Joseph S Lam

List of Publications by Year
in descending order

73 papers	4,466 citations	94433 37 h-index	110387 64 g-index
75 all docs	75 docs citations	75 times ranked	4725 citing authors

#	Article	IF	Citations
1	Microcolony formation: a novel biofilm model of Pseudomonas aeruginosa for the cystic fibrosis lung. Journal of Medical Microbiology, 2005, 54, 667-676.	1.8	314
2	Review: Lipopolysaccharide biosynthesis in<i>Pseudomonas aeruginosa</i>. Innate Immunity, 2009, 15, 261-312.	2.4	278
3	Cloning and functional characterization of the Pseudomonas aeruginosa rhlC gene that encodes rhamnosyltransferase 2, an enzyme responsible for di-rhamnolipid biosynthesis. Molecular Microbiology, 2001, 40, 708-718.	2.5	237
4	Synthesis of bacterial polysaccharides via the Wzx/Wzy-dependent pathway. Canadian Journal of Microbiology, 2014, 60, 697-716.	1.7	220
5	Genetic and Functional Diversity of Pseudomonas aeruginosa Lipopolysaccharide. Frontiers in Microbiology, 2011, 2, 118.	3.5	217
6	Clinical utilization of genomics data produced by the international Pseudomonas aeruginosa consortium. Frontiers in Microbiology, 2015, 6, 1036.	3.5	144
7	Absolute Quantitation of Bacterial Biofilm Adhesion and Viscoelasticity by Microbead Force Spectroscopy. Biophysical Journal, 2009, 96, 2935-2948.	0.5	139
8	Characterization of the Polymyxin B Resistome of Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2013, 57, 110-119.	3.2	136
9	Functional Characterization of WaaL, a Ligase Associated with Linking O-Antigen Polysaccharide to the Core of Pseudomonas aeruginosa Lipopolysaccharide. Journal of Bacteriology, 2005, 187, 3002-3012.	2.2	127
10	Three rhamnosyltransferases responsible for assembly of the A-band D-rhamnan polysaccharide in Pseudomonas aeruginosa: a fourth transferase, WbpL, is required for the initiation of both A-band and B-band lipopolysaccharide synthesis. Molecular Microbiology, 1998, 28, 1103-1119.	2.5	123
11	Influence of O Polysaccharides on Biofilm Development and Outer Membrane Vesicle Biogenesis in Pseudomonas aeruginosa PAO1. Journal of Bacteriology, 2014, 196, 1306-1317.	2.2	122
12	Involvement of the rml locus in core oligosaccharide and O polysaccharide assembly in Pseudomonas aeruginosa. Microbiology (United Kingdom), 2000, 146, 2803-2814.	1.8	107
13	The Role of Pseudomonas aeruginosa Lipopolysaccharide in Bacterial Pathogenesis and Physiology. Pathogens, 2020, 9, 6.	2.8	105
14	Functional analysis of genes responsible for the synthesis of the B-band O antigen of Pseudomonas aeruginosa serotype O6 lipopolysaccharide The GenBank accession number for the sequence reported in this paper is AF035937.. Microbiology (United Kingdom), 1999, 145, 3505-3521.	1.8	102
15	Differential Lipopolysaccharide Core Capping Leads to Quantitative and Correlated Modifications of Mechanical and Structural Properties in <i>Pseudomonas aeruginosa</i> Biofilms. Journal of Bacteriology, 2009, 191, 6618-6631.	2.2	99
16	Three-component-mediated serotype conversion in Pseudomonas aeruginosa by bacteriophage D3. Molecular Microbiology, 2004, 39, 1237-1247.	2.5	86
17	Application of Whole-Genome Sequencing Data for O-Specific Antigen Analysis and <i>In Silico</i> Serotyping of Pseudomonas aeruginosa Isolates. Journal of Clinical Microbiology, 2016, 54, 1782-1788.	3.9	85
18	Lipopolysaccharide core phosphates are required for viability and intrinsic drug resistance in Pseudomonas aeruginosa. Molecular Microbiology, 2000, 35, 718-727.	2.5	81

