John C Chatham

List of Publications by Year
in descending order

108 papers	10,371 citations	44069 48 h-index	39675 94 g-index
108 all docs	108 docs citations	108 times ranked	18164 citing authors

#	Article	IF	Citations
1	Fine-tuning the cardiac O-GlcNAcylation regulatory enzymes governs the functional and structural phenotype of the diabetic heart. Cardiovascular Research, 2022, 118, 212-225.	3.8	47
2	Cardiomyocyte stromal interaction molecule 1 is a key regulator of Ca²⁺â€dependent kinase and phosphatase activity in the mouse heart. Physiological Reports, 2022, 10, e15177.	1.7	2
3	Acute inhibition of OGA sex-dependently alters the networks associated with bioenergetics, autophagy, and neurodegeneration. Molecular Brain, 2022, 15, 22.	2.6	5
4	STIM and Orai Mediated Regulation of Calcium Signaling in Age-Related Diseases. Frontiers in Aging, 2022, 3, .	2.6	8
5	Role of O-linked N-acetylglucosamine protein modification in cellular (patho)physiology. Physiological Reviews, 2021, 101, 427-493.	28.8	142
6	Role of O-linked N-acetylglucosamine (O-GlcNAc) modification of proteins in diabetic cardiovascular complications. Current Opinion in Pharmacology, 2021, 57, 1-12.	3.5	30
7	New Insights Into the Biology of Protein O-GlcNAcylation: Approaches and Observations. Frontiers in Aging, 2021, 1, .	2.6	17
8	Mitochondrial Morphology and Mitophagy in Heart Diseases: Qualitative and Quantitative Analyses Using Transmission Electron Microscopy. Frontiers in Aging, 2021, 2, .	2.6	13
9	Branched chain amino acids selectively promote cardiac growth at the end of the awake period. Journal of Molecular and Cellular Cardiology, 2021, 157, 31-44.	1.9	29
10	The Identification of a Novel Calcium-Dependent Link Between NAD+ and Glucose Deprivation-Induced Increases in Protein O-GlcNAcylation and ER Stress. Frontiers in Molecular Biosciences, 2021, 8, 780865.	3.5	3
11	Circadian Regulation of Cardiac Physiology: Rhythms That Keep the Heart Beating. Annual Review of Physiology, 2020, 82, 79-101.	13.1	33
12	Increased Glucose Availability Attenuates Myocardial Ketone Body Utilization. Journal of the American Heart Association, 2020, 9, e013039.	3.7	41
13	Defining the Progression of Diabetic Cardiomyopathy in a Mouse Model of Type 1 Diabetes. Frontiers in Physiology, 2020, 11, 124.	2.8	29
14	Regulation of cardiac O-GlcNAcylation: More than just nutrient availability. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2020, 1866, 165712.	3.8	19
15	First characterization of glucose flux through the hexosamine biosynthesis pathway (HBP) in ex vivo mouse heart. Journal of Biological Chemistry, 2020, 295, 2018-2033.	3.4	62
16	Reprint of: Role of O-linked N-acetylglucosamine (O-GlcNAc) modification of proteins in diabetic cardiovascular complications. Current Opinion in Pharmacology, 2020, 54, 209-220.	3.5	6
17	Acute increases inO-GlcNAc indirectly impair mitochondrial bioenergetics through dysregulation of LonP1-mediated mitochondrial protein complex turnover. American Journal of Physiology - Cell Physiology, 2019, 316, C862-C875.	4.6	16
18	O-GlcNAc stimulation: A new metabolic approach to treat septic shock. Scientific Reports, 2019, 9, 18751.	3.3	21

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19	Novel role of the ER/SR Ca²⁺sensor STIM1 in the regulation of cardiac metabolism. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1014-H1026.	3.2	19
20	O-GlcNAcylation of GLI transcription factors in hyperglycemic conditions augments Hedgehog activity. Laboratory Investigation, 2019, 99, 260-270.	3.7	17
