Clayton E Mathews

List of Publications by Year
in descending order

107 papers	5,170 citations	101543 36 h-index	110387 64 g-index
116 all docs	116 docs citations	116 times ranked	7012 citing authors

#	Article	IF	Citations
1	Pancreas Whole Tissue Transcriptomics Highlights the Role of the Exocrine Pancreas in Patients With Recently Diagnosed Type 1 Diabetes. Frontiers in Endocrinology, 2022, 13, 861985.	3.5	0
2	Influence of PTPN22 Allotypes on Innate and Adaptive Immune Function in Health and Disease. Frontiers in Immunology, 2021, 12, 636618.	4.8	21
3	Low-Dose ATG/GCSF in Established Type 1 Diabetes: A Five-Year Follow-up Report. Diabetes, 2021, 70, 1123-1129.	0.6	11
4	Proinsulin-Reactive CD4 T Cells in the Islets of Type 1 Diabetes Organ Donors. Frontiers in Endocrinology, 2021, 12, 622647.	3.5	20
5	Islet sympathetic innervation and islet neuropathology in patients with type 1 diabetes. Scientific Reports, 2021, 11, 6562.	3.3	18
6	Observing Islet Function and Islet-Immune Cell Interactions in Live Pancreatic Tissue Slices. Journal of Visualized Experiments, 2021, , .	0.3	7
7	Overexpression of the <i>PTPN22</i> Autoimmune Risk Variant LYP-620W Fails to Restrain Human CD4+ T Cell Activation. Journal of Immunology, 2021, 207, 849-859.	0.8	7
8	Protecting Stem Cell Derived Pancreatic Beta-Like Cells From Diabetogenic T Cell Recognition. Frontiers in Endocrinology, 2021, 12, 707881.	3.5	24
9	ENTPD3 Marks Mature Stem Cellâ€"Derived Î²-Cells Formed by Self-Aggregation In Vitro. Diabetes, 2021, 70, 2554-2567.	0.6	20
10	Human islet T cells are highly reactive to preproinsulin in type 1 diabetes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	42
11	Use of Induced Pluripotent Stem Cells to Build Isogenic Systems and Investigate Type 1 Diabetes. Frontiers in Endocrinology, 2021, 12, 737276.	3.5	8
12	Comparing Beta Cell Preservation Across Clinical Trials in Recent-Onset Type 1 Diabetes. Diabetes Technology and Therapeutics, 2020, 22, 948-953.	4.4	41
13	Branched chain amino acids and carbohydrate restriction exacerbate ketogenesis and hepatic mitochondrial oxidative dysfunction during NAFLD. FASEB Journal, 2020, 34, 14832-14849.	0.5	19
14	Disruption of hepatic one-carbon metabolism impairs mitochondrial function and enhances macrophage activity in methionineâ€"choline-deficient mice. Journal of Nutritional Biochemistry, 2020, 81, 108381.	4.2	3
15	NKG2D Signaling Within the Pancreatic Islets Reduces NOD Diabetes and Increases Protective Central Memory CD8+ T-Cell Numbers. Diabetes, 2020, 69, 1749-1762.	0.6	4
16	Innate inflammation drives NK cell activation to impair Treg activity. Journal of Autoimmunity, 2020, 108, 102417.	6.5	36
17	Lipid mediators and biomarkers associated with type 1 diabetes development. JCI Insight, 2020, 5, .	5.0	15
18	Position Î²57 of I-A ^{g7} controls early anti-insulin responses in NOD mice, linking an MHC susceptibility allele to type 1 diabetes onset. Science Immunology, 2019, 4, .	11.9	37

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19	Neutrophil Cytosolic Factor 1 in Dendritic Cells Promotes Autoreactive CD8+ T Cell Activation via Cross-Presentation in Type 1 Diabetes. Frontiers in Immunology, 2019, 10, 952.	4.8	14
20	Boosting to Amplify Signal with Isobaric Labeling (BASIL) Strategy for Comprehensive Quantitative Phosphoproteomic Characterization of Small Populations of Cells. Analytical Chemistry, 2019, 91, 5794-5801.	6.5	86