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19	Structural characterization of the outer core and the O-chain linkage region of lipopolysaccharide from Pseudomonas aeruginosa serotype O5. FEBS Journal, 2000, 267, 1640-1650.	0.2	79
20	Co-evolution with <i>Staphylococcus aureus</i> leads to lipopolysaccharide alterations in <i>Pseudomonas aeruginosa</i>. ISME Journal, 2017, 11, 2233-2243.	9.8	78
21	Pseudomonas aeruginosaantigens as potential vaccines. FEMS Microbiology Reviews, 1997, 21, 243-277.	8.6	77
22	Structural elucidation of the lipopolysaccharide core regions of the wild-type strain PAO1 and O-chain-deficient mutant strains AK1401 and AK1012 from Pseudomonas aeruginosa serotype O5. FEBS Journal, 1998, 255, 673-684.	0.2	75
23	Pseudomonas aeruginosa O-antigen chain length is determined before ligation to lipid A core. Environmental Microbiology, 2002, 4, 883-897.	3.8	75
24	Effect of wzx (rfbX) Mutations on A-Band and B-Band Lipopolysaccharide Biosynthesis in Pseudomonas aeruginosa O5. Journal of Bacteriology, 1999, 181, 973-980.	2.2	74
25	Molecular cloning and characterization of the rfc gene of Pseudomonas aeruginosa (serotype O5). Molecular Microbiology, 1995, 16, 565-574.	2.5	72
26	Truncation in the core oligosaccharide of lipopolysaccharide affects flagella-mediated motility in Pseudomonas aeruginosa PAO1 via modulation of cell surface attachment. Microbiology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.8	62
27	Cyclic-di-GMP regulates lipopolysaccharide modification and contributes to Pseudomonas aeruginosa immune evasion. Nature Microbiology, 2017, 2, 17027.	13.3	61
28	Rapid Evolution of Culture-Impaired Bacteria during Adaptation to Biofilm Growth. Cell Reports, 2014, 6, 293-300.	6.4	57
29	Synthesis of the Aâ€band polysaccharide sugarDâ€rhamnose requires Rmd and WbpW: identification of multiple AlgA homologues, WbpW and ORF488, inPseudomonas aeruginosa. Molecular Microbiology, 1998, 29, 1419-1434.	2.5	55
30	Functional Characterization of MigA and WapR: Putative Rhamnosyltransferases Involved in Outer Core Oligosaccharide Biosynthesis of<i>Pseudomonas aeruginosa</i>. Journal of Bacteriology, 2008, 190, 1857-1865.	2.2	54
31	WaaL of <i>Pseudomonas aeruginosa</i> utilizes ATP in <i>in vitro</i> ligation of O antigen onto lipid Aâ€core. Molecular Microbiology, 2007, 65, 1345-1359.	2.5	52
32	The Widespread Multidrug-Resistant Serotype O12 Pseudomonas aeruginosa Clone Emerged through Concomitant Horizontal Transfer of Serotype Antigen and Antibiotic Resistance Gene Clusters. MBio, 2015, 6, e01396-15.	4.1	47
33	<i>SLC6A14</i> Is a Genetic Modifier of Cystic Fibrosis That Regulates <i>Pseudomonas aeruginosa</i> Attachment to Human Bronchial Epithelial Cells. MBio, 2017, 8, .	4.1	45
34	Flagellin Glycosylation in Pseudomonas aeruginosa PAK Requires the O-antigen Biosynthesis Enzyme WbpO. Journal of Biological Chemistry, 2008, 283, 3507-3518.	3.4	44
35	Functional Conservation of the Polysaccharide Biosynthetic Protein WbpM and Its Homologues in Pseudomonas aeruginosa and Other Medically Significant Bacteria. Infection and Immunity, 2000, 68, 931-936.	2.2	43
36	Generation of a highly attenuated strain of <i>Pseudomonas aeruginosa</i> for commercial production of alginate. Microbial Biotechnology, 2020, 13, 162-175.	4.2	43

