

Chihiro Sato

List of Publications by Year in descending order

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62
papers

2,041
citations

279798

23
h-index

243625

44
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65
all docs

65
docs citations

65
times ranked

1666
citing authors

#	ARTICLE	IF	CITATIONS
1	Disialic, oligosialic and polysialic acids: distribution, functions and related disease. <i>Journal of Biochemistry</i> , 2013, 154, 115-136.	1.7	146
2	Polysialic Acid in Human Milk. <i>Journal of Biological Chemistry</i> , 2003, 278, 13875-13880.	3.4	122
3	Polysialic acid: Biosynthesis, novel functions and applications. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2014, 49, 498-532.	5.2	122
4	Direct binding of polysialic acid to a brain-derived neurotrophic factor depends on the degree of polymerization. <i>Glycobiology</i> , 2008, 18, 1044-1053.	2.5	119
5	Frequent Occurrence of Pre-existing α 8-Linked Disialic and Oligosialic Acids with Chain Lengths Up to 7 Sia Residues in Mammalian Brain Glycoproteins. <i>Journal of Biological Chemistry</i> , 2000, 275, 15422-15431.	3.4	109
6	Structural and Functional Impairments of Polysialic Acid by a Mutated Polysialyltransferase Found in Schizophrenia. <i>Journal of Biological Chemistry</i> , 2011, 286, 21535-21545.	3.4	105
7	The AMOR Arabinogalactan Sugar Chain Induces Pollen-Tube Competency to Respond to Ovular Guidance. <i>Current Biology</i> , 2016, 26, 1091-1097.	3.9	103
8	Characterization of the Antigenic Specificity of Four Different Anti- α 8-Linked Polysialic Acid) Antibodies Using Lipid-conjugated Oligo/Polysialic Acids. <i>Journal of Biological Chemistry</i> , 1995, 270, 18923-18928.	3.4	92
9	Novel Regulation of Fibroblast Growth Factor 2 (FGF2)-mediated Cell Growth by Polysialic Acid. <i>Journal of Biological Chemistry</i> , 2012, 287, 3710-3722.	3.4	87
10	Tissue-Specific Posttranslational Modification Allows Functional Targeting of Thyrotropin. <i>Cell Reports</i> , 2014, 9, 801-809.	6.4	84
11	Rapid Trimming of Cell Surface Polysialic Acid (PolySia) by Exovesicular Sialidase Triggers Release of Preexisting Surface Neurotrophin. <i>Journal of Biological Chemistry</i> , 2015, 290, 13202-13214.	3.4	80
12	Development of a Highly Sensitive Chemical Method for Detecting α 8-Linked Oligo/Polysialic Acid Residues in Glycoproteins Blotted on the Membrane. <i>Analytical Biochemistry</i> , 1998, 261, 191-197.	2.4	79
13	Fluorescent-Assisted Detection of Oligosialyl Units in Glycoconjugates. <i>Analytical Biochemistry</i> , 1999, 266, 102-109.	2.4	65
14	Systems glycomics of adult zebrafish identifies organ-specific sialylation and glycosylation patterns. <i>Nature Communications</i> , 2018, 9, 4647.	12.8	65
15	Crystal Structure of Anti-polysialic Acid Antibody Single Chain Fv Fragment Complexed with Octasialic Acid. <i>Journal of Biological Chemistry</i> , 2013, 288, 33784-33796.	3.4	54
16	Impact of structural aberrancy of polysialic acid and its synthetic enzyme ST8SIA2 in schizophrenia. <i>Frontiers in Cellular Neuroscience</i> , 2013, 7, 61.	3.7	46
17	Polysialylation and disease. <i>Molecular Aspects of Medicine</i> , 2021, 79, 100892.	6.4	42
18	Relationship between ST8SIA2, polysialic acid and its binding molecules, and psychiatric disorders. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2016, 1860, 1739-1752.	2.4	37

