Matthew S Gentry

List of Publications by Year
in descending order

99 papers	2,976 citations	201674 27 h-index	189892 50 g-index
108 all docs	108 docs citations	108 times ranked	2351 citing authors

#	Article	IF	Citations
1	Analysis of circulating metabolites to differentiate Parkinsonâ€™s disease and essential tremor. Neuroscience Letters, 2022, 769, 136428.	2.1	5
2	High-dimensionality reduction clustering of complex carbohydrates to study lung cancer metabolic heterogeneity. Advances in Cancer Research, 2022, 154, 227-251.	5.0	0
3	Activation of Drp1 promotes fatty acids-induced metabolic reprograming to potentiate Wnt signaling in colon cancer. Cell Death and Differentiation, 2022, 29, 1913-1927.	11.2	20
4	In situ spatial glycomic imaging of mouse and human Alzheimer's disease brains. Alzheimer's and Dementia, 2022, 18, 1721-1735.	0.8	25
5	Two Diseasesâ€”One Preclinical Treatment Targeting Glycogen Synthesis. Neurotherapeutics, 2022, 19, 977-981.	4.4	2
6	Developing a Pipeline for Personalized Diagnoses of Glut1 Deficiency Syndrome. FASEB Journal, 2022, 36, .	0.5	0
7	Elucidating the Role of Glycogen in Glucose Transporter 1 Deficiency Syndrome. FASEB Journal, 2022, 36, .	0.5	0
8	Development of a Novel ELISA for Sensitive Quantitation of Glycogen and Polyglucosan Bodies. FASEB Journal, 2022, 36, .	0.5	0
9	A human prefrontal cortex tissue microarray to study Alzheimerâ€™s disease. FASEB Journal, 2022, 36, .	0.5	0
10	Longitudinal profiling of the Plasma Glycome from Normal and Alzheimerâ€™s Disease individuals. FASEB Journal, 2022, 36, .	0.5	0
11	The Toxoplasma glucan phosphatase TgLaforin utilizes a distinct functional mechanism that can be exploited by therapeutic inhibitors. Journal of Biological Chemistry, 2022, 298, 102089.	3.4	8
12	Tissue-Specific Downregulation of Fatty Acid Synthase Suppresses Intestinal Adenoma Formation via Coordinated Reprograming of Transcriptome and Metabolism in the Mouse Model of Apc-Driven Colorectal Cancer. International Journal of Molecular Sciences, 2022, 23, 6510.	4.1	9
13	Peter J. Roach (1948â€“2022). Cell Metabolism, 2022, 34, 937-939.	16.2	0
14	251st ENMC international workshop: Polyglucosan storage myopathies 13â€“15 December 2019, Hoofddorp, the Netherlands. Neuromuscular Disorders, 2021, 31, 466-477.	0.6	4
15	Astrocytic glycogen accumulation drives the pathophysiology of neurodegeneration in Lafora disease. Brain, 2021, 144, 2349-2360.	7.6	25
16	Protein hyperâ€glycosylation is a metabolic feature of mouse and human brains with beta amyloid pathology. FASEB Journal, 2021, 35, .	0.5	0
17	Brain glycogen serves as a critical glucosamine cache required for protein glycosylation. FASEB Journal, 2021, 35, .	0.5	1
18	Personalized Diagnosis of Lafora Disease through Biochemical Characterization of SNPs. FASEB Journal, 2021, 35, .	0.5	0

