Thomas A Gerken

List of Publications by Year in Descending Order

59 papers	2,898 citations	31 h-index	53 g-index
60 ext. papers	3,180 ext. citations	5.5 avg, IF	4.87 L-index

#	Paper	IF	Citations
59	ISOGlyP: de novo prediction of isoform-specific mucin-type O-glycosylation. *Glycobiology*, **2021**, 31, 168-178	5.8	12
58	Molecular basis for fibroblast growth factor 23 O-glycosylation by GalNAc-T3. *Nature Chemical Biology*, **2020**, 16, 351-360	11.7	28
57	Differential splicing of the lectin domain of an -glycosyltransferase modulates both peptide and glycopeptide preferences. *Journal of Biological Chemistry*, **2020**, 295, 12525-12536	5.4	2
56	Predicting mucin-type O-Glycosylation using enhancement value products from derived protein features. *Journal of Theoretical and Computational Chemistry*, **2020**, 19,	1.8	2
55	Ser and Thr acceptor preferences of the GalNAc-Ts vary among isoenzymes to modulate mucin-type O-glycosylation. *Glycobiology*, **2020**, 30, 910-922	5.8	12
54	Two Hands Grip Better Than One for Tight Binding and Specificity: How a Phage Endolysin Fits into the Cell Wall of Its Host. *Structure*, **2019**, 27, 1350-1352	5.2	1
53	Polypeptide GalNAc-Ts: from redundancy to specificity. *Current Opinion in Structural Biology*, **2019**, 56, 87-96	8.1	43
52	Human red and green cone opsins are -glycosylated at an N-terminal Ser/Thr-rich domain conserved in vertebrates. *Journal of Biological Chemistry*, **2019**, 294, 8123-8133	5.4	5
51	The structure of the colorectal cancer-associated enzyme GalNAc-T12 reveals how nonconserved residues dictate its function. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 20404-20410	11.5	12
50	Comprehensive plasma and tissue profiling reveals systemic metabolic alterations in cardiac hypertrophy and failure. *Cardiovascular Research*, **2019**, 115, 1296-1305	9.9	15
49	Tn and STn are members of a family of carbohydrate tumor antigens that possess carbohydrate-carbohydrate interactions. *Glycobiology*, **2018**, 28, 437-442	5.8	10
48	Evidence for GALNT12 as a moderate penetrance gene for colorectal cancer. *Human Mutation*, **2018** , 39, 1092-1101	4.7	12
47	Structural and Mechanistic Insights into the Catalytic-Domain-Mediated Short-Range Glycosylation Preferences of GalNAc-T4. *ACS Central Science*, **2018**, 4, 1274-1290	16.8	28
46	Revisiting the human polypeptide GalNAc-T1 and T13 paralogs. *Glycobiology*, **2017**, 27, 140-153	5.8	8
45	The interdomain flexible linker of the polypeptide GalNAc transferases dictates their long-range glycosylation preferences. *Nature Communications*, **2017**, 8, 1959	17.4	26
44	Biochemical and functional characterization of glycosylation-associated mutational landscapes in colon cancer. *Scientific Reports*, **2016**, 6, 23642	4.9	33
43	Interactions of mucins with the Tn or Sialyl Tn cancer antigens including MUC1 are due to GalNAc-GalNAc interactions. *Glycobiology*, **2016**, 26, 1338-1350	5.8	8