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19	Protective effects of polysialic acid on proteolytic cleavage of FGF2 and proBDNF/BDNF. <i>Glycobiology</i> , 2015, 25, 1112-1124.	2.5	34
20	Measurement of Glycan-Based Interactions by Frontal Affinity Chromatography and Surface Plasmon Resonance. <i>Methods in Enzymology</i> , 2010, 478, 219-232.	1.0	31
21	Structural and functional impairments of polysialic acid (polySia)-neural cell adhesion molecule (NCAM) synthesized by a mutated polysialyltransferase of a schizophrenic patient. <i>Pure and Applied Chemistry</i> , 2012, 84, 1895-1906.	1.9	30
22	Discovery of a new sialic acid binding region that regulates Siglec-7. <i>Scientific Reports</i> , 2020, 10, 8647.	3.3	25
23	Identification and functional characterization of a Siglec-7 counter-receptor on K562 cells. <i>Journal of Biological Chemistry</i> , 2021, 296, 100477.	3.4	25
24	Chemical Synthesis and Evaluation of a Disialic Acid-Containing Dextran Polymer as an Inhibitor for the Interaction between Siglec 7 and Its Ligand. <i>ChemBioChem</i> , 2017, 18, 1194-1203.	2.6	24
25	Different properties of polysialic acids synthesized by the polysialyltransferases ST8SIA2 and ST8SIA4. <i>Glycobiology</i> , 2017, 27, 834-846.	2.5	24
26	Effects of intronic single nucleotide polymorphisms (iSNPs) of a polysialyltransferase, ST8SIA2 gene found in psychiatric disorders on its gene products. <i>Biochemical and Biophysical Research Communications</i> , 2016, 478, 1123-1129.	2.1	20
27	Acute stress-induced change in polysialic acid levels mediated by sialidase in mouse brain. <i>Scientific Reports</i> , 2019, 9, 9950.	3.3	18
28	Functional roles of ST8SIA3-mediated sialylation of striatal dopamine D2 and adenosine A2A receptors. <i>Translational Psychiatry</i> , 2019, 9, 209.	4.8	18
29	Discovery, Primary, and Crystal Structures and Capacitation-related Properties of a Prostate-derived Heparin-binding Protein WGA16 from Boar Sperm. <i>Journal of Biological Chemistry</i> , 2015, 290, 5484-5501.	3.4	17
30	Sialic Acids in Neurology. <i>Advances in Carbohydrate Chemistry and Biochemistry</i> , 2019, 76, 1-64.	0.9	17
31	Altered expression of ganglioside GM3 molecular species and a potential regulatory role during myoblast differentiation. <i>Journal of Biological Chemistry</i> , 2017, 292, 7040-7051.	3.4	15
32	Chlorpromazine Increases the Expression of Polysialic Acid (PolySia) in Human Neuroblastoma Cells and Mouse Prefrontal Cortex. <i>International Journal of Molecular Sciences</i> , 2017, 18, 1123.	4.1	15
33	Evolutionary conservation of human ketodeoxynonosonic acid production is independent of sialoglycan biosynthesis. <i>Journal of Clinical Investigation</i> , 2021, 131, .	8.2	14
34	Synthesis of end-functionalized glycopolymers containing $\alpha(2,8)$ disialic acids via π -allyl nickel catalyzed coordinating polymerization and their interaction with Siglec-7. <i>Chemical Communications</i> , 2017, 53, 553-556.	4.1	13
35	Mental disorders and an acidic glycan-from the perspective of polysialic acid (PSA/polySia) and the synthesizing enzyme, ST8SIA2. <i>Glycoconjugate Journal</i> , 2018, 35, 353-373.	2.7	13
36	Glycobiology of Polysialic Acids on Sea Urchin Gametes. <i>Trends in Glycoscience and Glycotechnology</i> , 2007, 19, 85-98.	0.1	12