21	Temporal partitioning of adaptive responses of the murine heart to fasting. Life Sciences, 2018, 197, 30-39.	4.3	16
22	O-GlcNAcylation and cardiovascular disease. Biochemical Society Transactions, 2017, 45, 545-553.	3.4	80
23	Insights into the role of maladaptive hexosamine biosynthesis and O-GlcNAcylation in development of diabetic cardiac complications. Pharmacological Research, 2017, 116, 45-56.	7.1	51
24	Genetic disruption of the cardiomyocyte circadian clock differentially influences insulin-mediated processes in the heart. Journal of Molecular and Cellular Cardiology, 2017, 110, 80-95.	1.9	52
25	Acute Increases in Protein O-GlcNAcylation Dampen Epileptiform Activity in Hippocampus. Journal of Neuroscience, 2017, 37, 8207-8215.	3.6	24
26	O-GlcNAcylation and neurodegeneration. Brain Research Bulletin, 2017, 133, 80-87.	3.0	96
27	O-GlcNAc regulation of autophagy and Î±-synuclein homeostasis; implications for Parkinsonâ€™s disease. Molecular Brain, 2017, 10, 32.	2.6	67
28	Biotinylation: a novel posttranslational modification linking cell autonomous circadian clocks with metabolism. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H1520-H1532.	3.2	28
29	Redox biology and the interface between bioenergetics, autophagy and circadian control of metabolism. Free Radical Biology and Medicine, 2016, 100, 94-107.	2.9	44
30	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	9.1	4,701
31	Altered myocardial metabolic adaptation to increased fatty acid availability in cardiomyocyte-specific CLOCK mutant mice. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2016, 1861, 1579-1595.	2.4	23
32	TXNIP regulates myocardial fatty acid oxidation via miR-33a signaling. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H64-H75.	3.2	24
33	Non-voltage-gated Ca2+ entry pathways in the heart: the untold STOrai?. Cardiovascular Research, 2015, 105, 233-234.	3.8	0
34	Regulation of autophagy by protein post-translational modification. Laboratory Investigation, 2015, 95, 14-25.	3.7	130
35	Protein O-GlcNAcylation and Cardiovascular (Patho)physiology. Journal of Biological Chemistry, 2014, 289, 34449-34456.	3.4	77
36	Cardiomyocyte-Specific BMAL1 Plays Critical Roles in Metabolism, Signaling, and Maintenance of Contractile Function of the Heart. Journal of Biological Rhythms, 2014, 29, 257-276.	2.6	165

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37	Activation of AKT by O-Linked N-Acetylglucosamine Induces Vascular Calcification in Diabetes Mellitus. Circulation Research, 2014, 114, 1094-1102.	4.5	123
38	O-GlcNAcylation of AMPA Receptor GluA2 Is Associated with a Novel Form of Long-Term Depression at Hippocampal Synapses. Journal of Neuroscience, 2014, 34, 10-21.	3.6	85
39	Stromal interaction molecule 1 is essential for normal cardiac homeostasis through modulation of ER and mitochondrial function. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 306, H1231-H1239.	3.2	53
40	Regulation of myocardial metabolism by the cardiomyocyte circadian clock. Journal of Molecular and Cellular Cardiology, 2013, 55, 139-146.	1.9	33
41	Post-translational protein modification by O-linked N-acetyl-glucosamine: Its role in mediating the adverse effects of diabetes on the heart. Life Sciences, 2013, 92, 621-627.	4.3	69
42	Cardiac O-GlcNAcylation blunts autophagic signaling in the diabetic heart. Life Sciences, 2013, 92, 648-656.	4.3	93
43	Metabolic effects of glutamine on the heart: Anaplerosis versus the hexosamine biosynthetic pathway. Journal of Molecular and Cellular Cardiology, 2013, 55, 92-100.	1.9	52
44	The role of STIM1 and store operated calcium entry in glucoseâ€induced insulin secretion. FASEB Journal, 2013, 27, 701.7.	0.5	1