21	Nanodroplet processing platform for deep and quantitative proteome profiling of 10â€“100 mammalian cells. Nature Communications, 2018, 9, 882.	12.8	384
22	Abnormal islet sphingolipid metabolism in type 1 diabetes. Diabetologia, 2018, 61, 1650-1661.	6.3	56
23	Loss of B-Cell Anergy in Type 1 Diabetes Is Associated With High-Risk HLA and Non-HLA Disease Susceptibility Alleles. Diabetes, 2018, 67, 697-703.	0.6	24
24	Mitochondrial Reactive Oxygen Species and Type 1 Diabetes. Antioxidants and Redox Signaling, 2018, 29, 1361-1372.	5.4	70
25	Application of a Genetic Risk Score to Racially Diverse Type 1 Diabetes Populations Demonstrates the Need for Diversity in Risk-Modeling. Scientific Reports, 2018, 8, 4529.	3.3	59
26	Sixteen diverse laboratory mouse reference genomes define strain-specific haplotypes and novel functional loci. Nature Genetics, 2018, 50, 1574-1583.	21.4	169
27	The Role of NOD Mice in Type 1 Diabetes Research: Lessons from the Past and Recommendations for the Future. Frontiers in Endocrinology, 2018, 9, 51.	3.5	99
28	Protective Role of Myeloid Cells Expressing a G-CSF Receptor Polymorphism in an Induced Model of Lupus. Frontiers in Immunology, 2018, 9, 1053.	4.8	4
29	Nanowell-mediated two-dimensional liquid chromatography enables deep proteome profiling of <1000 mammalian cells. Chemical Science, 2018, 9, 6944-6951.	7.4	33
30	Mitochondrial ATP transporter depletion protects mice against liver steatosis and insulin resistance. Nature Communications, 2017, 8, 14477.	12.8	55
31	Interferon-Î³ Limits Diabetogenic CD8+ T-Cell Effector Responses in Type 1 Diabetes. Diabetes, 2017, 66, 710-721.	0.6	26
32	Islet-Derived CD4 T Cells Targeting Proinsulin in Human Autoimmune Diabetes. Diabetes, 2017, 66, 722-734.	0.6	154
33	Type 1 Interferons Potentiate Human CD8+ T-Cell Cytotoxicity Through a STAT4- and Granzyme Bâ€“Dependent Pathway. Diabetes, 2017, 66, 3061-3071.	0.6	56
34	T cells display mitochondria hyperpolarization in human type 1 diabetes. Scientific Reports, 2017, 7, 10835.	3.3	34
35	The Type 1 Diabetesâ€“Resistance Locus <i>Idd22</i> Controls Trafficking of Autoreactive CTLs into the Pancreatic Islets of NOD Mice. Journal of Immunology, 2017, 199, 3991-4000.	0.8	11
36	Human Pancreatic Cancer Cells Induce a MyD88-Dependent Stromal Response to Promote a Tumor-Tolerant Immune Microenvironment. Cancer Research, 2017, 77, 672-683.	0.9	24

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37	Type I Interferon Is a Catastrophic Feature of the Diabetic Islet Microenvironment. Frontiers in Endocrinology, 2017, 8, 232.	3.5	44
38	Avidity and Bystander Suppressive Capacity of Human Regulatory T Cells Expressing De Novo Autoreactive T-Cell Receptors in Type 1 Diabetes. Frontiers in Immunology, 2017, 8, 1313.	4.8	81
39	Antithymocyte Globulin Plus G-CSF Combination Therapy Leads to Sustained Immunomodulatory and Metabolic Effects in a Subset of Responders With Established Type 1 Diabetes. Diabetes, 2016, 65, 3765-3775.	0.6	62
40	Islet cell hyperexpression of HLA class I antigens: a defining feature in type 1 diabetes. Diabetologia, 2016, 59, 2448-2458.	6.3	214
41	Pancreas-enriched miRNAs are altered in the circulation of subjects with diabetes: a pilot cross-sectional study. Scientific Reports, 2016, 6, 31479.	3.3	134
42	Analysis of self-antigen specificity of islet-infiltrating T cells from human donors with type 1 diabetes. Nature Medicine, 2016, 22, 1482-1487.	30.7	232