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19	The 6th International Lafora Epilepsy Workshop: Advances in the search for a cure. Epilepsy and Behavior, 2021, 119, 107975.	1.7	11
20	Generation and characterization of a laforin nanobody inhibitor. Clinical Biochemistry, 2021, 93, 80-89.	1.9	3
21	Brain glycogen serves as a critical glucosamine cache required for protein glycosylation. Cell Metabolism, 2021, 33, 1404-1417.e9.	16.2	47
22	APOÎ•4 lowers energy expenditure in females and impairs glucose oxidation by increasing flux through aerobic glycolysis. Molecular Neurodegeneration, 2021, 16, 62.	10.8	34
23	Serotonergic therapy in epilepsy. Current Opinion in Neurology, 2021, 34, 206-212.	3.6	7
24	Hippocampal disruptions of synaptic and astrocyte metabolism are primary events of early amyloid pathology in the 5xFAD mouse model of Alzheimerâ€™s disease. Cell Death and Disease, 2021, 12, 954.	6.3	41
25	An empirical pipeline for personalized diagnosis of Lafora disease mutations. IScience, 2021, 24, 103276.	4.1	7
26	Emerging roles of N-linked glycosylation in brain physiology and disorders. Trends in Endocrinology and Metabolism, 2021, 32, 980-993.	7.1	38
27	Lactate supports a metabolic-epigenetic link in macrophage polarization. Science Advances, 2021, 7, eabi8602.	10.3	70
28	Frontotemporal dementia non-sense mutation of progranulin rescued by aminoglycosides. Human Molecular Genetics, 2020, 29, 624-634.	2.9	11
29	Accurate and sensitive quantitation of glucose and glucose phosphates derived from storage carbohydrates by mass spectrometry. Carbohydrate Polymers, 2020, 230, 115651.	10.2	27
30	APOE alters glucose flux through central carbon pathways in astrocytes. Neurobiology of Disease, 2020, 136, 104742.	4.4	61
31	Clear Cell Adenocarcinoma of the Urinary Bladder Is a Glycogen-Rich Tumor with Poorer Prognosis. Journal of Clinical Medicine, 2020, 9, 138.	2.4	12
32	The 5th International Lafora Epilepsy Workshop: Basic science elucidating therapeutic options and preparing for therapies in the clinic. Epilepsy and Behavior, 2020, 103, 106839.	1.7	17
33	Polyglucosan body structure in Lafora disease. Carbohydrate Polymers, 2020, 240, 116260.	10.2	22
34	Spatial profiling of gangliosides in mouse brain by mass spectrometry imaging. Journal of Lipid Research, 2020, 61, 1537.	4.2	10
35	The E3 ligase malin plays a pivotal role in promoting nuclear glycogenolysis and histone acetylation. Annals of Translational Medicine, 2020, 8, 254-254.	1.7	3
36	Central Nervous System Delivery and Biodistribution Analysis of an Antibodyâ€“Enzyme Fusion for the Treatment of Lafora Disease. Molecular Pharmaceutics, 2019, 16, 3791-3801.	4.6	18

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37	Targeting Pathogenic Lafora Bodies in Lafora Disease Using an Antibody-Enzyme Fusion. Cell Metabolism, 2019, 30, 689-705.e6.	16.2	66
38	Nuclear Glycogenolysis Modulates Histone Acetylation in Human Non-Small Cell Lung Cancers. Cell Metabolism, 2019, 30, 903-916.e7.	16.2	72
39	Antibody-Mediated Enzyme Therapeutics and Applications in Glycogen Storage Diseases. Trends in Molecular Medicine, 2019, 25, 1094-1109.	6.7	26
40	Clinical Features, Survival and Prognostic Factors of Glycogen-Rich Clear Cell Carcinoma (GRCC) of the Breast in the U.S. Population. Journal of Clinical Medicine, 2019, 8, 246.	2.4	26
41	The 4th International Lafora Epilepsy Workshop: Shifting paradigms, paths to treatment, and hope for patients. Epilepsy and Behavior, 2019, 90, 284-286.	1.7	11
42	Brain Glycogen Structure and Its Associated Proteins: Past, Present and Future. Advances in Neurobiology, 2019, 23, 17-81.	1.8	29
43	Compartmentalized glycogenolysis regulates lung cancer transcription. FASEB Journal, 2019, 33, 652.25.	0.5	1
44	â€œPersonalized mechanisms of Lafora disease using Differential Scanning Fluorimetryâ€• FASEB Journal, 2019, 33, 636.4.	0.5	0
45	Structural Studies of a Novel Glucan Phosphatase from the Red Alga Cyanidioschyzon Merolae. FASEB Journal, 2019, 33, 645.3.	0.5	0
46	The 3rd International Lafora Epilepsy Workshop: Evidence for a cure. Epilepsy and Behavior, 2018, 81, 125-127.	1.7	11
47	Lafora disease offers a unique window into neuronal glycogen metabolism. Journal of Biological Chemistry, 2018, 293, 7117-7125.	3.4	71
48	The unique evolution of the carbohydrateâ€binding module CBM 20 in laforin. FEBS Letters, 2018, 592, 586-598.	2.8	12
49	The UBA domain of SnRK1 promotes activation and maintains catalytic activity. Biochemical and Biophysical Research Communications, 2018, 497, 127-132.	2.1	21
50	Oligomerization and carbohydrate binding of glucan phosphatases. Analytical Biochemistry, 2018, 563, 51-55.	2.4	8
51	Nucleoside triphosphate cosubstrates control the substrate profile and efficiency of aminoglycoside 3â€²-O-phosphotransferase type IIa. MedChemComm, 2018, 9, 1332-1339.	3.4	0
52	A novel EPM2A mutation yields a slow progression form of Lafora disease. Epilepsy Research, 2018, 145, 169-177.	1.6	10
53	Laforin. , 2018, , 2803-2815.		0
54	Patientâ€Specific Mechanisms of Lafora Disease Mutations in the Human Glycogen Phosphatase. FASEB Journal, 2018, 32, 673.1.	0.5	0