45	Oâ€GlcNAcylation Modulates Hippocampal Plasticity and Alters Hippocampal Dependent Learning and Memory. FASEB Journal, 2013, 27, 934.1.	0.5	0
46	AcuteO-GlcNAcylation prevents inflammation-induced vascular dysfunction. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 303, H513-H522.	3.2	62
47	Glucose Deprivation-induced Increase in Protein O-GlcNAcylation in Cardiomyocytes Is Calcium-dependent. Journal of Biological Chemistry, 2012, 287, 34419-34431.	3.4	51
48	Modification of STIM1 by O-linked N-Acetylglucosamine (O-GlcNAc) Attenuates Store-operated Calcium Entry in Neonatal Cardiomyocytes. Journal of Biological Chemistry, 2012, 287, 39094-39106.	3.4	80
49	Calcium Channel Blockers Act through Nuclear Factor Y to Control Transcription of Key Cardiac Genes. Molecular Pharmacology, 2012, 82, 541-549.	2.3	19
50	Protein O-linked Î²-N-acetylglucosamine: A novel effector of cardiomyocyte metabolism and function. Journal of Molecular and Cellular Cardiology, 2012, 52, 538-549.	1.9	102
51	Oâ€GlcNAcylation of the AMPA receptor GluA2 Subunit May Contribute to LTD at Hippocampal CA3â€CA1 Synapses. FASEB Journal, 2012, 26, 902.2.	0.5	0
52	Acute Regulation of Cardiac Metabolism by the Hexosamine Biosynthesis Pathway and Protein O-GlcNAcylation. PLoS ONE, 2011, 6, e18417.	2.5	52
53	O-GlcNAc Modification of NFÎºB p65 Inhibits TNF-Î±-Induced Inflammatory Mediator Expression in Rat Aortic Smooth Muscle Cells. PLoS ONE, 2011, 6, e24021.	2.5	92
54	O-GlcNAcylation, Novel Post-Translational Modification Linking Myocardial Metabolism and Cardiomyocyte Circadian Clock. Journal of Biological Chemistry, 2011, 286, 44606-44619.	3.4	117

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55	Activation of the hexosamine biosynthesis pathway and protein O-GlcNAcylation modulate hypertrophic and cell signaling pathways in cardiomyocytes from diabetic mice. Amino Acids, 2011, 40, 819-828.	2.7	92
56	Cardiac anaplerosis in health and disease: food for thought. Cardiovascular Research, 2011, 90, 210-219.	3.8	80
57	Glycopeptide-specific monoclonal antibodies suggest new roles for O-GlcNAc. Nature Chemical Biology, 2010, 6, 338-343.	8.0	163
58	Protein O-GlcNAcylation: A Critical Regulator of the Cellular Response to Stress. Current Signal Transduction Therapy, 2010, 5, 49-59.	0.5	48
59	Increased O-linked Î²-N-acetylglucosamine levels on proteins improves survival, reduces inflammation and organ damage 24 hours after trauma-hemorrhage in rats. Critical Care Medicine, 2010, 38, 562-571.	0.9	41
60	Inhibition of O-GlcNAcase in perfused rat hearts by NAG-thiazolines at the time of reperfusion is cardioprotective in an O-GlcNAc-dependent manner. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 299, H1715-H1727.	3.2	77
61	The role of protein O-linked Î²-N-acetylglucosamine in mediating cardiac stress responses. Biochimica Et Biophysica Acta - General Subjects, 2010, 1800, 57-66.	2.4	60
62	Chronic ingestion of a western diet alters Oâ€linkedâ€Î²â€Nâ€acetylglucosamine (Oâ€GlcNAc) protein modification in the heart. FASEB Journal, 2010, 24, 787.9.	0.5	0
63	O â€GlcNAc agonist treatment attenuates early inflammatory response in the lung after cecal puncture and ligation induced sepsis in rats. FASEB Journal, 2010, 24, 788.1.	0.5	0
64	Glucosamine improves cardiac function following trauma-hemorrhage by increased proteinO-GlcNAcylation and attenuation of NF-ÎºB signaling. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 296, H515-H523.	3.2	127
