

Rita Gerardy-Schahn

List of Publications by Citations

Source: <https://exaly.com/author-pdf/5170238/rita-gerardy-schahn-publications-by-citations.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91
papers

4,661
citations

38
h-index

67
g-index

96
ext. papers

5,107
ext. citations

7.7
avg, IF

5.23
L-index

#	Paper	IF	Citations
91	Sialic acids in the brain: gangliosides and polysialic acid in nervous system development, stability, disease, and regeneration. <i>Physiological Reviews</i> , 2014 , 94, 461-518	47.9	412
90	The gene defective in leukocyte adhesion deficiency II encodes a putative GDP-fucose transporter. <i>Nature Genetics</i> , 2001 , 28, 69-72	36.3	281
89	Molecular characterization of eukaryotic polysialyltransferase-1. <i>Nature</i> , 1995 , 373, 715-8	50.4	269
88	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, 42971-7	5.4	232
87	Polysialic acid directs tumor cell growth by controlling heterophilic neural cell adhesion molecule interactions. <i>Molecular and Cellular Biology</i> , 2003 , 23, 5908-18	4.8	158
86	Polysialic acid: three-dimensional structure, biosynthesis and function. <i>Current Opinion in Structural Biology</i> , 1998 , 8, 558-64	8.1	154
85	Crystal structure of the polysialic acid-degrading endosialidase of bacteriophage K1F. <i>Nature Structural and Molecular Biology</i> , 2005 , 12, 90-6	17.6	154
84	Polysialylated neuropilin-2 is expressed on the surface of human dendritic cells and modulates dendritic cell-T lymphocyte interactions. <i>Journal of Biological Chemistry</i> , 2007 , 282, 30346-56	5.4	141
83	Mammalian cytidine 5'-monophosphate N-acetylneuraminic acid synthetase: a nuclear protein with evolutionarily conserved structural motifs. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998 , 95, 9140-5	11.5	111
82	Dissecting polysialic acid and NCAM functions in brain development. <i>Journal of Neurochemistry</i> , 2007 , 103 Suppl 1, 56-64	6	109
81	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, 836-49	6.5	101
80	Polysialylation controls dendritic cell trafficking by regulating chemokine recognition. <i>Science</i> , 2016 , 351, 186-90	33.3	97
79	Heterogeneous expression of the polysialyltransferases ST8Sia II and ST8Sia IV during postnatal rat brain development. <i>Journal of Neurochemistry</i> , 1998 , 71, 2339-48	6	86
78	Impact of the polysialyltransferases ST8SiaII and ST8SiaIV on polysialic acid synthesis during postnatal mouse brain development. <i>Journal of Biological Chemistry</i> , 2008 , 283, 1463-1471	5.4	84
77	Membrane topology of the mammalian CMP-sialic acid transporter. <i>Journal of Biological Chemistry</i> , 1999 , 274, 8779-87	5.4	84
76	Nucleotide sugar transporters: biological and functional aspects. <i>Biochimie</i> , 2001 , 83, 775-82	4.6	82
75	Mutants of the CMP-sialic acid transporter causing the Lec2 phenotype. <i>Journal of Biological Chemistry</i> , 1998 , 273, 20189-95	5.4	82

