

# Thomas A Gerken

## List of Publications by Citations

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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	Control of mucin-type O-glycosylation: a classification of the polypeptide GalNAc-transferase gene family. <i>Glycobiology</i> , <b>2012</b> , 22, 736-56	5.8	529
58	Role of glycosylation on the conformation and chain dimensions of O-linked glycoproteins: light-scattering studies of ovine submaxillary mucin. <i>Biochemistry</i> , <b>1989</b> , 28, 5525-36	3.2	217
57	Effects of glycosylation on the conformation and dynamics of O-linked glycoproteins: carbon-13 NMR studies of ovine submaxillary mucin. <i>Biochemistry</i> , <b>1989</b> , 28, 5536-43	3.2	143
56	Emerging paradigms for the initiation of mucin-type protein O-glycosylation by the polypeptide GalNAc transferase family of glycosyltransferases. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 14493-507	5.4	121
55	Inactivating germ-line and somatic mutations in polypeptide N-acetylgalactosaminyltransferase 12 in human colon cancers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 12921-5	11.5	112
54	Thermodynamics of multivalent carbohydrate-lectin cross-linking interactions: importance of entropy in the bind and jump mechanism. <i>Biochemistry</i> , <b>2009</b> , 48, 3822-7	3.2	88
53	Deconvoluting the functions of polypeptide N-alpha-acetylgalactosaminyltransferase family members by glycopeptide substrate profiling. <i>Chemistry and Biology</i> , <b>2004</b> , 11, 1009-16		80
52	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. <i>Journal of Biological Chemistry</i> , <b>2006</b> , 281, 32403-16	5.4	77
51	A novel approach for chemically deglycosylating O-linked glycoproteins. The deglycosylation of submaxillary and respiratory mucins. <i>Biochemistry</i> , <b>1992</b> , 31, 639-48	3.2	77
50	Binding studies of alpha-GalNAc-specific lectins to the alpha-GalNAc (Tn-antigen) form of porcine submaxillary mucin and its smaller fragments. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 28256-63	5.4	75
49	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. <i>Journal of Biological Chemistry</i> , <b>1997</b> , 272, 9709-19	5.4	73
48	Probing polypeptide GalNAc-transferase isoform substrate specificities by in vitro analysis. <i>Glycobiology</i> , <b>2015</b> , 25, 55-65	5.8	72
47	Functional characterization and expression analysis of members of the UDP-GalNAc:polypeptide N-acetylgalactosaminyltransferase family from <i>Drosophila melanogaster</i> . <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 35039-48	5.4	72
46	The catalytic and lectin domains of UDP-GalNAc:polypeptide alpha-N-Acetylgalactosaminyltransferase function in concert to direct glycosylation site selection. <i>Journal of Biological Chemistry</i> , <b>2008</b> , 283, 22942-51	5.4	65
45	UDP-N-acetyl-D-galactosamine:polypeptide N-acetylgalactosaminyltransferases: completion of the family tree. <i>Glycobiology</i> , <b>2012</b> , 22, 768-77	5.8	57
44	Mucin-type O-glycosylation is controlled by short- and long-range glycopeptide substrate recognition that varies among members of the polypeptide GalNAc transferase family. <i>Glycobiology</i> , <b>2016</b> , 26, 360-76	5.8	56
43	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. <i>Journal of Biological Chemistry</i> , <b>2013</b> , 288, 19900-14	5.4	56

42	Quantification of human beta-defensin-2 and -3 in body fluids: application for studies of innate immunity. <i>Clinical Chemistry</i> , <b>2007</b> , 53, 757-65	5.5	56
41	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. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 20387-97	5.4	44
40	Conservation of peptide acceptor preferences between Drosophila and mammalian polypeptide-GalNAc transferase ortholog pairs. <i>Glycobiology</i> , <b>2008</b> , 18, 861-70	5.8	44
39	Polypeptide GalNAc-Ts: from redundancy to specificity. <i>Current Opinion in Structural Biology</i> , <b>2019</b> , 56, 87-96	8.1	43
38	A macrophage invasion mechanism for mycobacteria implicating the extracellular domain of CD43. <i>Journal of Experimental Medicine</i> , <b>2000</b> , 192, 183-92	16.6	43
37	Carbon-13 NMR studies of native and modified ovine submaxillary mucin. <i>Biochemistry</i> , <b>1984</b> , 23, 1485-93	3.2	41
36	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. <i>Biochemistry</i> , <b>2004</b> , 43, 9888-900	3.2	38
35	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. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 26580-8	5.4	36
34	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. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 7736-51	5.4	34
33	Biochemical and functional characterization of glycosylation-associated mutational landscapes in colon cancer. <i>Scientific Reports</i> , <b>2016</b> , 6, 23642	4.9	33
32	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. <i>Biochemistry</i> , <b>2004</b> , 43, 4137-42 <sup>3-2</sup>	3.2	33
31	Isoform-specific O-glycosylation of osteopontin and bone sialoprotein by polypeptide N-acetylgalactosaminyltransferase-1. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 1208-19	5.4	32
30	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. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 49850-62	5.4	32
29	Rheological studies of the interaction of mucins with alginate and polyacrylate. <i>Carbohydrate Research</i> , <b>1996</b> , 284, 85-99	2.9	31
28	The solution structure of mucous glycoproteins: proton NMR studies of native and modified ovine submaxillary mucin. <i>Archives of Biochemistry and Biophysics</i> , <b>1986</b> , 247, 239-53	4.1	30
27	Molecular basis for fibroblast growth factor 23 O-glycosylation by GalNAc-T3. <i>Nature Chemical Biology</i> , <b>2020</b> , 16, 351-360	11.7	28
26	Structural and Mechanistic Insights into the Catalytic-Domain-Mediated Short-Range Glycosylation Preferences of GalNAc-T4. <i>ACS Central Science</i> , <b>2018</b> , 4, 1274-1290	16.8	28
25	Light-scattering studies of fractionated ovine submaxillary mucins. <i>Carbohydrate Research</i> , <b>1987</b> , 160, 317-27	2.9	27

