

# John C Chatham

## List of Publications by Year in descending order

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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	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). <i>Autophagy</i> , 2016, 12, 1-222.	9.1	4,701
2	Importance of the bioenergetic reserve capacity in response to cardiomyocyte stress induced by 4-hydroxynonenal. <i>Biochemical Journal</i> , 2009, 424, 99-107.	3.7	246
3	Cardiomyocyte-Specific BMAL1 Plays Critical Roles in Metabolism, Signaling, and Maintenance of Contractile Function of the Heart. <i>Journal of Biological Rhythms</i> , 2014, 29, 257-276.	2.6	165
4	Glycopeptide-specific monoclonal antibodies suggest new roles for O-GlcNAc. <i>Nature Chemical Biology</i> , 2010, 6, 338-343.	8.0	163
5	Increased hexosamine biosynthesis and protein O-GlcNAc levels associated with myocardial protection against calcium paradox and ischemia. <i>Journal of Molecular and Cellular Cardiology</i> , 2006, 40, 303-312.	1.9	154
6	Glucosamine protects neonatal cardiomyocytes from ischemia-reperfusion injury via increased protein-associated O-GlcNAc. <i>American Journal of Physiology - Cell Physiology</i> , 2007, 292, C178-C187.	4.6	151
7	Role of O-linked N-acetylglucosamine protein modification in cellular (patho)physiology. <i>Physiological Reviews</i> , 2021, 101, 427-493.	28.8	142
8	Role of protein O-linked N-acetyl-glucosamine in mediating cell function and survival in the cardiovascular system. <i>Cardiovascular Research</i> , 2007, 73, 288-297.	3.8	139
9	Glucosamine protects neonatal cardiomyocytes from ischemia-reperfusion injury via increased protein O-GlcNAc and increased mitochondrial Bcl-2. <i>American Journal of Physiology - Cell Physiology</i> , 2008, 294, C1509-C1520.	4.6	137
10	Regulation of autophagy by protein post-translational modification. <i>Laboratory Investigation</i> , 2015, 95, 14-25.	3.7	130
11	Protein O-GlcNAcylation: a new signaling paradigm for the cardiovascular system. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2009, 296, H13-H28.	3.2	129
12	Glucosamine improves cardiac function following trauma-hemorrhage by increased protein O-GlcNAcylation and attenuation of NF- $\kappa$ B signaling. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2009, 296, H515-H523.	3.2	127
13	Glutamine-induced protection of isolated rat heart from ischemia/reperfusion injury is mediated via the hexosamine biosynthesis pathway and increased protein O-GlcNAc levels. <i>Journal of Molecular and Cellular Cardiology</i> , 2007, 42, 177-185.	1.9	125
14	Activation of AKT by O-Linked N-Acetylglucosamine Induces Vascular Calcification in Diabetes Mellitus. <i>Circulation Research</i> , 2014, 114, 1094-1102.	4.5	123
15	O-GlcNAcylation, Novel Post-Translational Modification Linking Myocardial Metabolism and Cardiomyocyte Circadian Clock. <i>Journal of Biological Chemistry</i> , 2011, 286, 44606-44619.	3.4	117
16	Impact of Type 2 diabetes and aging on cardiomyocyte function and O-linked N-acetylglucosamine levels in the heart. <i>American Journal of Physiology - Cell Physiology</i> , 2007, 292, C1370-C1378.	4.6	116
17	Impact of altered substrate utilization on cardiac function in isolated hearts from Zucker diabetic fatty rats. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005, 288, H2102-H2110.	3.2	106
18	Glucosamine cardioprotection in perfused rat hearts associated with increased O-linked N-acetylglucosamine protein modification and altered p38 activation. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 292, H2227-H2236.	3.2	103

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19	Increased O-GlcNAc levels during reperfusion lead to improved functional recovery and reduced calpain proteolysis. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 293, H1391-H1399.	3.2	103
