Markus Aebi

List of Publications by Year
in descending order

101 papers	12,973 citations	31902 53 h-index	34900 98 g-index
103 all docs	103 docs citations	103 times ranked	11059 citing authors

#	Article	IF	Citations
1	Structureâ€“function relationship of a novel fucoside-binding fruiting body lectin from <i>Coprinopsis cinerea</i> exhibiting nematotoxic activity. Glycobiology, 2022, , .	1.3	2
2	Glycanâ€“protein interactions determine kinetics of <i>N</i>-glycan remodeling. RSC Chemical Biology, 2021, 2, 917-931.	2.0	16
3	Substrate specificities and reaction kinetics of the yeast oligosaccharyltransferase isoforms. Journal of Biological Chemistry, 2021, 296, 100809.	1.6	6
4	N-Glycosylation Enhances Conformational Flexibility of Protein Disulfide Isomerase Revealed by Microsecond Molecular Dynamics and Markov State Modeling. Journal of Physical Chemistry B, 2021, 125, 9467-9479.	1.2	16
5	Functional analysis of Ost3p and Ost6p containing yeast oligosaccharyltransferases. Glycobiology, 2021, 31, 1604-1615.	1.3	4
6	Architecture and function of human uromodulin filaments in urinary tract infections. Science, 2020, 369, 1005-1010.	6.0	81
7	Structure and mechanism of the ER-based glucosyltransferase ALG6. Nature, 2020, 579, 443-447.	13.7	52
8	Cytoplasmic glycoengineering enables biosynthesis of nanoscale glycoprotein assemblies. Nature Communications, 2019, 10, 5403.	5.8	36
9	Mechanistic reconstruction of glycoprotein secretion through monitoring of intracellular N-glycan processing. Science Advances, 2019, 5, eaax8930.	4.7	36
10	Bidirectional Propagation of Signals and Nutrients in Fungal Networks via Specialized Hyphae. Current Biology, 2019, 29, 217-228.e4.	1.8	82
11	Induction of antibacterial proteins and peptides in the coprophilous mushroom <i>Coprinopsis cinerea</i> in response to bacteria. ISME Journal, 2019, 13, 588-602.	4.4	60
12	SnapShot: O-Glycosylation Pathways across Kingdoms. Cell, 2018, 172, 632-632.e2.	13.5	72
13	Structure of the yeast oligosaccharyltransferase complex gives insight into eukaryotic N-glycosylation. Science, 2018, 359, 545-550.	6.0	157
14	Quantitative Profiling of N-linked Glycosylation Machinery in Yeast Saccharomyces cerevisiae. Molecular and Cellular Proteomics, 2018, 17, 18-30.	2.5	27
15	A molecular mechanism for the enzymatic methylation of nitrogen atoms within peptide bonds. Science Advances, 2018, 4, eaat2720.	4.7	48
16	The genomes of Crithidia bombi and C. expoeki, common parasites of bumblebees. PLoS ONE, 2018, 13, e0189738.	1.1	26
17	Precisely heterogeneous â€•the making of Nâ€glycoproteins. FASEB Journal, 2018, 32, 249.1.	0.2	0
18	The <i>N</i> -linking glycosylation system from <i>Actinobacillus pleuropneumoniae</i> is required for adhesion and has potential use in glycoengineering. Open Biology, 2017, 7, 160212.	1.5	29