43	Genetic risk analysis of a patient with fulminant autoimmune type 1 diabetes mellitus secondary to combination ipilimumab and nivolumab immunotherapy. , 2016, 4, 89.		81
44	Respiration and substrate transport rates as well as reactive oxygen species production distinguish mitochondria from brain and liver. BMC Biochemistry, 2015, 16, 22.	4.4	19
45	Liquid Chromatography-Mass Spectrometry Metabolic and Lipidomic Sample Preparation Workflow for Suspension-Cultured Mammalian Cells using Jurkat T lymphocyte Cells. Journal of Proteomics and Bioinformatics, 2015, 08, 126-132.	0.4	28
46	How the Location of Superoxide Generation Influences the Î²-Cell Response to Nitric Oxide. Journal of Biological Chemistry, 2015, 290, 7952-7960.	3.4	19
47	Combination Therapy Reverses Hyperglycemia in NOD Mice With Established Type 1 Diabetes. Diabetes, 2015, 64, 3873-3884.	0.6	22
48	Association of the mt-ND2 5178A/C polymorphism with Parkinsonâ€™s disease. Neuroscience Letters, 2015, 587, 98-101.	2.1	11
49	Mechanisms of Tumor Necrosis Factor Î± Antagonistâ€“Induced Lupus in a Murine Model. Arthritis and Rheumatology, 2015, 67, 225-237.	5.6	19
50	Reply to Gurgul-Convey and Lenzen: Cytokines, Nitric Oxide, and Î²-Cells. Journal of Biological Chemistry, 2015, 290, 10571.	3.4	1
51	Acute Versus Progressive Onset of Diabetes in NOD Mice: Potential Implications for Therapeutic Interventions in Type 1 Diabetes. Diabetes, 2015, 64, 3885-3890.	0.6	42
52	Repurposed biological scaffolds: kidney to pancreas. Organogenesis, 2015, 11, 47-57.	1.2	22
53	Distinct differences in the responses of the human pancreatic Î²-cell line EndoC-Î²H1 and human islets to proinflammatory cytokines. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2015, 309, R525-R534.	1.8	39
54	Loss of NOX-Derived Superoxide Exacerbates Diabetogenic CD4 T-Cell Effector Responses in Type 1 Diabetes. Diabetes, 2015, 64, 4171-4183.	0.6	18

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55	Anti-thymocyte globulin/G-CSF treatment preserves Î² cell function in patients with established type 1 diabetes. Journal of Clinical Investigation, 2015, 125, 448-455.	8.2	140
56	Metabolic Abnormalities in the Pathogenesis of Type 1 Diabetes. Current Diabetes Reports, 2014, 14, 519.	4.2	6
57	In search of a surrogate: engineering human beta cell lines for therapy. Trends in Endocrinology and Metabolism, 2014, 25, 378-380.	7.1	10
58	Use of Chemical Probes to Detect Mitochondrial ROS by Flow Cytometry and Spectrofluorometry. Methods in Enzymology, 2014, 542, 223-241.	1.0	7
59	Do Î²-Cells Generate Peroxynitrite in Response to Cytokine Treatment?. Journal of Biological Chemistry, 2013, 288, 36567-36578.	3.4	23
60	Pleiotropic IFN-Dependent and -Independent Effects of IRF5 on the Pathogenesis of Experimental Lupus. Journal of Immunology, 2012, 188, 4113-4121.	0.8	53
61	Immuneâ€mediated Î²â€cell death in type 1 diabetes: lessons from human Î²â€cell lines. European Journal of Clinical Investigation, 2012, 42, 1244-1251.	3.4	25
62	Inherited Â-Cell Dysfunction in Lean Individuals With Type 2 Diabetes. Diabetes, 2012, 61, 1659-1660.	0.6	11
63	Oxidative Stress and Beta Cell Dysfunction. Methods in Molecular Biology, 2012, 900, 347-362.	0.9	23
64	The use of leptin as treatment for type 1 diabetes mellitus: counterpoint. Pediatric Diabetes, 2012, 13, 74-76.	2.9	2