65	ProteinO-GlcNAcylation: a new signaling paradigm for the cardiovascular system. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 296, H13-H28.	3.2	129
66	Evidence of O-linked N-acetylglucosamine in diabetic nephropathy. Life Sciences, 2009, 84, 389-393.	4.3	43
67	Importance of the bioenergetic reserve capacity in response to cardiomyocyte stress induced by 4-hydroxynonenal. Biochemical Journal, 2009, 424, 99-107.	3.7	246
68	Abnormal autophagic response contributes to cardiac dysfunction in diabetic rat hearts following pressure overload. FASEB Journal, 2009, 23, 989.3.	0.5	0
69	Consumption of a western diet and the pancreatic Oâ€GlcNAc response. FASEB Journal, 2009, 23, 987.1.	0.5	0
70	Aging leads to increased levels of protein O-linked N-acetylglucosamine in heart, aorta, brain and skeletal muscle in Brown-Norway rats. Biogerontology, 2008, 9, 139.	3.9	76
71	Glucosamine protects neonatal cardiomyocytes from ischemia-reperfusion injury via increased protein O-GlcNAc and increased mitochondrial Bcl-2. American Journal of Physiology - Cell Physiology, 2008, 294, C1509-C1520.	4.6	137
72	Increased proteinO-GlcNAc modification inhibits inflammatory and neointimal responses to acute endoluminal arterial injury. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 295, H335-H342.	3.2	90

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73	HEXOSAMINE BIOSYNTHESIS AND PROTEIN O-GLYCOSYLATION. Shock, 2008, 29, 431-440.	2.1	86
74	Imaging of Cardiotoxicity. Molecular Imaging, 2008, 7, 7290.2008.00019.	1.4	1
75	Pressure overload exacerbates insulin resistance in obesity and type 2 diabetes. FASEB Journal, 2008, 22, 1226.35.	0.5	0
76	Short term consumption of diets high in fat and/or sugar in young animals increase cardiovascular risk factors prior to the onset of obesity. FASEB Journal, 2008, 22, 1226.34.	0.5	0
77	Oâ€Glycosylation is Increased in the Tubuli and Glomeruli of Patients with Diabetic Nephropathy.. FASEB Journal, 2008, 22, 160-160.	0.5	0
78	Role of protein O-linked N-acetyl-glucosamine in mediating cell function and survival in the cardiovascular system. Cardiovascular Research, 2007, 73, 288-297.	3.8	139
79	Glucosamine cardioprotection in perfused rat hearts associated with increasedO-linkedN-acetylglucosamine protein modification and altered p38 activation. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H2227-H2236.	3.2	103
80	Glucosamine protects neonatal cardiomyocytes from ischemia-reperfusion injury via increased protein-associated O-GlcNAc. American Journal of Physiology - Cell Physiology, 2007, 292, C178-C187.	4.6	151
81	Impact of Type 2 diabetes and aging on cardiomyocyte function and O-linked N-acetylglucosamine levels in the heart. American Journal of Physiology - Cell Physiology, 2007, 292, C1370-C1378.	4.6	116
82	Increased O-GlcNAc levels during reperfusion lead to improved functional recovery and reduced calpain proteolysis. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H1391-H1399.	3.2	103
83	THE PROTECTIVE EFFECTS OF PUGNAC ON CARDIAC FUNCTION AFTER TRAUMA-HEMORRHAGE ARE MEDIATED VIA INCREASED PROTEIN O-GlcNAc LEVELS. Shock, 2007, 27, 402-408.	2.1	74
84	GLUCOSAMINE ADMINISTRATION IMPROVES SURVIVAL RATE AFTER SEVERE HEMORRHAGIC SHOCK COMBINED WITH TRAUMA IN RATS. Shock, 2007, 28, 345-352.	2.1	34
85	Glutamine-induced protection of isolated rat heart from ischemia/reperfusion injury is mediated via the hexosamine biosynthesis pathway and increased protein O-GlcNAc levels. Journal of Molecular and Cellular Cardiology, 2007, 42, 177-185.	1.9	125
86	The Protective Effect of Glucosamine on Cardiac Function Following Trauma Hemorrhage: Downregulation of cardiac NFâ€ºB signaling. FASEB Journal, 2007, 21, A1278.	0.5	1