20	Protein O-linked $\beta$ -N-acetylglucosamine: A novel effector of cardiomyocyte metabolism and function. <i>Journal of Molecular and Cellular Cardiology</i> , 2012, 52, 538-549.	1.9	102
21	O-GlcNAcylation and neurodegeneration. <i>Brain Research Bulletin</i> , 2017, 133, 80-87.	3.0	96
22	Cardiac O-GlcNAcylation blunts autophagic signaling in the diabetic heart. <i>Life Sciences</i> , 2013, 92, 648-656.	4.3	93
23	O-GlcNAc Modification of NF $\kappa$ B p65 Inhibits TNF $\alpha$ -Induced Inflammatory Mediator Expression in Rat Aortic Smooth Muscle Cells. <i>PLoS ONE</i> , 2011, 6, e24021.	2.5	92
24	Activation of the hexosamine biosynthesis pathway and protein O-GlcNAcylation modulate hypertrophic and cell signaling pathways in cardiomyocytes from diabetic mice. <i>Amino Acids</i> , 2011, 40, 819-828.	2.7	92
25	Glucosamine inhibits angiotensin II-induced cytoplasmic Ca <sup>2+</sup> elevation in neonatal cardiomyocytes via protein-associated O-linked N-acetylglucosamine. <i>American Journal of Physiology - Cell Physiology</i> , 2006, 290, C57-C65.	4.6	91
26	Increased protein O-GlcNAc modification inhibits inflammatory and neointimal responses to acute endoluminal arterial injury. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2008, 295, H335-H342.	3.2	90
27	HEXOSAMINE BIOSYNTHESIS AND PROTEIN O-GLYCOSYLATION. <i>Shock</i> , 2008, 29, 431-440.	2.1	86
28	O-GlcNAcylation of AMPA Receptor GluA2 Is Associated with a Novel Form of Long-Term Depression at Hippocampal Synapses. <i>Journal of Neuroscience</i> , 2014, 34, 10-21.	3.6	85
29	Cardiac anaplerosis in health and disease: food for thought. <i>Cardiovascular Research</i> , 2011, 90, 210-219.	3.8	80
30	Modification of STIM1 by O-linked N-Acetylglucosamine (O-GlcNAc) Attenuates Store-operated Calcium Entry in Neonatal Cardiomyocytes. <i>Journal of Biological Chemistry</i> , 2012, 287, 39094-39106.	3.4	80
31	O-GlcNAcylation and cardiovascular disease. <i>Biochemical Society Transactions</i> , 2017, 45, 545-553.	3.4	80
32	Inhibition of O-GlcNAcase in perfused rat hearts by NAG-thiazolines at the time of reperfusion is cardioprotective in an O-GlcNAc-dependent manner. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2010, 299, H1715-H1727.	3.2	77
33	Protein O-GlcNAcylation and Cardiovascular (Patho)physiology. <i>Journal of Biological Chemistry</i> , 2014, 289, 34449-34456.	3.4	77
34	Aging leads to increased levels of protein O-linked N-acetylglucosamine in heart, aorta, brain and skeletal muscle in Brown-Norway rats. <i>Biogerontology</i> , 2008, 9, 139.	3.9	76
35	THE PROTECTIVE EFFECTS OF PUGNAC ON CARDIAC FUNCTION AFTER TRAUMA-HEMORRHAGE ARE MEDIATED VIA INCREASED PROTEIN O-GlcNAc LEVELS. <i>Shock</i> , 2007, 27, 402-408.	2.1	74
36	A critical perspective of the use of <sup>13</sup> C-isotopomer analysis by GCMS and NMR as applied to cardiac metabolism. <i>Metabolic Engineering</i> , 2004, 6, 44-58.	7.0	70

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37	Post-translational protein modification by O-linked N-acetyl-glucosamine: Its role in mediating the adverse effects of diabetes on the heart. <i>Life Sciences</i> , 2013, 92, 621-627.	4.3	69
38	GLUCOSAMINE ADMINISTRATION DURING RESUSCITATION IMPROVES ORGAN FUNCTION AFTER TRAUMA HEMORRHAGE. <i>Shock</i> , 2006, 25, 600-607.	2.1	68
39	O-GlcNAc regulation of autophagy and $\alpha$ -synuclein homeostasis; implications for Parkinson's disease. <i>Molecular Brain</i> , 2017, 10, 32.	2.6	67
40	Acute O-GlcNAcylation prevents inflammation-induced vascular dysfunction. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012, 303, H513-H522.	3.2	62
