# 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 | The sialyl-O-acetylesterase NanS of Tannerella forsythia encompasses two catalytic modules with different regiospecificity for O7 and O9 of sialic acid. Glycobiology, 2021, 31, 1176-1191. | 2.5 | 4 |
| 2 | Role of Sialyl-O-Acetyltransferase CASD1 on GD2 Ganglioside O-Acetylation in Breast Cancer Cells. Cells, 2021, 10, 1468. | 4.1 | 9 |
| 3 | Structural and mechanistic basis of capsule O-acetylation in Neisseria meningitidis serogroup A. Nature Communications, 2020, 11, 4723. | 12.8 | 11 |
| 4 | Intrabodies against the Polysialyltransferases ST8SiaII and ST8SiaIV inhibit Polysialylation of NCAM in rhabdomyosarcoma tumor cells. BMC Biotechnology, 2017, 17, 42. | 3.3 | 9 |
| 5 | Polysialic Acid Regulates Sympathetic Outflow by Facilitating Information Transfer within the Nucleus of the Solitary Tract. Journal of Neuroscience, 2017, 37, 6558-6574. | 3.6 | 8 |
| 6 | Polysialylation and lipopolysaccharideâ€induced shedding of Eâ€selectin ligandâ€1 and neuropilinâ€2 by microglia and THPâ€1 macrophages. Glia, 2016, 64, 1314-1330. | 4.9 | 63 |
| 7 | Polysialic acid on SynCAM 1 in NG2 cells and on neuropilinâ€2 in microglia is confined to intracellular pools that are rapidly depleted upon stimulation. Glia, 2015, 63, 1240-1255. | 4.9 | 37 |
| 8 | Polysialic acid modification of the synaptic cell adhesion molecule SynCAM 1 in human embryonic stem cell-derived oligodendrocyte precursor cells. Stem Cell Research, 2015, 14, 339-346. | 0.7 | 18 |
| 9 | 9-O-Acetylation of sialic acids is catalysed by CASD1 via a covalent acetyl-enzyme intermediate. Nature Communications, 2015, 6, 7673. | 12.8 | 90 |
| 10 | Polysialic Acid: Versatile Modification of NCAM, SynCAM 1 and Neuropilin-2. Neurochemical Research, 2013, 38, 1134-1143. | 3.3 | 87 |
| 11 | 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. Journal of Biological Chemistry, 2013, 288, 22880-22892. | 3.4 | 37 |
| 12 | A Multivalent Adsorption Apparatus Explains the Broad Host Range of Phage phi92: a Comprehensive Genomic and Structural Analysis. Journal of Virology, 2012, 86, 10384-10398. | 3.4 | 88 |
| 13 | Polysialylation of the Synaptic Cell Adhesion Molecule 1 (SynCAM 1) Depends Exclusively on the Polysialyltransferase ST8SiaII in Vivo. Journal of Biological Chemistry, 2012, 287, 35170-35180. | 3.4 | 40 |
| 14 | Glycomic strategy for efficient linkage analysis of di-, oligo- and polysialic acids. Journal of Proteomics, 2012, 75, 5266-5278. | 2.4 | 16 |
| 15 | Homeostatic regulation of NCAM polysialylation is critical for correct synaptic targeting. Cellular and Molecular Life Sciences, 2012, 69, 1179-1191. | 5.4 | 19 |
| 16 | Crystal Structure Analysis of the Polysialic Acid Specific O-Acetyltransferase NeuO. PLoS ONE, 2011, 6, e17403. | 2.5 | 8 |
| 17 | Structural Basis for the Recognition and Cleavage of Polysialic Acid by the Bacteriophage K1F Tailspike Protein EndoNF. Journal of Molecular Biology, 2010, 397, 341-351. | 4.2 | 41 |
| 18 | Synaptic cell adhesion molecule SynCAM 1 is a target for polysialylation in postnatal mouse brain. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10250-10255. | 7.1 | 148 |

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|---|---|---|---|
| 19 | Polysialylation of NCAM. Advances in Experimental Medicine and Biology, 2010, 663, 95-109. | 1.6 | 69 |
| 20 | Proteolytic Release of the Intramolecular Chaperone Domain Confers Processivity to Endosialidase F. Journal of Biological Chemistry, 2009, 284, 9465-9474. | 3.4 | 27 |
| 21 | Brain development needs sugar: the role of polysialic acid in controlling NCAM functions. Biological Chemistry, 2009, 390, 567-574. | 2.5 | 45 |
| 22 | Imbalance of neural cell adhesion molecule and polysialyltransferase alleles causes defective brain connectivity. Brain, 2009, 132, 2831-2838. | 7.6 | 73 |