65	Comparative Genetics: Synergizing Human and NOD Mouse Studies for Identifying Genetic Causation of Type 1 Diabetes. Review of Diabetic Studies, 2012, 9, 169-187.	1.3	32
66	<i>mt-Nd2a</i>Modifies Resistance Against Autoimmune Type 1 Diabetes in NOD Mice at the Level of the Pancreatic Î²-Cell. Diabetes, 2011, 60, 355-359.	0.6	28
67	Development of diabetes in lean Ncb5or-null mice is associated with manifestations of endoplasmic reticulum and oxidative stress in beta cells. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2011, 1812, 1532-1541.	3.8	17
68	Increased superoxide accumulation in pyruvate dehydrogenase complex deficient fibroblasts. Molecular Genetics and Metabolism, 2011, 104, 255-260.	1.1	24
69	Role of the Mitochondria in Immune-Mediated Apoptotic Death of the Human Pancreatic Î² Cell Line Î²Lox5. PLoS ONE, 2011, 6, e20617.	2.5	24
70	Methods to Assess Beta Cell Death Mediated by Cytotoxic T Lymphocytes. Journal of Visualized Experiments, 2011, , .	0.3	11
71	Role of genetics in resistance to type 1 diabetes. Diabetes/Metabolism Research and Reviews, 2011, 27, 849-853.	4.0	7
72	Progressive Erosion of Î²-Cell Function Precedes the Onset of Hyperglycemia in the NOD Mouse Model of Type 1 Diabetes. Diabetes, 2011, 60, 2086-2091.	0.6	64

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73	Critical Role for CXC Ligand 10/CXC Receptor 3 Signaling in the Murine Neonatal Response to Sepsis. Infection and Immunity, 2011, 79, 2746-2754.	2.2	40
74	Superoxide Production by Macrophages and T Cells Is Critical for the Induction of Autoreactivity and Type 1 Diabetes. Diabetes, 2011, 60, 2144-2151.	0.6	85
75	Neutrophil Mobilization from the Bone Marrow during Polymicrobial Sepsis Is Dependent on CXCL12 Signaling. Journal of Immunology, 2011, 187, 911-918.	0.8	117
76	Sepsis Induces Early Alterations in Innate Immunity That Impact Mortality to Secondary Infection. Journal of Immunology, 2011, 186, 195-202.	0.8	137
77	NADPH Oxidase Deficiency Regulates Th Lineage Commitment and Modulates Autoimmunity. Journal of Immunology, 2010, 185, 5247-5258.	0.8	122
78	Use of Nonobese Diabetic Mice to Understand Human Type 1 Diabetes. Endocrinology and Metabolism Clinics of North America, 2010, 39, 541-561.	3.2	66
79	Role of SREBP-1 in the Development of Parasympathetic Dysfunction in the Hearts of Type 1 Diabetic Akita Mice. Circulation Research, 2009, 105, 287-294.	4.5	26
80	Evaluating Protocols for Embryonic Stem Cell Differentiation into Insulin-Secreting Î²-Cells Using Insulin II-GFP as a Specific and Noninvasive Reporter. Cloning and Stem Cells, 2009, 11, 245-257.	2.6	9
81	Immune Depletion With Cellular Mobilization Imparts Immunoregulation and Reverses Autoimmune Diabetes in Nonobese Diabetic Mice. Diabetes, 2009, 58, 2277-2284.	0.6	68
82	MerTK regulates thymic selection of autoreactive T cells. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4810-4815.	7.1	33
83	Chapter 24 Quantification, Localization, and Tissue Specificities of Mouse Mitochondrial Reactive Oxygen Species Production. Methods in Enzymology, 2009, 456, 439-457.	1.0	15
84	Role of Increased ROS Dissipation in Prevention of T1D. Annals of the New York Academy of Sciences, 2008, 1150, 157-166.	3.8	39
85	Commonalities of genetic resistance to spontaneous autoimmune and free radical-mediated diabetes. Free Radical Biology and Medicine, 2008, 45, 1263-1270.	2.9	18