41	First characterization of glucose flux through the hexosamine biosynthesis pathway (HBP) in ex vivo mouse heart. <i>Journal of Biological Chemistry</i> , 2020, 295, 2018-2033.	3.4	62
42	The role of protein O-linked $\alpha$ -N-acetylglucosamine in mediating cardiac stress responses. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2010, 1800, 57-66.	2.4	60
43	Impact of 1 wk of diabetes on the regulation of myocardial carbohydrate and fatty acid oxidation. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 1999, 277, E342-E351.	3.5	56
44	Hexosamine Pathway Is Responsible for Inhibition by Diabetes of Phenylephrine-Induced Inotropy. <i>Diabetes</i> , 2004, 53, 1074-1081.	0.6	53
45	Stromal interaction molecule 1 is essential for normal cardiac homeostasis through modulation of ER and mitochondrial function. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2014, 306, H1231-H1239.	3.2	53
46	Acute Regulation of Cardiac Metabolism by the Hexosamine Biosynthesis Pathway and Protein O-GlcNAcylation. <i>PLoS ONE</i> , 2011, 6, e18417.	2.5	52
47	Metabolic effects of glutamine on the heart: Anaplerosis versus the hexosamine biosynthetic pathway. <i>Journal of Molecular and Cellular Cardiology</i> , 2013, 55, 92-100.	1.9	52
48	Genetic disruption of the cardiomyocyte circadian clock differentially influences insulin-mediated processes in the heart. <i>Journal of Molecular and Cellular Cardiology</i> , 2017, 110, 80-95.	1.9	52
49	Glucose Deprivation-induced Increase in Protein O-GlcNAcylation in Cardiomyocytes Is Calcium-dependent. <i>Journal of Biological Chemistry</i> , 2012, 287, 34419-34431.	3.4	51
50	Insights into the role of maladaptive hexosamine biosynthesis and O-GlcNAcylation in development of diabetic cardiac complications. <i>Pharmacological Research</i> , 2017, 116, 45-56.	7.1	51
51	Protein O-GlcNAcylation: A Critical Regulator of the Cellular Response to Stress. <i>Current Signal Transduction Therapy</i> , 2010, 5, 49-59.	0.5	48
52	The metabolic consequences of hydroperoxide perfusion on the isolated rat heart. <i>FEBS Journal</i> , 1989, 184, 657-662.	0.2	47
53	Fine-tuning the cardiac O-GlcNAcylation regulatory enzymes governs the functional and structural phenotype of the diabetic heart. <i>Cardiovascular Research</i> , 2022, 118, 212-225.	3.8	47
54	Redox biology and the interface between bioenergetics, autophagy and circadian control of metabolism. <i>Free Radical Biology and Medicine</i> , 2016, 100, 94-107.	2.9	44

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55	Impact of low-flow ischemia on substrate oxidation and glycolysis in the isolated perfused rat heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2004, 287, H351-H362.	3.2	43
56	Evidence of O-linked N-acetylglucosamine in diabetic nephropathy. <i>Life Sciences</i> , 2009, 84, 389-393.	4.3	43
57	Increased O-linked $\beta$ -N-acetylglucosamine levels on proteins improves survival, reduces inflammation and organ damage 24 hours after trauma-hemorrhage in rats. <i>Critical Care Medicine</i> , 2010, 38, 562-571.	0.9	41
58	Increased Glucose Availability Attenuates Myocardial Ketone Body Utilization. <i>Journal of the American Heart Association</i> , 2020, 9, e013039.	3.7	41
59	GLUCOSAMINE ADMINISTRATION IMPROVES SURVIVAL RATE AFTER SEVERE HEMORRHAGIC SHOCK COMBINED WITH TRAUMA IN RATS. <i>Shock</i> , 2007, 28, 345-352.	2.1	34
60	Regulation of myocardial metabolism by the cardiomyocyte circadian clock. <i>Journal of Molecular and Cellular Cardiology</i> , 2013, 55, 139-146.	1.9	33
61	Circadian Regulation of Cardiac Physiology: Rhythms That Keep the Heart Beating. <i>Annual Review of Physiology</i> , 2020, 82, 79-101.	13.1	33
