

Michael Koomey

List of Publications by Year in descending order

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92
papers

6,439
citations

53794

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69250

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docs citations

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times ranked

2908
citing authors

#	ARTICLE	IF	CITATIONS
1	Global Regulatory Pathways Converge To Control Expression of <i>Pseudomonas aeruginosa</i> Type IV Pili. <i>MBio</i> , 2022, , e0369621.	4.1	4
2	Sculpting the Bacterial <i>O</i> -Glycoproteome: Functional Analyses of Orthologous Oligosaccharyltransferases with Diverse Targeting Specificities. <i>MBio</i> , 2022, 13, e0379721.	4.1	2
3	Allelic polymorphisms in a glycosyltransferase gene shape glycan repertoire in the <i>O</i> -linked protein glycosylation system of <i>Neisseria</i> . <i>Glycobiology</i> , 2021, 31, 477-491.	2.5	6
4	O-linked protein glycosylation in bacteria: snapshots and current perspectives. <i>Current Opinion in Structural Biology</i> , 2019, 56, 198-203.	5.7	28
5	Global biochemical and structural analysis of the type IV pilus from the Gram-positive bacterium <i>Streptococcus sanguinis</i> . <i>Journal of Biological Chemistry</i> , 2019, 294, 6796-6808.	3.4	26
6	Type IV Pilin Post-Translational Modifications Modulate Material Properties of Bacterial Colonies. <i>Biophysical Journal</i> , 2019, 116, 938-947.	0.5	13
7	Genetic determinants of genus-level glycan diversity in a bacterial protein glycosylation system. <i>PLoS Genetics</i> , 2019, 15, e1008532.	3.5	16
8	A Broad Spectrum Protein Glycosylation System Influences Type II Protein Secretion and Associated Phenotypes in <i>Vibrio cholerae</i> . <i>Frontiers in Microbiology</i> , 2019, 10, 2780.	3.5	13
9	Disrupted Synthesis of a Di- <i>N</i> -acetylated Sugar Perturbs Mature Glycoform Structure and Microheterogeneity in the <i>O</i> -Linked Protein Glycosylation System of <i>Neisseria elongata</i> subsp. <i>glycolytica</i> . <i>Journal of Bacteriology</i> , 2019, 201, .	2.2	4
10	Structural and genetic analyses of glycan O-acetylation in a bacterial protein glycosylation system: evidence for differential effects on glycan chain length. <i>Glycobiology</i> , 2017, 27, 888-899.	2.5	15
11	Sweet New Roles for Protein Glycosylation in Prokaryotes. <i>Trends in Microbiology</i> , 2017, 25, 662-672.	7.7	65
12	Characterization of a Unique Tetrasaccharide and Distinct Glycoproteome in the <i>O</i> -Linked Protein Glycosylation System of <i>Neisseria elongata</i> subsp. <i>glycolytica</i> . <i>Journal of Bacteriology</i> , 2016, 198, 256-267.	2.2	28
13	Cytochrome <i>c</i> -based domain modularity governs genus-level diversification of electron transfer to dissimilatory nitrite reduction. <i>Environmental Microbiology</i> , 2015, 17, 2114-2132.	3.8	7
14	Type IV Pilus Assembly Proficiency and Dynamics Influence Pilin Subunit Phospho-Form Macro- and Microheterogeneity in <i>Neisseria gonorrhoeae</i> . <i>PLoS ONE</i> , 2014, 9, e96419.	2.5	3
15	Concerted Spatio-Temporal Dynamics of Imported DNA and ComE DNA Uptake Protein during Gonococcal Transformation. <i>PLoS Pathogens</i> , 2014, 10, e1004043.	4.7	48
16	Extended glycan diversity in a bacterial protein glycosylation system linked to allelic polymorphisms and minimal genetic alterations in a glycosyltransferase gene. <i>Molecular Microbiology</i> , 2014, 94, 688-699.	2.5	16
17	Allelic Variation in a Simple Sequence Repeat Element of <i>Neisseria</i> <i>pglB2</i> and Its Consequences for Protein Expression and Protein Glycosylation. <i>Journal of Bacteriology</i> , 2013, 195, 3476-3485.	2.2	7
18	Characterization of exogenous bacterial oligosaccharyltransferases in <i>Escherichia coli</i> reveals the potential for O-linked protein glycosylation in <i>Vibrio cholerae</i> and <i>Burkholderia thailandensis</i> . <i>Glycobiology</i> , 2012, 22, 962-974.	2.5	38