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55	Personalized Diagnosis for Lafora Disease, a Fatal Epilepsy. FASEB Journal, 2018, 32, 541.8.	0.5	0
56	Whatâ€™s in a name?. ELife, 2017, 6, .	6.0	10
57	Laforin. , 2017, , 1-13.		0
58	Plant Î±â€glucan phosphatases SEX4 and LSF2 display different affinity for amylopectin and amylose. FEBS Letters, 2016, 590, 118-128.	2.8	18
59	Structural mechanisms of plant glucan phosphatases in starch metabolism. FEBS Journal, 2016, 283, 2427-2447.	4.7	24
60	Unique carbohydrate binding platforms employed by the glucan phosphatases. Cellular and Molecular Life Sciences, 2016, 73, 2765-2778.	5.4	23
61	Structural biology of glucan phosphatases from humans to plants. Current Opinion in Structural Biology, 2016, 40, 62-69.	5.7	23
62	Reexamining Chronic Toxoplasma gondii Infection: Surprising Activity for a â€œDormantâ€•Parasite. Current Clinical Microbiology Reports, 2016, 3, 175-185.	3.4	47
63	Laforin: Function and Action of a Glucan Phosphatase. , 2016, , 1-13.		0
64	Reversible Glucan Phosphorylation Requires Unique Carbohydrate Binding Platforms. FASEB Journal, 2016, 30, 1094.1.	0.5	0
65	Defining Thermophilic Glucan Dikinases in Cyanidioschyzon merolae. FASEB Journal, 2016, 30, .	0.5	0
66	Structural Mechanism of Laforin Function in Glycogen Dephosphorylation and Lafora Disease. Molecular Cell, 2015, 57, 261-272.	9.7	54
67	Mechanistic Insights into Glucan Phosphatase Activity against Polyglucan Substrates. Journal of Biological Chemistry, 2015, 290, 23361-23370.	3.4	32
68	Expression, purification and characterization of soluble red rooster laforin as a fusion protein in Escherichia coli. BMC Biochemistry, 2014, 15, 8.	4.4	4
69	HUWE1 Is a Molecular Link Controlling RAF-1 Activity Supported by the Shoc2 Scaffold. Molecular and Cellular Biology, 2014, 34, 3579-3593.	2.3	37
70	Phosphoglucan-bound structure of starch phosphatase Starch Excess4 reveals the mechanism for C6 specificity. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7272-7277.	7.1	54
71	Laforin, a protein with many faces: glucan phosphatase, adapter protein, et alii. FEBS Journal, 2013, 280, 525-537.	4.7	63
72	A bioassay for Lafora disease and laforin glucan phosphatase activity. Clinical Biochemistry, 2013, 46, 1869-1876.	1.9	6