74	Evolution of bacteriophages infecting encapsulated bacteria: lessons from Escherichia coli K1-specific phages. <i>Molecular Microbiology</i> , 2006 , 60, 1123-35	4.1	78
73	Polysialic acid: versatile modification of NCAM, SynCAM 1 and neuropilin-2. <i>Neurochemical Research</i> , 2013 , 38, 1134-43	4.6	74
72	Polysialic acid, a glycan with highly restricted expression, is found on human and murine leukocytes and modulates immune responses. <i>Journal of Immunology</i> , 2008 , 181, 6850-8	5.3	73
71	Point mutations identified in Lec8 Chinese hamster ovary glycosylation mutants that inactivate both the UDP-galactose and CMP-sialic acid transporters. <i>Journal of Biological Chemistry</i> , 2001 , 276, 26251-30073	5.4	73
70	Biochemical characterization of a Neisseria meningitidis polysialyltransferase reveals novel functional motifs in bacterial sialyltransferases. <i>Molecular Microbiology</i> , 2007 , 65, 1258-75	4.1	71
69	Molecular cloning and functional expression of bacteriophage PK1E-encoded endoneuraminidase Endo NE. <i>Molecular Microbiology</i> , 1995 , 16, 441-50	4.1	70
68	Polysialylation of NCAM by a single enzyme. <i>Current Biology</i> , 1996 , 6, 1188-91	6.3	67
67	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, 10384-98	6.6	66
66	Imbalance of neural cell adhesion molecule and polysialyltransferase alleles causes defective brain connectivity. <i>Brain</i> , 2009 , 132, 2831-8	11.2	66
65	Polysialic acid profiles of mice expressing variant allelic combinations of the polysialyltransferases ST8SialI and ST8SialIV. <i>Journal of Biological Chemistry</i> , 2006 , 281, 31605-15	5.4	64
64	Engineering of complex protein sialylation in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 9498-503	11.5	61
63	Polysialylation of NCAM. <i>Advances in Experimental Medicine and Biology</i> , 2010 , 663, 95-109	3.6	59
62	Functional expression of the murine Golgi CMP-sialic acid transporter in saccharomyces cerevisiae. <i>Journal of Biological Chemistry</i> , 1997 , 272, 12616-9	5.4	55
61	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, 2821-31	5.4	51
60	Proteolytic processing and oligomerization of bacteriophage-derived endosialidases. <i>Journal of Biological Chemistry</i> , 2003 , 278, 12634-44	5.4	50
59	CMP-sialic acid synthetase of the nucleus. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2004 , 1673, 56-65	4	48
58	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	5.4	46
57	Crystal structure of an intramolecular chaperone mediating triple-beta-helix folding. <i>Nature Structural and Molecular Biology</i> , 2010 , 17, 210-5	17.6	45

56	Large-scale production and homogenous purification of long chain polysialic acids from E. coli K1. <i>Journal of Biotechnology</i> , 2008 , 135, 202-9	3.7	39
55	Selective inhibition of polysialyltransferase ST8SialI by unnatural sialic acids. <i>Experimental Cell Research</i> , 2004 , 298, 268-74	4.2	39
54	Endoplasmic reticulum retention of the large splice variant of the UDP-galactose transporter is caused by a dilysine motif. <i>Glycobiology</i> , 2005 , 15, 905-11	5.8	38
53	Pharmacological inhibition of polysialyltransferase ST8SialI modulates tumour cell migration. <i>PLoS ONE</i> , 2013 , 8, e73366	3.7	37
52	Polysialic acid/neural cell adhesion molecule modulates the formation of ductular reactions in liver injury. <i>Hepatology</i> , 2014 , 60, 1727-40	11.2	35
51	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, 341-51	6.5	35
50	A CMP-sialic acid transporter cloned from Arabidopsis thaliana. <i>Carbohydrate Research</i> , 2008 , 343, 2148-52		35
49	Functional expression of the capsule polymerase of Neisseria meningitidis serogroup X: a new perspective for vaccine development. <i>Glycobiology</i> , 2014 , 24, 150-8	5.8	32
48	Molecular cloning and functional characterization of components of the capsule biosynthesis complex of Neisseria meningitidis serogroup A: toward in vitro vaccine production. <i>Journal of Biological Chemistry</i> , 2014 , 289, 19395-407	5.4	31
47	Engineering the product profile of a polysialyltransferase. <i>Nature Chemical Biology</i> , 2014 , 10, 437-42	11.7	30
46	Molecular retargeting of antibodies converts immune defense against oncolytic viruses into cancer immunotherapy. <i>Nature Communications</i> , 2019 , 10, 3236	17.4	29
45	Molecular cloning of the hamster CMP-sialic acid transporter. <i>FEBS Journal</i> , 1997 , 248, 187-92		28
44	Genomic organization of the murine polysialyltransferase gene ST8SialIV (PST-1). <i>Glycobiology</i> , 1998 , 8, 1165-72	5.8	26
43	Chemical synthesis and enzymatic testing of CMP-sialic acid derivatives. <i>ChemBioChem</i> , 2012 , 13, 2605-15	5.8	24
42	Proteolytic release of the intramolecular chaperone domain confers processivity to endosialidase F. <i>Journal of Biological Chemistry</i> , 2009 , 284, 9465-74	5.4	24
41	Biochemical and biophysical characterization of the sialyl-/hexosyltransferase synthesizing the meningococcal serogroup W135 heteropolysaccharide capsule. <i>Journal of Biological Chemistry</i> , 2013 , 288, 11718-30	5.4	23
40	Sialic acid is a critical fetal defense against maternal complement attack. <i>Journal of Clinical Investigation</i> , 2019 , 129, 422-436	15.9	22
39	A universal fluorescent acceptor for high-performance liquid chromatography analysis of pro- and eukaryotic polysialyltransferases. <i>Analytical Biochemistry</i> , 2012 , 427, 107-15	3.1	21