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19	Novel Protein Substrates of the Phospho-Form Modification System in <i>Neisseria gonorrhoeae</i> and Their Connection to O-Linked Protein Glycosylation. <i>Infection and Immunity</i> , 2012, 80, 22-30.	2.2	22
20	Hypomorphic Glycosyltransferase Alleles and Recoding at Contingency Loci Influence Glycan Microheterogeneity in the Protein Glycosylation System of <i>Neisseria</i> Species. <i>Journal of Bacteriology</i> , 2012, 194, 5034-5043.	2.2	11
21	Insights into type IV pilus biogenesis and dynamics from genetic analysis of a terminally tagged pilin: a role for O-linked glycosylation. <i>Molecular Microbiology</i> , 2012, 85, 1166-1178.	2.5	19
22	An Extended Spectrum of Target Proteins and Modification Sites in the General O-Linked Protein Glycosylation System in <i>Neisseria gonorrhoeae</i> . <i>Journal of Proteome Research</i> , 2012, 11, 5781-5793.	3.7	49
23	Biochemical Characterization of the O-Linked Glycosylation Pathway in <i>Neisseria gonorrhoeae</i> Responsible for Biosynthesis of Protein Glycans Containing N,N-Diacetylglucosamine. <i>Biochemistry</i> , 2011, 50, 4936-4948.	2.5	79
24	Kiss and Run – Phosphoglycerol Modifications of <i>N. Meningitidis</i> Pili Mediate Detachment. <i>Frontiers in Microbiology</i> , 2011, 2, 82.	3.5	0
25	O-Linked Glycosylation of the PilA Pilin Protein of <i>Francisella tularensis</i> : Identification of the Endogenous Protein-Targeting Oligosaccharyltransferase and Characterization of the Native Oligosaccharide. <i>Journal of Bacteriology</i> , 2011, 193, 5487-5497.	2.2	44
26	Genetic and molecular analyses reveal an evolutionary trajectory for glycan synthesis in a bacterial protein glycosylation system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 9643-9648.	7.1	43
27	Infection of human mucosal tissue by <i>Pseudomonas aeruginosa</i> requires sequential and mutually dependent virulence factors and a novel pilus-associated adhesin. <i>Cellular Microbiology</i> , 2010, 12, 1158-1173.	2.1	98
28	Multiple Pilus Motors Cooperate for Persistent Bacterial Movement in Two Dimensions. <i>Physical Review Letters</i> , 2010, 104, 178104.	7.8	52
29	Genetic, Structural, and Antigenic Analyses of Glycan Diversity in the O-Linked Protein Glycosylation Systems of Human <i>Neisseria</i> Species. <i>Journal of Bacteriology</i> , 2010, 192, 2816-2829.	2.2	52
30	Structural Alterations in a Component of Cytochrome c Oxidase and Molecular Evolution of Pathogenic <i>Neisseria</i> in Humans. <i>PLoS Pathogens</i> , 2010, 6, e1001055.	4.7	25
31	Broad spectrum O-linked protein glycosylation in the human pathogen <i>Neisseria gonorrhoeae</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 4447-4452.	7.1	142
32	Functional analyses of pilin-like proteins from <i>Francisella tularensis</i> : complementation of type IV pilus phenotypes in <i>Neisseria gonorrhoeae</i> . <i>Microbiology (United Kingdom)</i> , 2009, 155, 2546-2559.	1.8	22
33	Dynamics of Type IV Pili Is Controlled by Switching Between Multiple States. <i>Biophysical Journal</i> , 2009, 96, 1169-1177.	0.5	60
34	Genetic and Functional Analyses of PptA, a Phospho-Form Transferase Targeting Type IV Pili in <i>Neisseria gonorrhoeae</i> . <i>Journal of Bacteriology</i> , 2008, 190, 387-400.	2.2	43
35	Roles of c-type cytochromes in respiration in <i>Neisseria meningitidis</i> . <i>Microbiology (United Kingdom)</i> , 2008, 154, 2857-2864.	1.8	30
36	Microbial genome dynamics in CNS pathogenesis. <i>Neuroscience</i> , 2007, 145, 1375-1387.	2.3	12