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73	A malachite green-based assay to assess glucan phosphatase activity. Analytical Biochemistry, 2013, 435, 54-56.	2.4	38
74	Structure of the Arabidopsis Glucan Phosphatase LIKE SEX FOUR2 Reveals a Unique Mechanism for Starch Dephosphorylation. Plant Cell, 2013, 25, 2302-2314.	6.6	35
75	Dimerization of the Glucan Phosphatase Laforin Requires the Participation of Cysteine 329. PLoS ONE, 2013, 8, e69523.	2.5	15
76	The malinâ€laforin compex modulates glycogen catabolism through its effect on glycogen phosphorylase. FASEB Journal, 2013, 27, 662.6.	0.5	0
77	Laforin and malin knockout mice have normal glucose disposal and insulin sensitivity. Human Molecular Genetics, 2012, 21, 1604-1610.	2.9	20
78	Deciphering the role of malin in the lafora progressive myoclonus epilepsy. IUBMB Life, 2012, 64, 801-808.	3.4	25
79	Structural and functional studies of plant glucan phosphatases. FASEB Journal, 2012, 26, 766.2.	0.5	0
80	Regulation of glycogen phosphorylase by the malinâ€laforin complex. FASEB Journal, 2012, 26, 852.14.	0.5	0
81	Discovery, characterization, and structural analyses of glucan phosphatases from plants to humans. FASEB Journal, 2012, 26, 766.3.	0.5	0
82	Lafora disease E3-ubiquitin ligase malin is related to TRIM32 at both the phylogenetic and functional level. BMC Evolutionary Biology, 2011, 11, 225.	3.2	23
83	Laforin, a Dual Specificity Phosphatase Involved in Lafora Disease, Is Present Mainly as Monomeric Form with Full Phosphatase Activity. PLoS ONE, 2011, 6, e24040.	2.5	25
84	Laforin, a dual-specificity phosphatase involved in Lafora disease, is phosphorylated at Ser25 by AMP-activated protein kinase. Biochemical Journal, 2011, 439, 265-275.	3.7	29
85	The Phosphoglucan Phosphatase Like Sex Four2 Dephosphorylates Starch at the C3-Position in Arabidopsis Â Â. Plant Cell, 2011, 23, 4096-4111.	6.6	119
86	Structural basis for the glucan phosphatase activity of Starch Excess4. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15379-15384.	7.1	47
87	Deuterium exchange mass spectrometry reveals structural dynamics of glucan phosphatases. FASEB Journal, 2010, 24, 863.5.	0.5	0
88	STARCH-EXCESS4 Is a Laforin-Like Phosphoglucan Phosphatase Required for Starch Degradation in Arabidopsis thaliana Â Â. Plant Cell, 2009, 21, 334-346.	6.6	208
89	Lafora disease: insights into neurodegeneration from plant metabolism. Trends in Biochemical Sciences, 2009, 34, 628-639.	7.5	83
90	Conservation of the glucan phosphatase laforin is linked to rates of molecular evolution and the glucan metabolism of the organism. BMC Evolutionary Biology, 2009, 9, 138.	3.2	43

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91	Structural Insights into Glucan Phosphatase Dynamics Using Amide Hydrogenâ˜Deuterium Exchange Mass Spectrometry. Biochemistry, 2009, 48, 9891-9902.	2.5	32
92	Malin Decreases Glycogen Accumulation by Promoting the Degradation of Protein Targeting to Glycogen (PTG). Journal of Biological Chemistry, 2008, 283, 4069-4076.	3.4	144
93	An In Vivo Assay to Quantify Stable Protein Phosphatase 2A (PP2A) Heterotrimeric Species. , 2007, 365, 71-84.		2
94	A conserved phosphatase cascade that regulates nuclear membrane biogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6596-6601.	7.1	145
95	A role for AGL ubiquitination in the glycogen storage disorders of Lafora and Coriâ€™s disease. Genes and Development, 2007, 21, 2399-2409.	5.9	90
96	The phosphatase laforin crosses evolutionary boundaries and links carbohydrate metabolism to neuronal disease. Journal of Cell Biology, 2007, 178, 477-488.	5.2	140
97	Laforin, a Dual Specificity Phosphatase That Dephosphorylates Complex Carbohydrates. Journal of Biological Chemistry, 2006, 281, 30412-30418.	3.4	183
98	From The Cover: Insights into Lafora disease: Malin is an E3 ubiquitin ligase that ubiquitinates and promotes the degradation of laforin. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8501-8506.	7.1	221
99	Laforin. The AFCS-nature Molecule Pages, 0, , .	0.2	5