87	Glucosamine Protects Neonatal Cardiomyocytes from Ischemiaâ€Reperfusion Injury through Translocation of BCL2 Family Proteins. FASEB Journal, 2007, 21, A866.	0.5	2
88	Increased hexosamine biosynthesis and protein O-GlcNAc levels associated with myocardial protection against calcium paradox and ischemia. Journal of Molecular and Cellular Cardiology, 2006, 40, 303-312.	1.9	154
89	GLUCOSAMINE ADMINISTRATION DURING RESUSCITATION IMPROVES ORGAN FUNCTION AFTER TRAUMA HEMORRHAGE. Shock, 2006, 25, 600-607.	2.1	68
90	Glucosamine inhibits angiotensin II-induced cytoplasmic Ca2+ elevation in neonatal cardiomyocytes via protein-associated O-linked N-acetylglucosamine. American Journal of Physiology - Cell Physiology, 2006, 290, C57-C65.	4.6	91

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91	Increasing protein Oâ€GlcNAc levels by inhibition of Oâ€GlcNAcase improves cardiac function following trauma hemorrhage and resuscitation in rat. FASEB Journal, 2006, 20, A1471.	0.5	0
92	Cardiovascular dysfunction is caused by preâ€existing hydronephrosis in young lean, obese and diabetic Zucker rats. FASEB Journal, 2006, 20, A298.	0.5	1
93	Glutamine protects isolated rat heart from ischemia/reperfusion injury through the hexosamine biosynthesis pathway. FASEB Journal, 2006, 20, .	0.5	0
94	Impact of altered substrate utilization on cardiac function in isolated hearts from Zucker diabetic fatty rats. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H2102-H2110.	3.2	106
95	Hexosamine Pathway Is Responsible for Inhibition by Diabetes of Phenylephrine-Induced Inotropy. Diabetes, 2004, 53, 1074-1081.	0.6	53
96	Impact of low-flow ischemia on substrate oxidation and glycolysis in the isolated perfused rat heart. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H351-H362.	3.2	43
97	Lactate isotopomer analysis by1H NMR spectroscopy: Consideration of long-range nuclear spin-spin interactions. Magnetic Resonance in Medicine, 2004, 51, 1279-1282.	3.0	28
98	A critical perspective of the use of 13C-isotopomer analysis by GCMS and NMR as applied to cardiac metabolism. Metabolic Engineering, 2004, 6, 44-58.	7.0	70
99	A comparison between NMR and GCMS 13C-isotopomer analysis in cardiac metabolism. Molecular and Cellular Biochemistry, 2003, 249, 105-112.	3.1	21
100	A comparison between NMR and GCMS 13C-isotopomer analysis in cardiac metabolism. Molecular and Cellular Biochemistry, 2003, 249, 105-12.	3.1	6
101	IGF-I promotes a shift in metabolic flux in vascular smooth muscle cells. American Journal of Physiology - Endocrinology and Metabolism, 2002, 283, E465-E471.	3.5	21
102	Impact of 1 wk of diabetes on the regulation of myocardial carbohydrate and fatty acid oxidation. American Journal of Physiology - Endocrinology and Metabolism, 1999, 277, E342-E351.	3.5	56
103	Metabolic Effects of Chemotherapy on the Heart. , 1993, , 127-142.		1
104	Altered glucose metabolism in adriamycin-induced heart failure. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 1992, 1138, 1-5.	3.8	11
105	31P and 13C NMR Studies of Acute and Chronic Adriamycin Cardiotoxicity. , 1990, , 1-22.		2
106	The metabolic consequences of hydroperoxide perfusion on the isolated rat heart. FEBS Journal, 1989, 184, 657-662.	0.2	47
107	Inhibition of glucose phosphorylation by fatty acids in the perfused rat heart. FEBS Letters, 1988, 238, 445-449.	2.8	19
108	Studies of the protective effect of ribose in myocardial ischaemia by using 31P-nuclearmagnetic-resonance spectroscopy. Biochemical Society Transactions, 1985, 13, 885-886.	3.4	8