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37	The structural basis for catalytic function of GMD and RMD, two closely related enzymes from the GDPâ€‹<scp>d</scp>â€‹rhamnose biosynthesis pathway. FEBS Journal, 2009, 276, 2686-2700.	4.7	41
38	A Genotypic Analysis of Five P. aeruginosa Strains after Biofilm Infection by Phages Targeting Different Cell Surface Receptors. Frontiers in Microbiology, 2017, 8, 1229.	3.5	41
39	Conserved-residue mutations in Wzy affect O-antigen polymerization and Wzz-mediated chain-length regulation in Pseudomonas aeruginosa PAO1. Scientific Reports, 2013, 3, 3441.	3.3	40
40	Structural analysis of the carbohydrate components of the outer membrane of the lipopolysaccharide-lacking cellulolytic ruminal bacteriumFibrobacter succinogenesS85. FEBS Journal, 2001, 268, 3566-3576.	0.2	31
41	Biosynthesis of the Common Polysaccharide Antigen of Pseudomonas aeruginosa PAO1: Characterization and Role of GDP- <scp>d</scp> -Rhamnose:GlcNAc/GalNAc-Diphosphate-Lipid Î±1,3- <scp>d</scp> -Rhamnosyltransferase WbpZ. Journal of Bacteriology, 2015, 197, 2012-2019.	2.2	29
42	Molecular genetic analysis of the region containing the essential Pseudomonas aeruginosa asd gene encoding aspartate-Î²-semialdehyde dehydrogenase. Microbiology (United Kingdom), 1997, 143, 899-907.	1.8	29
43	Biosynthesis of a Rare Di-N-Acetylated Sugar in the Lipopolysaccharides of both Pseudomonas aeruginosa and Bordetella pertussis Occurs via an Identical Scheme despite Different Gene Clusters. Journal of Bacteriology, 2008, 190, 6060-6069.	2.2	28
44	migA, a quorum-responsive gene of Pseudomonas aeruginosa, is highly expressed in the cystic fibrosis lung environment and modifies low-molecular-mass lipopolysaccharide. Microbiology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 457	1.8	28
45	Biochemical Characterization of MsbA from Pseudomonas aeruginosa. Journal of Biological Chemistry, 2007, 282, 26939-26947.	3.4	26
46	LPS Quantitation Procedures. Methods in Molecular Biology, 2014, 1149, 375-402.	0.9	26
47	Single-Nucleotide Polymorphisms Found in the <i>migA</i> and <i>wbpX</i> Glycosyltransferase Genes Account for the Intrinsic Lipopolysaccharide Defects Exhibited by Pseudomonas aeruginosa PA14. Journal of Bacteriology, 2015, 197, 2780-2791.	2.2	24
48	Physical mapping of 32 genetic markers on the Pseudomonas aeruginosa PAO1 chromosome. Microbiology (United Kingdom), 1996, 142, 79-86.	1.8	22
49	lfnA from Pseudomonas aeruginosa O12 and wbuX from Escherichia coli O145 Encode Membrane-Associated Proteins and Are Required for Expression of 2,6-Dideoxy-2-Acetamidino- l -Galactose in Lipopolysaccharide O Antigen. Journal of Bacteriology, 2008, 190, 1671-1679.	2.2	22
50	The D3 Bacteriophage Â-Polymerase Inhibitor (Iap) Peptide Disrupts O-Antigen Biosynthesis through Mimicry of the Chain Length Regulator Wzz in Pseudomonas aeruginosa. Journal of Bacteriology, 2013, 195, 4735-4741.	2.2	21
51	A Putative ABC Transporter Permease Is Necessary for Resistance to Acidified Nitrite and EDTA in Pseudomonas aeruginosa under Aerobic and Anaerobic Planktonic and Biofilm Conditions. Frontiers in Microbiology, 2016, 7, 291.	3.5	21
52	Coexistence of Two Distinct Versions of O-Antigen Polymerase, Wzy-Alpha and Wzy-Beta, in Pseudomonas aeruginosa Serogroup O2 and Their Contributions to Cell Surface Diversity. Journal of Bacteriology, 2007, 189, 4141-4152.	2.2	20
53	A processive endoglucanase with multi-substrate specificity is characterized from porcine gut microbiota. Scientific Reports, 2019, 9, 13630.	3.3	20
54	Five New Genes Are Important for Common Polysaccharide Antigen Biosynthesis in Pseudomonas aeruginosa. MBio, 2013, 4, e00631-12.	4.1	19