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37	<i>Pseudomonas aeruginosa</i> Type IV Pilus Expression in <i>Neisseria gonorrhoeae</i> : Effects of Pilin Subunit Composition on Function and Organelle Dynamics. <i>Journal of Bacteriology</i> , 2007, 189, 6676-6685.	2.2	28
38	Substitutions in the N-terminal alpha helical spine of <i>Neisseria gonorrhoeae</i> pilin affect Type IV pilus assembly, dynamics and associated functions. <i>Molecular Microbiology</i> , 2007, 63, 69-85.	2.5	43
39	<i>Neisseria gonorrhoeae</i> O-linked pilin glycosylation: functional analyses define both the biosynthetic pathway and glycan structure. <i>Molecular Microbiology</i> , 2007, 65, 607-624.	2.5	112
40	<i>Neisseria gonorrhoeae</i> Type IV Pili Undergo Multisite, Hierarchical Modifications with Phosphoethanolamine and Phosphocholine Requiring an Enzyme Structurally Related to Lipopolysaccharide Phosphoethanolamine Transferases. <i>Journal of Biological Chemistry</i> , 2006, 281, 27712-27723.	3.4	61
41	Release of host-derived membrane vesicles following pilus-mediated adhesion of <i>Neisseria gonorrhoeae</i> . <i>Cellular Microbiology</i> , 2005, 7, 1672-1683.	2.1	16
42	A conserved set of pilin-like molecules controls type IV pilus dynamics and organelle-associated functions in <i>Neisseria gonorrhoeae</i> . <i>Molecular Microbiology</i> , 2005, 56, 903-917.	2.5	99
43	A force-dependent switch reverses type IV pilus retraction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 10961-10966.	7.1	96
44	Unique modifications with phosphocholine and phosphoethanolamine define alternate antigenic forms of <i>Neisseria gonorrhoeae</i> type IV pili. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 10798-10803.	7.1	119
45	Type IV pilus retraction in pathogenic <i>Neisseria</i> is regulated by the PilC proteins. <i>EMBO Journal</i> , 2004, 23, 2009-2017.	7.8	108
46	Transformation and DNA repair: linkage by DNA recombination. <i>Trends in Microbiology</i> , 2004, 12, 1-4.	7.7	10
47	Down-regulation of CD46 by Piliated <i>Neisseria gonorrhoeae</i> . <i>Journal of Experimental Medicine</i> , 2003, 198, 1313-1322.	8.5	47
48	Modification of Type IV Pilus-Associated Epithelial Cell Adherence and Multicellular Behavior by the PilU Protein of <i>Neisseria gonorrhoeae</i> . <i>Infection and Immunity</i> , 2002, 70, 3891-3903.	2.2	47
49	Transcriptional, chemosensory and cell-contact-dependent regulation of type IV pilus expression. <i>Current Opinion in Microbiology</i> , 2002, 5, 173-178.	5.1	22
50	Competence for natural transformation in <i>Neisseria gonorrhoeae</i> : components of DNA binding and uptake linked to type IV pilus expression. <i>Molecular Microbiology</i> , 2002, 46, 749-760.	2.5	141
51	An inhibitor of DNA binding and uptake events dictates the proficiency of genetic transformation in <i>Neisseria gonorrhoeae</i> : mechanism of action and links to Type IV pilus expression. <i>Molecular Microbiology</i> , 2002, 46, 1441-1450.	2.5	58
52	Implications of molecular contacts and signaling initiated by <i>Neisseria gonorrhoeae</i> . <i>Current Opinion in Microbiology</i> , 2001, 4, 53-57.	5.1	19
53	Structural alterations in a type IV pilus subunit protein result in concurrent defects in multicellular behaviour and adherence to host tissue. <i>Molecular Microbiology</i> , 2001, 42, 293-307.	2.5	33
54	<i>Neisseria gonorrhoeae</i> PilV, a type IV pilus-associated protein essential to human epithelial cell adherence. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 15276-15281.	7.1	122