| 23 | Oâ€acetyltransferase gene neuO is segregated according to phylogenetic background and contributes to environmental desiccation resistance in Escherichia coli K1. Environmental Microbiology, 2009, 11, 3154-3165. | 3.8 | 24 |
| 24 | Polysialic acid controls NCAMâ€induced differentiation of neuronal precursors into calretininâ€positive olfactory bulb interneurons. Developmental Neurobiology, 2008, 68, 1170-1184. | 3.0 | 34 |
| 25 | Polysialylation of NCAM. Neurochemical Research, 2008, , 95. | 3.3 | 8 |
| 26 | Enzyme-dependent Variations in the Polysialylation of the Neural Cell Adhesion Molecule (NCAM) in Vivo. Journal of Biological Chemistry, 2008, 283, 17-28. | 3.4 | 54 |
| 27 | Impact of the Polysialyltransferases ST8SiaII and ST8SiaIV on Polysialic Acid Synthesis during Postnatal Mouse Brain Development. Journal of Biological Chemistry, 2008, 283, 1463-1471. | 3.4 | 91 |
| 28 | Biochemical Characterization of Thepolysialic Acid-specific O-Acetyltransferase NeuO of Escherichia coli K1. Journal of Biological Chemistry, 2007, 282, 22217-22227. | 3.4 | 27 |
| 29 | Characterization of a Novel Intramolecular Chaperone Domain Conserved in Endosialidases and Other Bacteriophage Tail Spike and Fiber Proteins. Journal of Biological Chemistry, 2007, 282, 2821-2831. | 3.4 | 66 |
| 30 | The Structures of Bacteriophages K1E and K1-5 Explain Processive Degradation of Polysaccharide Capsules and Evolution of New Host Specificities. Journal of Molecular Biology, 2007, 371, 836-849. | 4.2 | 139 |
| 31 | Characterization of Oligo- and Polysialic Acids by MALDI-TOF-MS. Analytical Chemistry, 2007, 79, 7161-7169. | 6.5 | 41 |
| 32 | Dissecting polysialic acid and NCAM functions in brain development. Journal of Neurochemistry, 2007, 103, 56-64. | 3.9 | 120 |
| 33 | Evolution of bacteriophages infecting encapsulated bacteria: lessons from Escherichia coli K1-specific phages. Molecular Microbiology, 2006, 60, 1123-1135. | 2.5 | 93 |
| 34 | Polysialic Acid Profiles of Mice Expressing Variant Allelic Combinations of the Polysialyltransferases ST8SiaII and ST8SiaIV. Journal of Biological Chemistry, 2006, 281, 31605-31615. | 3.4 | 70 |
| 35 | Crystal structure of the polysialic acidâ€“degrading endosialidase of bacteriophage K1F. Nature Structural and Molecular Biology, 2005, 12, 90-96. | 8.2 | 180 |
| 36 | Genetic Ablation of Polysialic Acid Causes Severe Neurodevelopmental Defects Rescued by Deletion of the Neural Cell Adhesion Molecule. Journal of Biological Chemistry, 2005, 280, 42971-42977. | 3.4 | 262 |

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|---|---|---|---|
| 37 | Proteolytic Processing and Oligomerization of Bacteriophage-derived Endosialidases. Journal of Biological Chemistry, 2003, 278, 12634-12644. | 3.4 | 55 |
| 38 | Localization and characterization of polysialic acid-containing N-linked glycans from bovine NCAM. Glycobiology, 2002, 12, 47-63. | 2.5 | 60 |
| 39 | High affinity binding of long-chain polysialic acid to antibody, and modulation by divalent cations and polyamines. Molecular Immunology, 2002, 39, 399-411. | 2.2 | 33 |
| 40 | The Impact of N-Glycosylation on the Functions of Polysialyltransferases. Journal of Biological Chemistry, 2001, 276, 34066-34073. | 3.4 | 42 |
| 41 | Molecular Defects That Cause Loss of Polysialic Acid in the Complementation Group 2A10. Journal of Biological Chemistry, 2000, 275, 32861-32870. | 3.4 | 22 |
| 42 | Polysialic acid: three-dimensional structure, biosynthesis and function. Current Opinion in Structural Biology, 1998, 8, 558-564. | 5.7 | 169 |
| 43 | Polysialylation of NCAM by a single enzyme. Current Biology, 1996, 6, 1188-1191. | 3.9 | 76 |
| 44 | Molecular cloning and functional expression of bacteriophage PK1E-encoded endoneuraminidase Endo NE. Molecular Microbiology, 1995, 16, 441-450. | 2.5 | 75 |
| 45 | Molecular characterization of eukaryotic polysialyltransferase-1. Nature, 1995, 373, 715-718. | 27.8 | 291 |