galanin: sequence, expression and pancreatic effects. Regulatory Peptides, 1994, 50, 1-11.	1.9	23
76	Islet Allograft Rejection Is Independent of Toll-Like Receptor Signaling in Mice. Transplantation, 2009, 88, 1075-1080.	0.5	22
77	XIAP inhibition of Î²-cell apoptosis reduces the number of islets required to restore euglycemia in a syngeneic islet transplantation model. Islets, 2010, 2, 18-23.	0.9	22
78	Translational Control of Glucose-Induced Islet Amyloid Polypeptide Production in Pancreatic Islets. Endocrinology, 2012, 153, 2082-2087.	1.4	22
79	Differentiation of Mouse Embryonic Stem Cells into Endoderm without Embryoid Body Formation. PLoS ONE, 2010, 5, e14146.	1.1	22
80	A Call for Improved Reporting of Human Islet Characteristics in Research Articles. Diabetes, 2019, 68, 239-240.	0.3	21
81	The Î² Cell in Diabetes: Integrating Biomarkers With Functional Measures. Endocrine Reviews, 2021, 42, 528-583.	8.9	21
82	Neuronal PAS Domain Protein 4 Suppression of Oxygen Sensing Optimizes Metabolism during Excitation of Neuroendocrine Cells. Cell Reports, 2018, 22, 163-174.	2.9	19
83	Activating the NLRP3 Inflammasome Using the Amyloidogenic Peptide IAPP. Methods in Molecular Biology, 2013, 1040, 9-18.	0.4	18
84	Progression of spontaneous autoimmune diabetes is associated with a switch in the killing mechanism used by autoreactive CTL. International Immunology, 2004, 16, 1657-1662.	1.8	17
85	B7-H4 Induces Donor-Specific Tolerance in Mouse Islet Allografts. Cell Transplantation, 2012, 21, 99-111.	1.2	17
86	Loss of prohormone convertase 2 promotes beta cell dysfunction in a rodent transplant model expressing human pro-islet amyloid polypeptide. Diabetologia, 2017, 60, 453-463.	2.9	16
87	Improving Islet Engraftment by Gene Therapy. Journal of Transplantation, 2011, 2011, 1-7.	0.3	15
88	Adult stem or progenitor cells in treatment for type 1 diabetes: current progress. Canadian Journal of Surgery, 2007, 50, 137-42.	0.5	14
89	Heterogeneity of Diabetes: Î²-Cells, Phenotypes, and Precision Medicine: Proceedings of an International Symposium of the Canadian Institutes of Health Researchâ€™s Institute of Nutrition, Metabolism and Diabetes and the U.S. National Institutes of Healthâ€™s National Institute of Diabetes and Digestive and Kidney Diseases. Diabetes Care, 2022, 45, 3-22.	4.3	14
90	Glucagon-Like Peptide-1 Receptor Agonists: Beta-Cell Protection or Exhaustion?. Trends in Endocrinology and Metabolism, 2016, 27, 442-445.	3.1	12

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91	PAM haploinsufficiency does not accelerate the development of diet- and human IAPP-induced diabetes in mice. Diabetologia, 2020, 63, 561-576.	2.9	12
92	Endogenous Expression of B7-H4 Improves Long-term Murine Islet Allograft Survival. Transplantation, 2013, 95, 94-99.	0.5	11
93	T cells accumulate in non-diabetic islets during ageing. Immunity and Ageing, 2021, 18, 8.	1.8	10
94	B7-H4 Pathway in Islet Transplantation andÎ²-Cell Replacement Therapies. Journal of Transplantation, 2011, 2011, 1-8.	0.3	8
95	Heterogeneity of Diabetes: Î²-Cells, Phenotypes, and Precision Medicine: Proceedings of an International Symposium of the Canadian Institutes of Health Researchâ€™s Institute of Nutrition, Metabolism and Diabetes and the U.S. National Institutes of Healthâ€™s National Institute of Diabetes and Digestive and Kidney Diseases. Diabetes, 2022, 71, 1-22.	0.3	8
96	Modulation of Innate Immunity by Amyloidogenic Peptides. Trends in Immunology, 2019, 40, 762-780.	2.9	6
97	AAV GCG-EGFP, a new tool to identify glucagon-secreting Î±-cells. Scientific Reports, 2019, 9, 10829.	1.6	6
98	Pancreatic 18F-FDG uptake is increased in type 2 diabetes patients compared to non-diabetic controls. PLoS ONE, 2019, 14, e0213202.	1.1	6
99	Probing the Meaning of Persistent Propeptide Release in Type 1 Diabetes. Diabetes Care, 2019, 42, 183-185.	4.3	5
100	Mice lacking PC1/3 expression in POMC-expressing cells do not develop obesity. Endocrinology, 2021, , .	1.4	5
101	Interactions between islets and regulatory immune cells in health and type 1 diabetes. Diabetologia, 2021, 64, 2378-2388.	2.9	5
102	Blockade of both B7-H4 and CTLA-4 co-signaling pathways enhances mouse islet allograft survival. Islets, 2012, 4, 284-295.	0.9	4
103	Peptide Therapeutics for Weight Loss: Preventing Plasma Pancreatic Polypeptide Proteolysis. Endocrinology, 2017, 158, 1567-1568.	1.4	4
104	When beta cells talk back. Diabetologia, 2018, 61, 39-42.	2.9	4
105	Prevention of autoimmune diabetes and islet allograft rejection by beta cell expression of XIAP: Insight into possible mechanisms of local immunomodulation. Molecular and Cellular Endocrinology, 2018, 477, 48-56.	1.6	4
106	Elevated islet prohormone ratios as indicators of insulin dependency in auto-islet transplant recipients. American Journal of Transplantation, 2022, 22, 1992-2005.	2.6	3
107	Heterogeneity of Diabetes: Î²-Cells, Phenotypes, and Precision Medicine: Proceedings of an International Symposium of the Canadian Institutes of Health Researchâ€™s Institute of Nutrition, Metabolism and Diabetes and the U.S. National Institutes of Healthâ€™s National Institute of Diabetes and Digestive and Kidney Diseases. Canadian Journal of Diabetes, 2021, 45, 697-713.	0.4	2
108	Insulin null ÃŸ-cells have a prohormone processing defect that is not reversed by AAV rescue of proinsulin expression. Endocrinology, 2022, , .	1.4	1

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109	2011 Canadian Diabetes Association, Young Scientist Award Winner, Minna Woo MD PhD. Canadian Journal of Diabetes, 2011, 35, 488-489.	0.4	0
110	Reawakening the Duct Cell Progenitor?. Endocrinology, 2016, 157, 52-53.	1.4	0