

# Martina MÃ¼hlenhoff

## List of Publications by Year in descending order

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45  
papers

2,979  
citations

147801

31  
h-index

233421

45  
g-index

46  
all docs

46  
docs citations

46  
times ranked

2375  
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular characterization of eukaryotic polysialyltransferase-1. <i>Nature</i> , 1995, 373, 715-718.	27.8	291
2	Genetic Ablation of Polysialic Acid Causes Severe Neurodevelopmental Defects Rescued by Deletion of the Neural Cell Adhesion Molecule. <i>Journal of Biological Chemistry</i> , 2005, 280, 42971-42977.	3.4	262
3	Crystal structure of the polysialic acid-degrading endosialidase of bacteriophage K1F. <i>Nature Structural and Molecular Biology</i> , 2005, 12, 90-96.	8.2	180
4	Polysialic acid: three-dimensional structure, biosynthesis and function. <i>Current Opinion in Structural Biology</i> , 1998, 8, 558-564.	5.7	169
5	Synaptic cell adhesion molecule SynCAM 1 is a target for polysialylation in postnatal mouse brain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 10250-10255.	7.1	148
6	The Structures of Bacteriophages K1E and K1-5 Explain Processive Degradation of Polysaccharide Capsules and Evolution of New Host Specificities. <i>Journal of Molecular Biology</i> , 2007, 371, 836-849.	4.2	139
7	Dissecting polysialic acid and NCAM functions in brain development. <i>Journal of Neurochemistry</i> , 2007, 103, 56-64.	3.9	120
8	Evolution of bacteriophages infecting encapsulated bacteria: lessons from <i>Escherichia coli</i> K1-specific phages. <i>Molecular Microbiology</i> , 2006, 60, 1123-1135.	2.5	93
9	Impact of the Polysialyltransferases ST8SialI and ST8SialIV on Polysialic Acid Synthesis during Postnatal Mouse Brain Development. <i>Journal of Biological Chemistry</i> , 2008, 283, 1463-1471.	3.4	91
10	9-O-Acetylation of sialic acids is catalysed by CASD1 via a covalent acetyl-enzyme intermediate. <i>Nature Communications</i> , 2015, 6, 7673.	12.8	90
11	A Multivalent Adsorption Apparatus Explains the Broad Host Range of Phage phi92: a Comprehensive Genomic and Structural Analysis. <i>Journal of Virology</i> , 2012, 86, 10384-10398.	3.4	88
12	Polysialic Acid: Versatile Modification of NCAM, SynCAM 1 and Neuropilin-2. <i>Neurochemical Research</i> , 2013, 38, 1134-1143.	3.3	87
13	Polysialylation of NCAM by a single enzyme. <i>Current Biology</i> , 1996, 6, 1188-1191.	3.9	76
14	Molecular cloning and functional expression of bacteriophage PK1E-encoded endoneuraminidase Endo NE. <i>Molecular Microbiology</i> , 1995, 16, 441-450.	2.5	75
15	Imbalance of neural cell adhesion molecule and polysialyltransferase alleles causes defective brain connectivity. <i>Brain</i> , 2009, 132, 2831-2838.	7.6	73
16	Polysialic Acid Profiles of Mice Expressing Variant Allelic Combinations of the Polysialyltransferases ST8SialI and ST8SialIV. <i>Journal of Biological Chemistry</i> , 2006, 281, 31605-31615.	3.4	70
17	Polysialylation of NCAM. <i>Advances in Experimental Medicine and Biology</i> , 2010, 663, 95-109.	1.6	69
18	Characterization of a Novel Intramolecular Chaperone Domain Conserved in Endosialidases and Other Bacteriophage Tail Spike and Fiber Proteins. <i>Journal of Biological Chemistry</i> , 2007, 282, 2821-2831.	3.4	66