42	Mucin-type O-glycosylation is controlled by short- and long-range glycopeptide substrate recognition that varies among members of the polypeptide GalNAc transferase family. *Glycobiology* , **2016**, 26, 360-76	5.8	56
41	Single molecule study of heterotypic interactions between mucins possessing the Tn cancer antigen. *Glycobiology*, **2015**, 25, 524-34	5.8	5
40	Probing polypeptide GalNAc-transferase isoform substrate specificities by in vitro analysis. *Glycobiology*, **2015**, 25, 55-65	5.8	72
39	The lectin domain of the polypeptide GalNAc transferase family of glycosyltransferases (ppGalNAc Ts) acts as a switch directing glycopeptide substrate glycosylation in an N- or C-terminal direction, further controlling mucin type O-glycosylation. *Journal of Biological Chemistry*, **2013**, 288, 19900-14	5.4	56
38	Enhanced self-association of mucins possessing the T and Tn carbohydrate cancer antigens at the single-molecule level. *Biomacromolecules*, **2012**, 13, 1400-9	6.9	17
37	UDP-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferases: completion of the family tree. *Glycobiology*, **2012**, 22, 768-77	5.8	57
36	Control of mucin-type O-glycosylation: a classification of the polypeptide GalNAc-transferase gene family. *Glycobiology*, **2012**, 22, 736-56	5.8	529
35	O-glycoprotein biosynthesis: site localization by Edman degradation and site prediction based on random peptide substrates. *Methods in Molecular Biology*, **2012**, 842, 81-108	1.4	3
34	Emerging paradigms for the initiation of mucin-type protein O-glycosylation by the polypeptide GalNAc transferase family of glycosyltransferases. *Journal of Biological Chemistry*, **2011**, 286, 14493-507	5.4	121
33	Isoform-specific O-glycosylation of osteopontin and bone sialoprotein by polypeptide N-acetylgalactosaminyltransferase-1. *Journal of Biological Chemistry*, **2010**, 285, 1208-19	5.4	32
32	Glycopeptide-preferring polypeptide GalNAc transferase 10 (ppGalNAc T10), involved in mucin-type O-glycosylation, has a unique GalNAc-O-Ser/Thr-binding site in its catalytic domain not found in ppGalNAc T1 or T2. *Journal of Biological Chemistry*, **2009**, 284, 20387-97	5.4	44
31	Systematic determination of the peptide acceptor preferences for the human UDP-Gal:glycoprotein-alpha-GalNAc beta 3 galactosyltransferase (T-synthase). *Glycobiology*, **2009**, 19, 321-8	5.8	22
30	Inactivating germ-line and somatic mutations in polypeptide N-acetylgalactosaminyltransferase 12 in human colon cancers. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 12921-5	11.5	112
29	Single-molecule pair studies of the interactions of the alpha-GalNAc (Tn-antigen) form of porcine submaxillary mucin with soybean agglutinin. *Biopolymers*, **2009**, 91, 719-28	2.2	24
28	Thermodynamics of multivalent carbohydrate-lectin cross-linking interactions: importance of entropy in the bind and jump mechanism. *Biochemistry*, **2009**, 48, 3822-7	3.2	88
27	The catalytic and lectin domains of UDP-GalNAc:polypeptide alpha-N-Acetylgalactosaminyltransferase function in concert to direct glycosylation site selection. *Journal of Biological Chemistry*, **2008**, 283, 22942-51	5.4	65
26	Conservation of peptide acceptor preferences between Drosophila and mammalian polypeptide-GalNAc transferase ortholog pairs. *Glycobiology*, **2008**, 18, 861-70	5.8	44
25	Binding studies of alpha-GalNAc-specific lectins to the alpha-GalNAc (Tn-antigen) form of porcine submaxillary mucin and its smaller fragments. *Journal of Biological Chemistry*, **2007**, 282, 28256-63	5.4	75