62	Role of O-linked N-acetylglucosamine (O-GlcNAc) modification of proteins in diabetic cardiovascular complications. <i>Current Opinion in Pharmacology</i> , 2021, 57, 1-12.	3.5	30
63	Defining the Progression of Diabetic Cardiomyopathy in a Mouse Model of Type 1 Diabetes. <i>Frontiers in Physiology</i> , 2020, 11, 124.	2.8	29
64	Branched chain amino acids selectively promote cardiac growth at the end of the awake period. <i>Journal of Molecular and Cellular Cardiology</i> , 2021, 157, 31-44.	1.9	29
65	Lactate isotopomer analysis by $^1\text{H}$ NMR spectroscopy: Consideration of long-range nuclear spin-spin interactions. <i>Magnetic Resonance in Medicine</i> , 2004, 51, 1279-1282.	3.0	28
66	Biotinylation: a novel posttranslational modification linking cell autonomous circadian clocks with metabolism. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 310, H1520-H1532.	3.2	28
67	Acute Increases in Protein O-GlcNAcylation Dampen Epileptiform Activity in Hippocampus. <i>Journal of Neuroscience</i> , 2017, 37, 8207-8215.	3.6	24
68	TXNIP regulates myocardial fatty acid oxidation via miR-33a signaling. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 311, H64-H75.	3.2	24
69	Altered myocardial metabolic adaptation to increased fatty acid availability in cardiomyocyte-specific CLOCK mutant mice. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2016, 1861, 1579-1595.	2.4	23
70	IGF-I promotes a shift in metabolic flux in vascular smooth muscle cells. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2002, 283, E465-E471.	3.5	21
71	A comparison between NMR and GCMS $^{13}\text{C}$ -isotopomer analysis in cardiac metabolism. <i>Molecular and Cellular Biochemistry</i> , 2003, 249, 105-112.	3.1	21
72	O-GlcNAc stimulation: A new metabolic approach to treat septic shock. <i>Scientific Reports</i> , 2019, 9, 18751.	3.3	21

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73	Inhibition of glucose phosphorylation by fatty acids in the perfused rat heart. FEBS Letters, 1988, 238, 445-449.	2.8	19
74	Calcium Channel Blockers Act through Nuclear Factor Y to Control Transcription of Key Cardiac Genes. Molecular Pharmacology, 2012, 82, 541-549.	2.3	19
75	Novel role of the ER/SR Ca <sup>2+</sup> sensor STIM1 in the regulation of cardiac metabolism. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1014-H1026.	3.2	19
76	Regulation of cardiac O-GlcNAcylation: More than just nutrient availability. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2020, 1866, 165712.	3.8	19
77	O-GlcNAcylation of GLI transcription factors in hyperglycemic conditions augments Hedgehog activity. Laboratory Investigation, 2019, 99, 260-270.	3.7	17
78	New Insights Into the Biology of Protein O-GlcNAcylation: Approaches and Observations. Frontiers in Aging, 2021, 1, .	2.6	17
79	Temporal partitioning of adaptive responses of the murine heart to fasting. Life Sciences, 2018, 197, 30-39.	4.3	16
80	Acute increases in O-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
81	Mitochondrial Morphology and Mitophagy in Heart Diseases: Qualitative and Quantitative Analyses Using Transmission Electron Microscopy. Frontiers in Aging, 2021, 2, .	2.6	13
82	Altered glucose metabolism in adriamycin-induced heart failure. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 1992, 1138, 1-5.	3.8	11
83	Studies of the protective effect of ribose in myocardial ischaemia by using 31P-nuclear magnetic resonance spectroscopy. Biochemical Society Transactions, 1985, 13, 885-886.	3.4	8
84	STIM and Orai Mediated Regulation of Calcium Signaling in Age-Related Diseases. Frontiers in Aging, 2022, 3, .	2.6	8
85	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