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37	Positive selection on schizophrenia-associated ST8SIA2 gene in post-glacial Asia. <i>PLoS ONE</i> , 2018, 13, e0200278.	2.5	12
38	Exploring the Impact of Ketodeoxynonulosonic Acid in Host-Pathogen Interactions Using Uptake and Surface Display by Nontypeable <i>Haemophilus influenzae</i> . <i>MBio</i> , 2021, 12, .	4.1	12
39	Ganglioside contained in the neuronal tissue-enriched acidic protein of 22 kDa (NAP-22) fraction prepared from the detergent-resistant membrane microdomain of rat brain inhibits the phosphatase activity of calcineurin. <i>Journal of Neuroscience Research</i> , 2015, 93, 1462-1470.	2.9	9
40	Interaction of 70-kDa heat shock protein with glycosaminoglycans and acidic glycopolymers. <i>Biochemical and Biophysical Research Communications</i> , 2014, 453, 229-234.	2.1	8
41	Sulfatide-Hsp70 Interaction Promotes Hsp70 Clustering and Stabilizes Binding to Unfolded Protein. <i>Biomolecules</i> , 2015, 5, 958-973.	4.0	8
42	Diverse subcellular localizations of the insect CMP-sialic acid synthetases. <i>Glycobiology</i> , 2017, 27, 329-341.	2.5	7
43	Comparative Studies of Polysialic Acids Derived from Five Different Vertebrate Brains. <i>International Journal of Molecular Sciences</i> , 2020, 21, 8593.	4.1	6
44	Frontal Affinity Chromatography: Practice of Weak Interaction Analysis Between Lectins and Fluorescently Labeled Oligosaccharides. <i>Methods in Molecular Biology</i> , 2014, 1200, 257-264.	0.9	5
45	Sialic acid sulfation is induced by the antibiotic treatment in mammalian cells. <i>Bioscience, Biotechnology and Biochemistry</i> , 2020, 84, 2311-2318.	1.3	5
46	Combinational Analyses with Multiple Methods Reveal the Existence of Several Forms of Polysialylated Neural Cell Adhesion Molecule in Mouse Developing Brains. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5892.	4.1	5
47	The conserved arginine residue in all siglecs is essential for Siglec-7 binding to sialic acid. <i>Biochemical and Biophysical Research Communications</i> , 2021, 534, 1069-1075.	2.1	5
48	New Functions of Polysialic Acid and Its Relationship to Schizophrenia. <i>Trends in Glycoscience and Glycotechnology</i> , 2011, 23, 221-238.	0.1	5
49	Alpha-2 macroglobulin as a region-specific secretory protein in male reproductive tract, and its dynamics during sperm transit toward the female spermatheca in the blue crab. <i>Molecular Reproduction and Development</i> , 2017, 84, 585-595.	2.0	4
50	Effect of expression alteration in flanking genes on phenotypes of St8sia2-deficient mice. <i>Scientific Reports</i> , 2019, 9, 13634.	3.3	4
51	N-linked mannose glycoconjugates on shrimp thrombospondin, pm TSP-II, and their involvement in the sperm acrosome reaction. <i>Molecular Reproduction and Development</i> , 2019, 86, 440-449.	2.0	4
52	Identification and characterization of a novel, versatile sialidase from a <i>Sphingobacterium</i> that can hydrolyze the glycosides of any sialic acid species at neutral pH. <i>Biochemical and Biophysical Research Communications</i> , 2020, 523, 487-492.	2.1	4
53	PSA-NCAM Colocalized with Cholecystokinin-Expressing Cells in the Hippocampus Is Involved in Mediating Antidepressant Efficacy. <i>Journal of Neuroscience</i> , 2020, 40, 825-842.	3.6	4
54	The α 2,8-sialyltransferase 6 (St8sia6) localizes in the ER and enhances the anchorage-independent cell growth in cancer. <i>Biochemical and Biophysical Research Communications</i> , 2022, 608, 52-58.	2.1	3

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55	Polysialylation in a DISC1 Mutant Mouse. International Journal of Molecular Sciences, 2022, 23, 5207.	4.1	2
56	Shrimp thrombospondin (TSP): presence of O- ¹ ,4-N-acetylglucosamine polymers and its function in TSP chain association in egg extracellular matrix. Scientific Reports, 2022, 12, 7925.	3.3	2
57	Comprehensive Analysis of Oligo/Polysialylglycoconjugates in Cancer Cell Lines. International Journal of Molecular Sciences, 2022, 23, 5569.	4.1	2
58	3P-066 Docking simulation and biochemical analyses of sialylated glycan recognition of sialic acid binding Ig-like lectin (Siglec)-7 (Protein:Function, The 47th Annual Meeting of the Biophysical Society of) Tj ETQq0 00rgBT /Overlock 10		
59	Glycans in Nervous System. , 2019, , 209-219.		0
60	Structure and Function of di/oligo/polysialic Acid (Polymerized Sialyl Structure). Trends in Glycoscience and Glycotechnology, 2019, 31, SE32-SE35.	0.1	0
61	Structure and Function of di/oligo/polysialic Acid (Polymerized Sialyl Structure). Trends in Glycoscience and Glycotechnology, 2019, 31, SJ32-SJ35.	0.1	0
62	Implication of N-glycolylneuraminic acid in regulation of cell adhesiveness of C2C12 myoblast cells during differentiation into myotube cells. Glycoconjugate Journal, 0, , .	2.7	0