86	MerTK is required for apoptotic cellâ€“induced T cell tolerance. Journal of Experimental Medicine, 2008, 205, 219-232.	8.5	127
87	mt-Nd2 Suppresses Reactive Oxygen Species Production by Mitochondrial Complexes I and III. Journal of Biological Chemistry, 2008, 283, 10690-10697.	3.4	47
88	Nuclear and Mitochondrial Interaction Involving mt-Nd2 Leads to Increased Mitochondrial Reactive Oxygen Species Production*. Journal of Biological Chemistry, 2007, 282, 5171-5179.	3.4	57
89	Apoptotic cells induce Mer tyrosine kinaseâ€“dependent blockade of NF-Î°B activation in dendritic cells. Blood, 2007, 109, 653-660.	1.4	187
90	HLA-A*0201-Restricted T Cells from Humanized NOD Mice Recognize Autoantigens of Potential Clinical Relevance to Type 1 Diabetes. Journal of Immunology, 2006, 176, 3257-3265.	0.8	114

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91	Modulatory Role of DR4- to DQ8-restricted CD4 T-Cell Responses and Type 1 Diabetes Susceptibility. Diabetes, 2006, 55, 3455-3462.	0.6	14
92	Utility of murine models for the study of spontaneous autoimmune type 1 diabetes. Pediatric Diabetes, 2005, 6, 165-177.	2.9	37
93	Major Histocompatibility Complex-Linked Diabetes Susceptibility in NOD/Lt Mice: Subcongenic Analysis Localizes a Component of Idd16 at the H2-D End of the Diabetogenic H2g7 Complex. Diabetes, 2005, 54, 1603-1606.	0.6	33
94	Proteasome Inhibition Alters Glucose-stimulated (Pro)insulin Secretion and Turnover in Pancreatic Î²-Cells. Journal of Biological Chemistry, 2005, 280, 15727-15734.	3.4	64
95	Mechanisms Underlying Resistance of Pancreatic Islets from ALR/Lt Mice to Cytokine-Induced Destruction. Journal of Immunology, 2005, 175, 1248-1256.	0.8	51
96	ALS/Lt: A New Type 2 Diabetes Mouse Model Associated With Low Free Radical Scavenging Potential. Diabetes, 2004, 53, S125-S129.	0.6	20
97	Generation, Maintenance, and Adoptive Transfer of Diabetogenic T-Cell Lines/Clones From the Nonobese Diabetic Mouse. , 2004, 102, 213-226.		3
98	Genetic analysis of resistance to Type-1 Diabetes in ALR/Lt mice, a NOD-related strain with defenses against autoimmune-mediated diabetogenic stress. Immunogenetics, 2003, 55, 491-496.	2.4	38
99	New mouse model to study islet transplantation in insulin-dependent diabetes mellitus. Transplantation, 2002, 73, 1333-1336.	1.0	75
100	Genetic control of neutrophil superoxide production in diabetes-resistant ALR/Lt mice. Free Radical Biology and Medicine, 2002, 32, 744-751.	2.9	27
101	Rodent models for the study of type 2 diabetes in children (juvenile diabesity). Pediatric Diabetes, 2002, 3, 163-173.	2.9	3
102	Role of vitamin A in mitochondrial gene expression. Diabetes Research and Clinical Practice, 2001, 54, S11-S27.	2.8	43
103	Attenuation of circadian rhythms of food intake and respiration in aging diabetes-prone BHE/Cdb rats. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2000, 279, R230-R238.	1.8	6
104	MHC characterization of ALR and ALS mice: respective similarities to the NOD and NON strains. Immunogenetics, 1999, 49, 722-726.	2.4	15
105	Constitutive differences in antioxidant defense status distinguish alloxan-resistant and alloxan-susceptible mice. Free Radical Biology and Medicine, 1999, 27, 449-455.	2.9	66
106	Noninsulin-Dependent Diabetes Mellitus as a Mitochondrial Genomic Disease. Experimental Biology and Medicine, 1998, 219, 97-108.	2.4	32
107	A point mutation in the mitochondrial DNA of diabetes-prone BHE/cdb rats.. FASEB Journal, 1995, 9, 1638-1642.	0.5	35