#	Article	IF	Citations
19	Chemo-enzymatic synthesis of lipid-linked GlcNAc2Man5 oligosaccharides using recombinant Alg1, Alg2 and Alg11 proteins. Glycobiology, 2017, 27, 726-733.	1.3	33
20	Molecular basis of lipid-linked oligosaccharide recognition and processing by bacterial oligosaccharyltransferase. Nature Structural and Molecular Biology, 2017, 24, 1100-1106.	3.6	68
21	A biosynthetic route for polysialylating proteins in Escherichia coli. Metabolic Engineering, 2017, 44, 293-301.	3.6	31
22	Analysis of substrate specificity of Trypanosoma brucei oligosaccharyltransferases (OSTs) by functional expression of domain-swapped chimeras in yeast. Journal of Biological Chemistry, 2017, 292, 20342-20352.	1.6	8
23	Engineering protein glycosylation in prokaryotes. Current Opinion in Systems Biology, 2017, 5, 23-31.	1.3	26
24	Characterization of the single-subunit oligosaccharyltransferase STT3A from Trypanosoma brucei using synthetic peptides and lipid-linked oligosaccharide analogs. Glycobiology, 2017, 27, 525-535.	1.3	31
25	Influence of protein/glycan interaction on siteâ€specific glycan heterogeneity. FASEB Journal, 2017, 31, 4623-4635.	0.2	37
26	Supercharging Reagent for Enhanced Liquid Chromatographic Separation and Charging of Sialylated and High-Molecular-Weight Glycopeptides for NanoHPLCâ€“ESI-MS/MS Analysis. Analytical Chemistry, 2016, 88, 8484-8494.	3.2	13
27	Mapping the O-Mannose Glycoproteome in Saccharomyces cerevisiae. Molecular and Cellular Proteomics, 2016, 15, 1323-1337.	2.5	61
28	Structural characterization of the N-linked pentasaccharide decorating glycoproteins of the halophilic archaeon<i>Haloferax volcanii</i>. Glycobiology, 2016, 26, 745-756.	1.3	35
29	Posttranslational Modifications of Intact Proteins Detected by NMR Spectroscopy: Application to Glycosylation. Angewandte Chemie - International Edition, 2015, 54, 7096-7100.	7.2	48
30	Inhibition of Haemonchus contortus larval development by fungal lectins. Parasites and Vectors, 2015, 8, 425.	1.0	42
31	Parasite Glycobiology: A Bittersweet Symphony. PLoS Pathogens, 2015, 11, e1005169.	2.1	40
32	Disruption of the C. elegans Intestinal Brush Border by the Fungal Lectin CCL2 Phenocopies Dietary Lectin Toxicity in Mammals. PLoS ONE, 2015, 10, e0129381.	1.1	37
33	An enzyme-based screening system for the rapid assessment of protein N-glycosylation efficiency in yeast. Glycobiology, 2015, 25, 252-257.	1.3	6
34	The interplay of Hrd3 and the molecular chaperone system ensures efficient degradation of malfolded secretory proteins. Molecular Biology of the Cell, 2015, 26, 185-194.	0.9	32
35	Glycosylation profiles determine extravasation and disease-targeting properties of armed antibodies. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 2000-2005.	3.3	36
36	Analysis of site-specific<i>N</i>-glycan remodeling in the endoplasmic reticulum and the Golgi. Glycobiology, 2015, 25, 1335-1349.	1.3	60

#	Article	IF	Citations
37	Protein degradation corrects for imbalanced subunit stoichiometry in OST complex assembly. Molecular Biology of the Cell, 2015, 26, 2596-2608.	0.9	49
38	Symbol Nomenclature for Graphical Representations of Glycans. Glycobiology, 2015, 25, 1323-1324.	1.3	818
39	Structure and mechanism of an active lipid-linked oligosaccharide flippase. Nature, 2015, 524, 433-438.	13.7	184
40	Current Approaches to Engineering N-Linked Protein Glycosylation in Bacteria. Methods in Molecular Biology, 2015, 1321, 3-16.	0.4	14
41	Substrate Specificity of Cytoplasmic N-Glycosyltransferase. Journal of Biological Chemistry, 2014, 289, 24521-24532.	1.6	48
42	Structural Basis of Substrate Specificity of Human Oligosaccharyl Transferase Subunit N33/Tusc3 and Its Role in Regulating Protein N-Glycosylation. Structure, 2014, 22, 590-601.	1.6	78
43	Copsin, a Novel Peptide-based Fungal Antibiotic Interfering with the Peptidoglycan Synthesis. Journal of Biological Chemistry, 2014, 289, 34953-34964.	1.6	125
44	Protein O-Mannosyltransferases Associate with the Translocon to Modify Translocating Polypeptide Chains. Journal of Biological Chemistry, 2014, 289, 8599-8611.	1.6	18
45	Methylated glycans as conserved targets of animal and fungal innate defense. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2787-96.	3.3	74
46	Molecular Analysis of an Alternative N-Glycosylation Machinery by Functional Transfer from Actinobacillus pleuropneumoniae to Escherichia coli. Journal of Biological Chemistry, 2014, 289, 2170-2179.	1.6	70
47	N-LINKED PROTEIN GLYCOSYLATION. , 2014, , .		0
48	N-Linked Protein Glycosylation in Campylobacter. , 2014, , 445-469.		4
49	Unexpected reactivity and mechanism of carboxamide activation in bacterial N-linked protein glycosylation. Nature Communications, 2013, 4, 2627.	5.8	53
50	N-Linked Protein Glycosylation in the Endoplasmic Reticulum. Cold Spring Harbor Perspectives in Biology, 2013, 5, a013359-a013359.	2.3	209
51	N-linked protein glycosylation in the ER. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 2430-2437.	1.9	561
52	A two-step enzymatic glycosylation of polypeptides with complex N -glycans. Bioorganic and Medicinal Chemistry, 2013, 21, 2262-2270.	1.4	56
53	Eukaryotic Oligosaccharyltransferase Generates Free Oligosaccharides during N-Glycosylation. Journal of Biological Chemistry, 2013, 288, 32673-32684.	1.6	45
54	Mechanism of Bacterial Oligosaccharyltransferase. Journal of Biological Chemistry, 2013, 288, 8849-8861.	1.6	72