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55	Polymyxin Susceptibility in Pseudomonas aeruginosa Linked to the MexXY-OprM Multidrug Efflux System. Antimicrobial Agents and Chemotherapy, 2015, 59, 7276-7289.	3.2	18
56	A deletion in the <scp><i>wapB</i></scp> promoter in many serotypes of <i>Pseudomonas aeruginosa</i> accounts for the lack of a terminal glucose residue in the core oligosaccharide and resistance to killing by <scp>R</scp>3â€pyocin. Molecular Microbiology, 2013, 89, 464-478.	2.5	17
57	Visualizing and quantifying Pseudomonas aeruginosa infection in the hindbrain ventricle of zebrafish using confocal laser scanning microscopy. Journal of Microbiological Methods, 2015, 117, 85-94.	1.6	17
58	Pseudomonas aeruginosaB-band lipopolysaccharide geneswbpAandwbpIand theirEscherichia colihomologueswecCandwecBare not functionally interchangeable. FEMS Microbiology Letters, 2000, 189, 135-141.	1.8	16
59	Characterization of non-typable strains of Pseudomonas aeruginosa from cystic fibrosis patients by means of monoclonal antibodies and SDS-polyacrylamide gel electrophoresis. Serodiagnosis and Immunotherapy in Infectious Disease, 1988, 2, 365-374.	0.2	15
60	Rhamnosyltransferase Genes <i>migA</i> and <i>wapR</i> Are Regulated in a Differential Manner To Modulate the Quantities of Core Oligosaccharide Glycoforms Produced by Pseudomonas aeruginosa. Journal of Bacteriology, 2012, 194, 4295-4300.	2.2	12
61	Unique Regions of the Polysaccharide Copolymerase Wzz ₂ from Pseudomonas aeruginosa Are Essential for O-Specific Antigen Chain Length Control. Journal of Bacteriology, 2019, 201, .	2.2	12
62	Evidence that WapB Is a 1,2-Glucosyltransferase of Pseudomonas aeruginosa Involved in Lipopolysaccharide Outer Core Biosynthesis. Journal of Bacteriology, 2011, 193, 2708-2716.	2.2	11
63	Identification of the Pseudomonas aeruginosa O17 and O15 O-Specific Antigen Biosynthesis Loci Reveals an ABC Transporter-Dependent Synthesis Pathway and Mechanisms of Genetic Diversity. Journal of Bacteriology, 2020, 202, .	2.2	10
64	The effect of loss of O-antigen ligase on phagocytic susceptibility of motile and non-motile Pseudomonas aeruginosa. Molecular Immunology, 2017, 92, 106-115.	2.2	8
65	A Bacteriophage-Acquired O-Antigen Polymerase (Wzyî²) from P. aeruginosa Serotype O16 Performs a Varied Mechanism Compared to Its Cognate Wzyî±. Frontiers in Microbiology, 2016, 7, 393.	3.5	7
66	Conjugative type IVb pilus recognizes lipopolysaccharide of recipient cells to initiate PAPI-1 pathogenicity island transfer in Pseudomonas aeruginosa. BMC Microbiology, 2017, 17, 31.	3.3	6
67	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 Neisseria elongata subsp. <i>glycolytica</i>. Journal of Bacteriology, 2019, 201, .	2.2	4
68	Three-component-mediated serotype conversion in Pseudomonas aeruginosa by bacteriophage D3. Molecular Microbiology, 2001, 39, 1237-1247.	2.5	4
69	Membrane Translocation and Assembly of Sugar Polymer Precursors. Current Topics in Microbiology and Immunology, 2015, 404, 95-128.	1.1	3
70	Synthesis of the A-band polysaccharide sugar D-rhamnose requires Rmd and WbpW: identification of multiple AlgA homologues, WbpW and ORF488, in Pseudomonas aeruginosa. Molecular Microbiology, 1999, 31, 397-398.	2.5	0
71	Designing Glycosyltransferase Expression Constructs for Improved Purification, Protein Yield, and Crystallization. Methods in Molecular Biology, 2019, 1954, 137-150.	0.9	0
72	Wzx flippase-mediated membrane translocation of sugar polymer precursors in bacteria.. Environmental Microbiology Reports, 2012, , n/a-n/a.	2.4	0

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73	A Novel Monomodular and Multifunctional Processive Î²â€1,4â€Endoglucanase Has Been Identified and Characterized from Porcine Gut Microbiome. FASEB Journal, 2018, 32, 544.9.	0.5	0