24	The interdomain flexible linker of the polypeptide GalNAc transferases dictates their long-range glycosylation preferences. <i>Nature Communications</i> , <b>2017</b> , 8, 1959	17.4	26
23	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. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 23019-27	5.4	26
22	Single-molecule pair studies of the interactions of the alpha-GalNAc (Tn-antigen) form of porcine submaxillary mucin with soybean agglutinin. <i>Biopolymers</i> , <b>2009</b> , 91, 719-28	2.2	24
21	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. <i>Protein Science</i> , <b>1996</b> , 5, 89-97	6.3	23
20	Systematic determination of the peptide acceptor preferences for the human UDP-Gal:glycoprotein-alpha-GalNAc beta 3 galactosyltransferase (T-synthase). <i>Glycobiology</i> , <b>2009</b> , 19, 321-8	5.8	22
19	Enhanced self-association of mucins possessing the T and Tn carbohydrate cancer antigens at the single-molecule level. <i>Biomacromolecules</i> , <b>2012</b> , 13, 1400-9	6.9	17
18	Comprehensive plasma and tissue profiling reveals systemic metabolic alterations in cardiac hypertrophy and failure. <i>Cardiovascular Research</i> , <b>2019</b> , 115, 1296-1305	9.9	15
17	Evidence for GALNT12 as a moderate penetrance gene for colorectal cancer. <i>Human Mutation</i> , <b>2018</b> , 39, 1092-1101	4.7	12
16	The structure of the colorectal cancer-associated enzyme GalNAc-T12 reveals how nonconserved residues dictate its function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 20404-20410	11.5	12
15	Ser and Thr acceptor preferences of the GalNAc-Ts vary among isoenzymes to modulate mucin-type O-glycosylation. <i>Glycobiology</i> , <b>2020</b> , 30, 910-922	5.8	12
14	ISOGlyP: de novo prediction of isoform-specific mucin-type O-glycosylation. <i>Glycobiology</i> , <b>2021</b> , 31, 168-172	4.8	12
13	Methylene carbon resonance spectra of epimerized isotactic polystyrene. <i>Polymer Bulletin</i> , <b>1980</b> , 2, 37-42	4.4	11
12	Tn and STn are members of a family of carbohydrate tumor antigens that possess carbohydrate-carbohydrate interactions. <i>Glycobiology</i> , <b>2018</b> , 28, 437-442	5.8	10
11	Revisiting the human polypeptide GalNAc-T1 and T13 paralogs. <i>Glycobiology</i> , <b>2017</b> , 27, 140-153	5.8	8
10	Interactions of mucins with the Tn or Sialyl Tn cancer antigens including MUC1 are due to GalNAc-GalNAc interactions. <i>Glycobiology</i> , <b>2016</b> , 26, 1338-1350	5.8	8
9	Effect of Lipids on the Structure and Rheology of Gels Formed by Canine Submaxillary Mucin. <i>Biorheology</i> , <b>1997</b> , 34, 295-308	1.7	8
8	Myocardial protection during ischemia by prior feeding with the creatine analog: cyclocreatine. <i>Journal of the American College of Cardiology</i> , <b>1989</b> , 14, 246-51	15.1	7
7	Human red and green cone opsins are -glycosylated at an N-terminal Ser/Thr-rich domain conserved in vertebrates. <i>Journal of Biological Chemistry</i> , <b>2019</b> , 294, 8123-8133	5.4	5

6	Single molecule study of heterotypic interactions between mucins possessing the Tn cancer antigen. <i>Glycobiology</i> , <b>2015</b> , 25, 524-34	5.8	5
5	O-glycoprotein biosynthesis: site localization by Edman degradation and site prediction based on random peptide substrates. <i>Methods in Molecular Biology</i> , <b>2012</b> , 842, 81-108	1.4	3
4	Detection of intramolecular interactions of lysyl and N-terminal amino groups of reductively methylated proteins by C nuclear magnetic resonance. <i>Biophysical Journal</i> , <b>1980</b> , 32, 97-9	2.9	2
3	Differential splicing of the lectin domain of an -glycosyltransferase modulates both peptide and glycopeptide preferences. <i>Journal of Biological Chemistry</i> , <b>2020</b> , 295, 12525-12536	5.4	2
2	Predicting mucin-type O-Glycosylation using enhancement value products from derived protein features. <i>Journal of Theoretical and Computational Chemistry</i> , <b>2020</b> , 19,	1.8	2
1	Two Hands Grip Better Than One for Tight Binding and Specificity: How a Phage Endolysin Fits into the Cell Wall of Its Host. <i>Structure</i> , <b>2019</b> , 27, 1350-1352	5.2	1