38	Comparison of polysialic acid production in Escherichia coli K1 during batch cultivation and fed-batch cultivation applying two different control strategies. <i>Journal of Biotechnology</i> , 2011 , 154, 222-237	3.7	21
37	Functional expression of the CMP-sialic acid transporter in Escherichia coli and its identification as a simple mobile carrier. <i>Glycobiology</i> , 2006 , 16, 73-81	5.8	21
36	A quaternary mechanism enables the complex biological functions of octameric human UDP-glucose pyrophosphorylase, a key enzyme in cell metabolism. <i>Scientific Reports</i> , 2015 , 5, 9618	4.9	20
35	Combined Chemical Synthesis and Tailored Enzymatic Elongation Provide Fully Synthetic and Conjugation-Ready Neisseria meningitidis Serogroup X Vaccine Antigens. <i>ACS Chemical Biology</i> , 2018 , 13, 984-994	4.9	20
34	Efficient solid-phase synthesis of meningococcal capsular oligosaccharides enables simple and fast chemoenzymatic vaccine production. <i>Journal of Biological Chemistry</i> , 2018 , 293, 953-962	5.4	20
33	A crucial role for polysialic acid in developmental interneuron migration and the establishment of interneuron densities in the mouse prefrontal cortex. <i>Development (Cambridge)</i> , 2014 , 141, 3022-32	6.6	20
32	Dissection of hexosyl- and sialyltransferase domains in the bifunctional capsule polymerases from Neisseria meningitidis W and Y defines a new sialyltransferase family. <i>Journal of Biological Chemistry</i> , 2014 , 289, 33945-57	5.4	20
31	PolySia-Specific Retargeting of Oncolytic Viruses Triggers Tumor-Specific Immune Responses and Facilitates Therapy of Disseminated Lung Cancer. <i>Cancer Immunology Research</i> , 2015 , 3, 751-63	12.5	17
30	An efficient cell free enzyme-based total synthesis of a meningococcal vaccine candidate. <i>Npj Vaccines</i> , 2016 , 1, 16017	9.5	17
29	St8sia2 deficiency plus juvenile cannabis exposure in mice synergistically affect higher cognition in adulthood. <i>Behavioural Brain Research</i> , 2014 , 275, 166-75	3.4	16
28	Structure and biochemical characterization of bacteriophage phi92 endosialidase. <i>Virology</i> , 2015 , 477, 133-143	3.6	16
27	The capsule polymerase CslB of Neisseria meningitidis serogroup L catalyzes the synthesis of a complex trimeric repeating unit comprising glycosidic and phosphodiester linkages. <i>Journal of Biological Chemistry</i> , 2015 , 290, 24355-66	5.4	14
26	Approach for Profiling of Glycosphingolipid Glycosylation by Multiplexed Capillary Gel Electrophoresis Coupled to Laser-Induced Fluorescence Detection To Identify Cell-Surface Markers of Human Pluripotent Stem Cells and Derived Cardiomyocytes. <i>Analytical Chemistry</i> , 2019 , 91, 6413-6418	7.8	13
25	Downstream processing of high chain length polysialic acid using membrane adsorbers and clay minerals for application in tissue engineering. <i>Engineering in Life Sciences</i> , 2013 , 13, 140-148	3.4	10
24	Endosialidase NF appears to bind polySia DP5 in a helical conformation. <i>ChemBioChem</i> , 2006 , 7, 1875-7	3.8	10
23	Targeting polysialic acid-abundant cancers using oncolytic adenoviruses with fibers fused to active bacteriophage borne endosialidase. <i>Biomaterials</i> , 2018 , 158, 86-94	15.6	10
22	A high-throughput screen for polysialyltransferase activity. <i>Analytical Biochemistry</i> , 2012 , 427, 60-8	3.1	9
21	Structure analysis of endosialidase NF at 0.98 Å resolution. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2010 , 66, 176-80		9