24	Quantification of human beta-defensin-2 and -3 in body fluids: application for studies of innate immunity. *Clinical Chemistry*, **2007**, 53, 757-65	5.5	56
23	Identification of common and unique peptide substrate preferences for the UDP-GalNAc:polypeptide alpha-N-acetylgalactosaminyltransferases T1 and T2 derived from oriented random peptide substrates. *Journal of Biological Chemistry*, **2006**, 281, 32403-16	5.4	77
22	Deconvoluting the functions of polypeptide N-alpha-acetylgalactosaminyltransferase family members by glycopeptide substrate profiling. *Chemistry and Biology*, **2004**, 11, 1009-16		80
21	Kinetic modeling confirms the biosynthesis of mucin core 1 (beta-Gal(1-3) alpha-GalNAc-O-Ser/Thr) O-glycan structures are modulated by neighboring glycosylation effects. *Biochemistry*, **2004**, 43, 4137-42	3.2	33
20	Role of peptide sequence and neighboring residue glycosylation on the substrate specificity of the uridine 5'-diphosphate-alpha-N-acetylgalactosamine:polypeptide N-acetylgalactosaminyl transferases T1 and T2: kinetic modeling of the porcine and canine submaxillary gland mucin tandem repeats. *Biochemistry*, **2004**, 43, 9888-900	3.2	38
19	Functional characterization and expression analysis of members of the UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase family from Drosophila melanogaster. *Journal of Biological Chemistry*, **2003**, 278, 35039-48	5.4	72
18	Determination of the site-specific oligosaccharide distribution of the O-glycans attached to the porcine submaxillary mucin tandem repeat. Further evidence for the modulation of O-glycans side chain structures by peptide sequence. *Journal of Biological Chemistry*, **2002**, 277, 7736-51	5.4	34
17	Mucin core O-glycosylation is modulated by neighboring residue glycosylation status. Kinetic modeling of the site-specific glycosylation of the apo-porcine submaxillary mucin tandem repeat by UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferases T1 and T2. *Journal of Biological*	5.4	32
16	A short segment of the R domain of cystic fibrosis transmembrane conductance regulator contains channel stimulatory and inhibitory activities that are separable by sequence modification. *Journal of Biological Chemistry*, **2002**, 277, 23019-27	5.4	26
15	A macrophage invasion mechanism for mycobacteria implicating the extracellular domain of CD43. *Journal of Experimental Medicine*, **2000**, 192, 183-92	16.6	43
14	Site-specific core 1 O-glycosylation pattern of the porcine submaxillary gland mucin tandem repeat. Evidence for the modulation of glycan length by peptide sequence. *Journal of Biological Chemistry*, **1998**, 273, 26580-8	5.4	36
13	Determination of the site-specific O-glycosylation pattern of the porcine submaxillary mucin tandem repeat glycopeptide. Model proposed for the polypeptide:galnac transferase peptide binding site. *Journal of Biological Chemistry*, **1997**, 272, 9709-19	5.4	73
12	Effect of Lipids on the Structure and Rheology of Gels Formed by Canine Submaxillary Mucin. *Biorheology*, **1997**, 34, 295-308	1.7	8
11	Rheological studies of the interaction of mucins with alginate and polyacrylate. *Carbohydrate Research*, **1996**, 284, 85-99	2.9	31
10	A recombinant peptide model of the first nucleotide-binding fold of the cystic fibrosis transmembrane conductance regulator: comparison of wild-type and delta F508 mutant forms. *Protein Science*, **1996**, 5, 89-97	6.3	23
9	A novel approach for chemically deglycosylating O-linked glycoproteins. The deglycosylation of submaxillary and respiratory mucins. *Biochemistry*, **1992**, 31, 639-48	3.2	77
8	Myocardial protection during ischemia by prior feeding with the creatine analog: cyclocreatine. *Journal of the American College of Cardiology*, **1989**, 14, 246-51	15.1	7
7	Effects of glycosylation on the conformation and dynamics of O-linked glycoproteins: carbon-13 NMR studies of ovine submaxillary mucin. *Biochemistry*, **1989**, 28, 5536-43	3.2	143

6	Role of glycosylation on the conformation and chain dimensions of O-linked glycoproteins: light-scattering studies of ovine submaxillary mucin. *Biochemistry*, **1989**, 28, 5525-36	3.2	217
5	Light-scattering studies of fractionated ovine submaxillary mucins. *Carbohydrate Research*, **1987**, 160, 317-27	2.9	27
4	The solution structure of mucous glycoproteins: proton NMR studies of native and modified ovine submaxillary mucin. *Archives of Biochemistry and Biophysics*, **1986**, 247, 239-53	4.1	30
3	Carbon-13 NMR studies of native and modified ovine submaxillary mucin. *Biochemistry*, **1984**, 23, 1485-97	3.2	41
2	Methylene carbon resonance spectra of epimerized isotactic polystyrene. *Polymer Bulletin*, **1980**, 2, 37-42	2.4	11
1	Detection of intramolecular interactions of lysyl and N-terminal amino groups of reductively methylated proteins by C nuclear magnetic resonance. *Biophysical Journal*, **1980**, 32, 97-9	2.9	2