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55	Components and dynamics of fiber formation define a ubiquitous biogenesis pathway for bacterial pili. EMBO Journal, 2000, 19, 6408-6418.	7.8	224
56	Charged tmRNA but not tmRNA-mediated proteolysis is essential for <i>Neisseria gonorrhoeae</i> viability. EMBO Journal, 2000, 19, 1098-1107.	7.8	117
57	Crystallographic structure reveals phosphorylated pilin from <i>Neisseria</i> : phosphoserine sites modify type IV pilus surface chemistry and fibre morphology. Molecular Microbiology, 1999, 31, 743-752.	2.5	93
58	The <i>compP</i> locus of <i>Neisseria gonorrhoeae</i> encodes a type IV prepilin that is dispensable for pilus biogenesis but essential for natural transformation. Molecular Microbiology, 1999, 31, 1345-1357.	2.5	108
59	Competence for Natural transformation in <i>Neisseria gonorrhoeae</i> : A Model System for Studies of Horizontal Gene Transfer. <i>Apms</i> , 1998, 106, 56-61.	2.0	51
60	Structure and function of repetitive sequence elements associated with a highly polymorphic domain of the <i>Neisseria meningitidis</i> PilQ protein. Molecular Microbiology, 1998, 29, 111-124.	2.5	62
61	PilT mutations lead to simultaneous defects in competence for natural transformation and twitching motility in pilated <i>Neisseria gonorrhoeae</i> . Molecular Microbiology, 1998, 29, 321-330.	2.5	306
62	Suppression of an absolute defect in Type IV pilus biogenesis by loss-of-function mutations in <i>pilT</i> , a twitching motility gene in <i>Neisseria gonorrhoeae</i> . Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 14973-14978.	7.1	139
63	General secretion pathway (<i>eps</i>) genes required for toxin secretion and outer membrane biogenesis in <i>Vibrio cholerae</i> . Journal of Bacteriology, 1997, 179, 6994-7003.	2.2	188
64	The pilus colonization factor of pathogenic neisserial species: organelle biogenesis and structure/function relationships – a review. <i>Gene</i> , 1997, 192, 155-163.	2.2	107
65	Bacterial pathogenesis: A variation on variation in Lyme disease. <i>Current Biology</i> , 1997, 7, R538-R540.	3.9	36
66	PilP, a pilus biogenesis lipoprotein in <i>Neisseria gonorrhoeae</i> , affects expression of PilQ as a high-molecular-mass multimer. Molecular Microbiology, 1997, 23, 657-668.	2.5	147
67	The product of the <i>pilQ</i> gene is essential for the biogenesis of type IV pili in <i>Neisseria gonorrhoeae</i> . Molecular Microbiology, 1995, 18, 975-986.	2.5	144
68	Single amino acid substitutions in the N-terminus of <i>Vibrio cholerae</i> TcpA affect colonization, autoagglutination, and serum resistance. Molecular Microbiology, 1995, 17, 1133-1142.	2.5	115
69	Identification and characterization of <i>pilG</i> , a highly conserved pilus-assembly gene in pathogenic <i>Neisseria</i> . Molecular Microbiology, 1995, 16, 451-464.	2.5	148
70	Characterization of the <i>pilP/pilD</i> pilus-assembly locus of <i>Neisseria gonorrhoeae</i> . Molecular Microbiology, 1995, 16, 575-586.	2.5	159
71	Prepilin-like molecules in type 4 pilus biogenesis: minor subunits, chaperones or mediators of organelle translocation?. <i>Trends in Microbiology</i> , 1995, 3, 409-411.	7.7	20
72	Molecular cloning and characterization of a proline iminopeptidase gene from <i>Neisseria gonorrhoeae</i> . Molecular Microbiology, 1993, 9, 1203-1211.	2.5	44