#	Article	IF	Citations
55	Plasticity of the Î²-Trefoil Protein Fold in the Recognition and Control of Invertebrate Predators and Parasites by a Fungal Defence System. PLoS Pathogens, 2012, 8, e1002706.	2.1	65
56	Galactosylated Fucose Epitopes in Nematodes. Journal of Biological Chemistry, 2012, 287, 28276-28290.	1.6	43
57	An engineered eukaryotic protein glycosylation pathway in Escherichia coli. Nature Chemical Biology, 2012, 8, 434-436.	3.9	232
58	Nematotoxicity of Marasmius oreades Agglutinin (MOA) Depends on Glycolipid Binding and Cysteine Protease Activity. Journal of Biological Chemistry, 2011, 286, 30337-30343.	1.6	42
59	X-ray structure of a bacterial oligosaccharyltransferase. Nature, 2011, 474, 350-355.	13.7	323
60	A Complex of Pdi1p and the Mannosidase Htm1p Initiates Clearance of Unfolded Glycoproteins from the Endoplasmic Reticulum. Molecular Cell, 2011, 42, 782-793.	4.5	104
61	Mechanisms and principles of N-linked protein glycosylation. Current Opinion in Structural Biology, 2011, 21, 576-582.	2.6	567
62	Oligosaccharyltransferase: the central enzyme of Nâ€linked protein glycosylation. Journal of Inherited Metabolic Disease, 2011, 34, 869-878.	1.7	170
63	Cytoplasmic N-Glycosyltransferase of Actinobacillus pleuropneumoniae Is an Inverting Enzyme and Recognizes the NX(S/T) Consensus Sequence. Journal of Biological Chemistry, 2011, 286, 35267-35274.	1.6	77
64	N-glycan structures: recognition and processing in the ER. Trends in Biochemical Sciences, 2010, 35, 74-82.	3.7	404
65	Caenorhabditis elegans N-glycan Core Î²-galactoside Confers Sensitivity towards Nematotoxic Fungal Galectin CGL2. PLoS Pathogens, 2010, 6, e1000717.	2.1	95
66	Biotoxicity Assays for Fruiting Body Lectins and Other Cytoplasmic Proteins. Methods in Enzymology, 2010, 480, 141-150.	0.4	21
67	Oxidoreductase activity of oligosaccharyltransferase subunits Ost3p and Ost6p defines site-specific glycosylation efficiency. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11061-11066.	3.3	117
68	Htm1 protein generates the N-glycan signal for glycoprotein degradation in the endoplasmic reticulum. Journal of Cell Biology, 2009, 184, 159-172.	2.3	219
69	Molecular Basis for Galactosylation of Core Fucose Residues in Invertebrates. Journal of Biological Chemistry, 2009, 284, 36223-36233.	1.6	48
70	Analysis of Glycosylation Site Occupancy Reveals a Role for Ost3p and Ost6p in Site-specific N-Glycosylation Efficiency. Molecular and Cellular Proteomics, 2009, 8, 357-364.	2.5	82
71	Distinct donor and acceptor specificities of Trypanosoma brucei oligosaccharyltransferases. EMBO Journal, 2009, 28, 2650-2661.	3.5	96
72	Helenius et al. reply. Nature, 2008, 454, E4-E5.	13.7	7