86	A comparison between NMR and GCMS 13C-isotopomer analysis in cardiac metabolism. Molecular and Cellular Biochemistry, 2003, 249, 105-12.	3.1	6
87	Acute inhibition of OGA sex-dependently alters the networks associated with bioenergetics, autophagy, and neurodegeneration. Molecular Brain, 2022, 15, 22.	2.6	5
88	The Identification of a Novel Calcium-Dependent Link Between NAD <sup>+</sup> and Glucose Deprivation-Induced Increases in Protein O-GlcNAcylation and ER Stress. Frontiers in Molecular Biosciences, 2021, 8, 780865.	3.5	3
89	31P and 13C NMR Studies of Acute and Chronic Adriamycin Cardiotoxicity. , 1990, , 1-22.		2
90	Glucosamine Protects Neonatal Cardiomyocytes from Ischemia-Induced Reperfusion Injury through Translocation of BCL2 Family Proteins. FASEB Journal, 2007, 21, A866.	0.5	2

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91	Cardiomyocyte stromal interaction molecule 1 is a key regulator of Ca <sup>2+</sup> -dependent kinase and phosphatase activity in the mouse heart. <i>Physiological Reports</i> , 2022, 10, e15177.	1.7	2
92	Imaging of Cardiotoxicity. <i>Molecular Imaging</i> , 2008, 7, 7290.2008.00019.	1.4	1
93	Metabolic Effects of Chemotherapy on the Heart. , 1993, , 127-142.		1
94	Cardiovascular dysfunction is caused by pre-existing hydronephrosis in young lean, obese and diabetic Zucker rats. <i>FASEB Journal</i> , 2006, 20, A298.	0.5	1
95	The Protective Effect of Glucosamine on Cardiac Function Following Trauma Hemorrhage: Downregulation of cardiac NF $\kappa$ B signaling. <i>FASEB Journal</i> , 2007, 21, A1278.	0.5	1
96	The role of STIM1 and store operated calcium entry in glucose-induced insulin secretion. <i>FASEB Journal</i> , 2013, 27, 701.7.	0.5	1
97	Non-voltage-gated Ca <sup>2+</sup> entry pathways in the heart: the untold STORai?. <i>Cardiovascular Research</i> , 2015, 105, 233-234.	3.8	0
98	Increasing protein O <sup>6</sup> GlcNAc levels by inhibition of O <sup>6</sup> GlcNAcase improves cardiac function following trauma hemorrhage and resuscitation in rat. <i>FASEB Journal</i> , 2006, 20, A1471.	0.5	0
99	Glutamine protects isolated rat heart from ischemia/reperfusion injury through the hexosamine biosynthesis pathway. <i>FASEB Journal</i> , 2006, 20, .	0.5	0
100	Pressure overload exacerbates insulin resistance in obesity and type 2 diabetes. <i>FASEB Journal</i> , 2008, 22, 1226.35.	0.5	0
101	Short term consumption of diets high in fat and/or sugar in young animals increase cardiovascular risk factors prior to the onset of obesity. <i>FASEB Journal</i> , 2008, 22, 1226.34.	0.5	0
102	O <sup>6</sup> Glycosylation is Increased in the Tubuli and Glomeruli of Patients with Diabetic Nephropathy.. <i>FASEB Journal</i> , 2008, 22, 160-160.	0.5	0
103	Abnormal autophagic response contributes to cardiac dysfunction in diabetic rat hearts following pressure overload. <i>FASEB Journal</i> , 2009, 23, 989.3.	0.5	0
104	Consumption of a western diet and the pancreatic O <sup>6</sup> GlcNAc response. <i>FASEB Journal</i> , 2009, 23, 987.1.	0.5	0
105	Chronic ingestion of a western diet alters O <sup>6</sup> linked N <sup>6</sup> acetylglucosamine (O <sup>6</sup> GlcNAc) protein modification in the heart. <i>FASEB Journal</i> , 2010, 24, 787.9.	0.5	0
106	O <sup>6</sup> GlcNAc agonist treatment attenuates early inflammatory response in the lung after cecal puncture and ligation induced sepsis in rats. <i>FASEB Journal</i> , 2010, 24, 788.1.	0.5	0
107	O <sup>6</sup> GlcNAcylation of the AMPA receptor GluA2 Subunit May Contribute to LTD at Hippocampal CA3-CA1 Synapses. <i>FASEB Journal</i> , 2012, 26, 902.2.	0.5	0
108	O <sup>6</sup> GlcNAcylation Modulates Hippocampal Plasticity and Alters Hippocampal Dependent Learning and Memory. <i>FASEB Journal</i> , 2013, 27, 934.1.	0.5	0