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73	Conservation of genes encoding components of a type IV pilus assembly/two-step protein export pathway in <i>Neisseria gonorrhoeae</i> . <i>Molecular Microbiology</i> , 1993, 8, 357-368.	2.5	95
74	Gene conversion in <i>Neisseria gonorrhoeae</i> : evidence for its role in pilus antigenic variation.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992, 89, 5366-5370.	7.1	110
75	Genetic diversity among the T-protein genes of group A streptococci. <i>Molecular Microbiology</i> , 1991, 5, 2947-2952.	2.5	8
76	Pilin expression and processing in pilus mutants of <i>Neisseria gonorrhoeae</i> : critical role of Gly-1 in assembly. <i>Molecular Microbiology</i> , 1991, 5, 279-287.	2.5	54
77	The construction and characterization of <i>Neisseria gonorrhoeae</i> lacking protein III in its outer membrane.. <i>Journal of Experimental Medicine</i> , 1989, 169, 2199-2209.	8.5	39
78	Phase variation of gonococcal protein II: Regulation of gene expression by slipped-strand mispairing of a repetitive DNA sequence. <i>Cell</i> , 1989, 56, 539-547.	28.9	212
79	Gene conversion variations generate structurally distinct pilin polypeptides in <i>Neisseria gonorrhoeae</i> .. <i>Journal of Experimental Medicine</i> , 1987, 165, 1016-1025.	8.5	55
80	Gonococcal pilin variants in experimental gonorrhea.. <i>Journal of Experimental Medicine</i> , 1987, 165, 1344-1357.	8.5	209
81	Porin protein of <i>Neisseria gonorrhoeae</i> : cloning and gene structure.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987, 84, 8135-8139.	7.1	143
82	Cloning of the <i>recA</i> gene of <i>Neisseria gonorrhoeae</i> and construction of gonococcal <i>recA</i> mutants. <i>Journal of Bacteriology</i> , 1987, 169, 790-795.	2.2	152
83	Gene conversion accounts for pilin structural changes and for reversible piliation ?phase? changes in gonococci. <i>Antonie Van Leeuwenhoek</i> , 1987, 53, 441-446.	1.7	13
84	Effects of <i>recA</i> Mutations on Pilus Antigenic Variation and Phase Transitions in <i>Neisseria gonorrhoeae</i> . <i>Genetics</i> , 1987, 117, 391-398.	2.9	204
85	Gene conversion involving the pilin structural gene correlates with pilus+ and pilus ⁻ changes in <i>Neisseria gonorrhoeae</i> . <i>Cell</i> , 1986, 47, 267-276.	28.9	193
86	Piliation control mechanisms in <i>Neisseria gonorrhoeae</i> .. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986, 83, 3890-3894.	7.1	145
87	An Unusual <i>Neisseria</i> Isolated from Conjunctival Cultures in Rural Egypt. <i>Journal of Infectious Diseases</i> , 1986, 154, 212-224.	4.0	18
88	Cloning of the structural genes of three H8 antigens and of protein III of <i>Neisseria gonorrhoeae</i> .. <i>Journal of Experimental Medicine</i> , 1986, 164, 868-881.	8.5	54
89	Attachment to and Invasion of Human Fallopian Tube Mucosa by an IgA1 Protease-Deficient Mutant of <i>Neisseria gonorrhoeae</i> and Its Wild-Type Parent. <i>Journal of Infectious Diseases</i> , 1984, 150, 737-744.	4.0	58
90	Genetic and biochemical analysis of gonococcal IgA1 protease: cloning in <i>Escherichia coli</i> and construction of mutants of gonococci that fail to produce the activity.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1982, 79, 7881-7885.	7.1	129

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91	Adenovirus type 12 VA RNA I. Synthesis in productive infection and gene mapping. <i>Virology</i> , 1979, 95, 295-302.	2.4	11
92	Mechanisms of Pilus Antigenic Variation in <i>Neisseria gonorrhoeae</i> . , 0, , 113-126.		6