#	Article	IF	Citations
73	Structural Basis for Chitotetraose Coordination by CGL3, a Novel Galectin-Related Protein from Coprinopsis cinerea. Journal of Molecular Biology, 2008, 379, 146-159.	2.0	53
74	All in One:<i>Leishmania major</i>STT3 Proteins Substitute for the Whole Oligosaccharyltransferase Complex in<i>Saccharomyces cerevisiae</i>. Molecular Biology of the Cell, 2008, 19, 3758-3768.	0.9	74
75	N-Linked Glycosylation of Folded Proteins by the Bacterial Oligosaccharyltransferase. Science, 2006, 314, 1148-1150.	6.0	210
76	Definition of the bacterial N-glycosylation site consensus sequence. EMBO Journal, 2006, 25, 1957-1966.	3.5	314
77	The N-glycosylation defect of cwh8Î” yeast cells causes a distinct defect in sphingolipid biosynthesis. Glycobiology, 2006, 16, 155-164.	1.3	21
78	Targeted Gene Silencing in the Model Mushroom Coprinopsis cinerea (Coprinus cinereus) by Expression of Homologous Hairpin RNAs. Eukaryotic Cell, 2006, 5, 732-744.	3.4	73
79	Substrate specificity of bacterial oligosaccharyltransferase suggests a common transfer mechanism for the bacterial and eukaryotic systems. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7088-7093.	3.3	177
80	Altered glycan structures: the molecular basis of congenital disorders of glycosylation. Current Opinion in Structural Biology, 2005, 15, 490-498.	2.6	227
81	Engineering N-linked protein glycosylation with diverse O antigen lipopolysaccharide structures in Escherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3016-3021.	3.3	384
82	ALG9 mannosyltransferase is involved in two different steps of lipid-linked oligosaccharide biosynthesis. Glycobiology, 2005, 15, 1156-1163.	1.3	55
83	The 3.4-kDa Ost4 protein is required for the assembly of two distinct oligosaccharyltransferase complexes in yeast. Glycobiology, 2005, 15, 1396-1406.	1.3	59
84	Biosynthesis of Lipid-linked Oligosaccharides in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2005, 280, 34500-34506.	1.6	60
85	Ligand interactions of the Coprinopsis cinerea galectins. Fungal Genetics and Biology, 2005, 42, 293-305.	0.9	27
86	Structure and Functional Analysis of the Fungal Galectin CGL2. Structure, 2004, 12, 689-702.	1.6	107
87	Roles of N-Linked Glycans in the Endoplasmic Reticulum. Annual Review of Biochemistry, 2004, 73, 1019-1049.	5.0	1,789
88	N-Linked Glycosylation in Campylobacter jejuni and Its Functional Transfer into E. coli. Science, 2002, 298, 1790-1793.	6.0	716
89	Transmembrane movement of dolichol linked carbohydrates during N-glycoprotein biosynthesis in the endoplasmic reticulum. Seminars in Cell and Developmental Biology, 2002, 13, 171-178.	2.3	71
90	Translocation of lipid-linked oligosaccharides across the ER membrane requires Rft1 protein. Nature, 2002, 415, 447-450.	13.7	240

#	Article	IF	Citations
91	Htm1p, a mannosidaseâ€like protein, is involved in glycoprotein degradation in yeast. EMBO Reports, 2001, 2, 423-430.	2.0	234
92	Multi-allelic origin of congenital disorder of glycosylation (CDG)-Ic. Human Genetics, 2000, 106, 538-545.	1.8	25
93	Fruiting body development in Coprinus cinereus: regulated expression of two galectins secreted by a non-classical pathway The GenBank accession number for the sequence reported in this paper is AF130360. Microbiology (United Kingdom), 2000, 146, 1841-1853.	0.7	104
94	Multi-allelic origin of congenital disorder of glycosylation (CDG)-Ic. Human Genetics, 2000, 106, 538-545.	1.8	62
95	The dolichol pathway of N-linked glycosylation. Biochimica Et Biophysica Acta - General Subjects, 1999, 1426, 239-257.	1.1	556
96	The Saccharomyces cerevisiae CWH8 gene is required for full levels of dolichol-linked oligosaccharides in the endoplasmic reticulum and for efficient N-glycosylation. Glycobiology, 1999, 9, 243-253.	1.3	32
97	Degradation of Misfolded Endoplasmic Reticulum Glycoproteins in Saccharomyces cerevisiae Is Determined by a Specific Oligosaccharide Structure. Journal of Cell Biology, 1998, 142, 1223-1233.	2.3	324
98	Genetic tailoring of N-linked oligosaccharides: The role of glucose residues in glycoprotein processing of Saccharomyces cerevisiae in vivo. Glycobiology, 1998, 8, 155-164.	1.3	82
99	Cloning and characterization of the ALG3 gene of Saccharomyces cerevisiae. Glycobiology, 1996, 6, 439-444.	1.3	121
100	Isolation of the ALG6 locus of Saccharomyces cerevisiae required for glucosylation in the N-linked glycosylation pathway. Glycobiology, 1996, 6, 493-498.	1.3	94
101	Isolation of the ALG5 Locus Encoding the UDP-Glucose:Dolichyl-Phosphate Glucosyltransferase from Saccharomyces cerevisiae. FEBS Journal, 1994, 224, 71-79.	0.2	97