20	A New Family of Capsule Polymerases Generates Teichoic Acid-Like Capsule Polymers in Gram-Negative Pathogens. <i>MBio</i> , 2018 , 9,	7.8	9
19	Environmental enrichment rescues memory in mice deficient for the polysialyltransferase ST8SialV. <i>Brain Structure and Function</i> , 2016 , 221, 1591-605	4	8
18	A patient-specific induced pluripotent stem cell model for West syndrome caused by ST3GAL3 deficiency. <i>European Journal of Human Genetics</i> , 2018 , 26, 1773-1783	5.3	8
17	Decoding Allosteric Networks in Biocatalysts: Rational Approach to Therapies and Biotechnologies. <i>ACS Catalysis</i> , 2018 , 8, 2683-2692	13.1	7
16	A single amino acid toggles Escherichia coli polysialyltransferases between mono- and bifunctionality. <i>Glycobiology</i> , 2013 , 23, 613-8	5.8	7
15	A sweet development in Notch regulation. <i>Journal of Biological Chemistry</i> , 2017 , 292, 15974-15975	5.4	6
14	Intrabodies against the Polysialyltransferases ST8SialI and ST8SialIV inhibit Polysialylation of NCAM in rhabdomyosarcoma tumor cells. <i>BMC Biotechnology</i> , 2017 , 17, 42	3.5	6
13	Exploring and Exploiting Acceptor Preferences of the Human Polysialyltransferases as a Basis for an Inhibitor Screen. <i>ChemBioChem</i> , 2017 , 18, 1332-1337	3.8	5
12	Defining a substrate-binding model of a polysialyltransferase. <i>ChemBioChem</i> , 2013 , 14, 1949-53	3.8	5
11	Retargeted oncolytic viruses provoke tumor-directed T-cell responses. <i>Oncotarget</i> , 2015 , 4, e1052933	9.33	5
10	Exclusive Decoration of Simian Immunodeficiency Virus Env with High-Mannose Type N-Glycans Is Not Compatible with Mucosal Transmission in Rhesus Macaques. <i>Journal of Virology</i> , 2015 , 89, 11727-33	6.6	4
9	An enzyme-based protocol for cell-free synthesis of nature-identical capsular oligosaccharides from serotype 1. <i>Journal of Biological Chemistry</i> , 2020 , 295, 5771-5784	5.4	2
8	Mix-and-Match System for the Enzymatic Synthesis of Enantiopure Glycerol-3-Phosphate-Containing Capsule Polymer Backbones from , , and. <i>MBio</i> , 2021 , 12, e0089721	7.8	2
7	SialoGlyco Chemistry and Biology I. <i>Topics in Current Chemistry</i> , 2015 ,		1
6	Differential expression patterns of glycosphingolipids and C-type lectin receptors on immune cells in absence of functional regulatory T cells. <i>Immunity, Inflammation and Disease</i> , 2020 , 8, 512-522	2.4	1
5	Accelerated production of α ,8- and α ,9-linked polysialic acid in recombinant using high cell density cultivation. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2020 , 28, e00562	5.3	
4	A single-step transconjugation system for gene deletion in <i>Aggregatibacter actinomycetemcomitans</i> . <i>Journal of Microbiological Methods</i> , 2018 , 148, 74-77	2.8	
3	Think small [Methoden zur in vitro-Evolution von Polymerasen. <i>BioSpektrum</i> , 2015 , 21, 278-280	0.1	

2 Polysialinsäure – Ein Zucker reguliert die Hirnentwicklung. *BioSpektrum*, **2012**, 18, 26-29 0.1

1 A Novel Clinical Syndrome Associating Severe Congenital Neutropenia and Complex Developmental Aberrations Caused by Deficiency of G6PC3. *Blood*, **2008**, 112, 5-5 2.2