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19	Polysialylation and lipopolysaccharide-induced shedding of E-selectin ligand and neuropilin-2 by microglia and THP-1 macrophages. <i>Glia</i> , 2016, 64, 1314-1330.	4.9	63
20	Localization and characterization of polysialic acid-containing N-linked glycans from bovine NCAM. <i>Glycobiology</i> , 2002, 12, 47-63.	2.5	60
21	Proteolytic Processing and Oligomerization of Bacteriophage-derived Endosialidases. <i>Journal of Biological Chemistry</i> , 2003, 278, 12634-12644.	3.4	55
22	Enzyme-dependent Variations in the Polysialylation of the Neural Cell Adhesion Molecule (NCAM) in Vivo. <i>Journal of Biological Chemistry</i> , 2008, 283, 17-28.	3.4	54
23	Brain development needs sugar: the role of polysialic acid in controlling NCAM functions. <i>Biological Chemistry</i> , 2009, 390, 567-574.	2.5	45
24	The Impact of N-Glycosylation on the Functions of Polysialyltransferases. <i>Journal of Biological Chemistry</i> , 2001, 276, 34066-34073.	3.4	42
25	Characterization of Oligo- and Polysialic Acids by MALDI-TOF-MS. <i>Analytical Chemistry</i> , 2007, 79, 7161-7169.	6.5	41
26	Structural Basis for the Recognition and Cleavage of Polysialic Acid by the Bacteriophage K1F Tailspike Protein EndoNF. <i>Journal of Molecular Biology</i> , 2010, 397, 341-351.	4.2	41
27	Polysialylation of the Synaptic Cell Adhesion Molecule 1 (SynCAM 1) Depends Exclusively on the Polysialyltransferase ST8Siall in Vivo. <i>Journal of Biological Chemistry</i> , 2012, 287, 35170-35180.	3.4	40
28	Polysialic Acid on Neuropilin-2 Is Exclusively Synthesized by the Polysialyltransferase ST8SiaIV and Attached to Mucin-type O-Glycans Located between the b2 and c Domain. <i>Journal of Biological Chemistry</i> , 2013, 288, 22880-22892.	3.4	37
29	Polysialic acid on SynCAM 1 in NG2 cells and on neuropilin-2 in microglia is confined to intracellular pools that are rapidly depleted upon stimulation. <i>Glia</i> , 2015, 63, 1240-1255.	4.9	37
30	Polysialic acid controls NCAM-induced differentiation of neuronal precursors into calretinin-positive olfactory bulb interneurons. <i>Developmental Neurobiology</i> , 2008, 68, 1170-1184.	3.0	34
31	High affinity binding of long-chain polysialic acid to antibody, and modulation by divalent cations and polyamines. <i>Molecular Immunology</i> , 2002, 39, 399-411.	2.2	33
32	Biochemical Characterization of The polysialic Acid-specific O-Acetyltransferase NeuO of <i>Escherichia coli</i> K1. <i>Journal of Biological Chemistry</i> , 2007, 282, 22217-22227.	3.4	27
33	Proteolytic Release of the Intramolecular Chaperone Domain Confers Processivity to Endosialidase F. <i>Journal of Biological Chemistry</i> , 2009, 284, 9465-9474.	3.4	27
34	O-acetyltransferase gene <i>neuO</i> is segregated according to phylogenetic background and contributes to environmental desiccation resistance in <i>Escherichia coli</i> K1. <i>Environmental Microbiology</i> , 2009, 11, 3154-3165.	3.8	24
35	Molecular Defects That Cause Loss of Polysialic Acid in the Complementation Group 2A10. <i>Journal of Biological Chemistry</i> , 2000, 275, 32861-32870.	3.4	22
36	Homeostatic regulation of NCAM polysialylation is critical for correct synaptic targeting. <i>Cellular and Molecular Life Sciences</i> , 2012, 69, 1179-1191.	5.4	19

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37	Polysialic acid modification of the synaptic cell adhesion molecule SynCAM 1 in human embryonic stem cell-derived oligodendrocyte precursor cells. <i>Stem Cell Research</i> , 2015, 14, 339-346.	0.7	18
38	Glycomic strategy for efficient linkage analysis of di-, oligo- and polysialic acids. <i>Journal of Proteomics</i> , 2012, 75, 5266-5278.	2.4	16
39	Structural and mechanistic basis of capsule O-acetylation in <i>Neisseria meningitidis</i> serogroup A. <i>Nature Communications</i> , 2020, 11, 4723.	12.8	11
40	Intrabodies against the Polysialyltransferases ST8SialI and ST8SialIV inhibit Polysialylation of NCAM in rhabdomyosarcoma tumor cells. <i>BMC Biotechnology</i> , 2017, 17, 42.	3.3	9
41	Role of Sialyl-O-Acetyltransferase CASD1 on GD2 Ganglioside O-Acetylation in Breast Cancer Cells. <i>Cells</i> , 2021, 10, 1468.	4.1	9
42	Polysialylation of NCAM. <i>Neurochemical Research</i> , 2008, , 95.	3.3	8
43	Crystal Structure Analysis of the Polysialic Acid Specific O-Acetyltransferase NeuO. <i>PLoS ONE</i> , 2011, 6, e17403.	2.5	8
44	Polysialic Acid Regulates Sympathetic Outflow by Facilitating Information Transfer within the Nucleus of the Solitary Tract. <i>Journal of Neuroscience</i> , 2017, 37, 6558-6574.	3.6	8
45	The sialyl-O-acetyltransferase NanS of <i>Tannerella forsythia</i> encompasses two catalytic modules with different regiospecificity for O7 and O9 of sialic acid. <i>Glycobiology</i> , 2021, 31, 1176-1191.	2.5	4