

Joseph S Lam

List of Publications by Year in descending order

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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	Generation of a highly attenuated strain of <i>Pseudomonas aeruginosa</i> for commercial production of alginate. <i>Microbial Biotechnology</i> , 2020, 13, 162-175.	4.2	43
2	The Role of <i>Pseudomonas aeruginosa</i> Lipopolysaccharide in Bacterial Pathogenesis and Physiology. <i>Pathogens</i> , 2020, 9, 6.	2.8	105
3	Identification of the <i>Pseudomonas aeruginosa</i> O17 and O15 O-Specific Antigen Biosynthesis Loci Reveals an ABC Transporter-Dependent Synthesis Pathway and Mechanisms of Genetic Diversity. <i>Journal of Bacteriology</i> , 2020, 202, .	2.2	10
4	A processive endoglucanase with multi-substrate specificity is characterized from porcine gut microbiota. <i>Scientific Reports</i> , 2019, 9, 13630.	3.3	20
5	Unique Regions of the Polysaccharide Copolymerase Wzz ₂ from <i>Pseudomonas aeruginosa</i> Are Essential for O-Specific Antigen Chain Length Control. <i>Journal of Bacteriology</i> , 2019, 201, .	2.2	12
6	Designing Glycosyltransferase Expression Constructs for Improved Purification, Protein Yield, and Crystallization. <i>Methods in Molecular Biology</i> , 2019, 1954, 137-150.	0.9	0
7	Disrupted Synthesis of a Di-N-acetylated Sugar Perturbs Mature Glycoform Structure and Microheterogeneity in the O-Linked Protein Glycosylation System of <i>Neisseria elongata</i> subsp. <i>glycolytica</i> . <i>Journal of Bacteriology</i> , 2019, 201, .	2.2	4
8	A Novel Monomodular and Multifunctional Processive Endoglucanase Has Been Identified and Characterized from Porcine Gut Microbiome. <i>FASEB Journal</i> , 2018, 32, 544.9.	0.5	0
9	Conjugative type IVb pilus recognizes lipopolysaccharide of recipient cells to initiate PAPI-1 pathogenicity island transfer in <i>Pseudomonas aeruginosa</i> . <i>BMC Microbiology</i> , 2017, 17, 31.	3.3	6
10	Cyclic-di-GMP regulates lipopolysaccharide modification and contributes to <i>Pseudomonas aeruginosa</i> immune evasion. <i>Nature Microbiology</i> , 2017, 2, 17027.	13.3	61
11	Co-evolution with <i>Staphylococcus aureus</i> leads to lipopolysaccharide alterations in <i>Pseudomonas aeruginosa</i> . <i>ISME Journal</i> , 2017, 11, 2233-2243.	9.8	78
12	The effect of loss of O-antigen ligase on phagocytic susceptibility of motile and non-motile <i>Pseudomonas aeruginosa</i> . <i>Molecular Immunology</i> , 2017, 92, 106-115.	2.2	8
13	A Genotypic Analysis of Five <i>P. aeruginosa</i> Strains after Biofilm Infection by Phages Targeting Different Cell Surface Receptors. <i>Frontiers in Microbiology</i> , 2017, 8, 1229.	3.5	41
14	<i>SLC6A14</i> Is a Genetic Modifier of Cystic Fibrosis That Regulates <i>Pseudomonas aeruginosa</i> Attachment to Human Bronchial Epithelial Cells. <i>MBio</i> , 2017, 8, .	4.1	45
15	A Putative ABC Transporter Permease Is Necessary for Resistance to Acidified Nitrite and EDTA in <i>Pseudomonas aeruginosa</i> under Aerobic and Anaerobic Planktonic and Biofilm Conditions. <i>Frontiers in Microbiology</i> , 2016, 7, 291.	3.5	21
16	A Bacteriophage-Acquired O-Antigen Polymerase (Wzy ¹²) from <i>P. aeruginosa</i> Serotype O16 Performs a Varied Mechanism Compared to Its Cognate Wzy ^{1±} . <i>Frontiers in Microbiology</i> , 2016, 7, 393.	3.5	7
17	Application of Whole-Genome Sequencing Data for O-Specific Antigen Analysis and <i>In Silico</i> Serotyping of <i>Pseudomonas aeruginosa</i> Isolates. <i>Journal of Clinical Microbiology</i> , 2016, 54, 1782-1788.	3.9	85
18	Clinical utilization of genomics data produced by the international <i>Pseudomonas aeruginosa</i> consortium. <i>Frontiers in Microbiology</i> , 2015, 6, 1036.	3.5	144

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19	Biosynthesis of the Common Polysaccharide Antigen of <i>Pseudomonas aeruginosa</i> PAO1: Characterization and Role of GDP- β -Rhamnose:GlcNAc/GalNAc-Diphosphate-Lipid β 1,3-Glycosyltransferase WbpZ. <i>Journal of Bacteriology</i> , 2015, 197, 1202-1219.	2.2	29
20	Membrane Translocation and Assembly of Sugar Polymer Precursors. <i>Current Topics in Microbiology and Immunology</i> , 2015, 404, 95-128.	1.1	3
21	The Widespread Multidrug-Resistant Serotype O12 <i>Pseudomonas aeruginosa</i> Clone Emerged through Concomitant Horizontal Transfer of Serotype Antigen and Antibiotic Resistance Gene Clusters. <i>MBio</i> , 2015, 6, e01396-15.	4.1	47
22	Visualizing and quantifying <i>Pseudomonas aeruginosa</i> infection in the hindbrain ventricle of zebrafish using confocal laser scanning microscopy. <i>Journal of Microbiological Methods</i> , 2015, 117, 85-94.	1.6	17
23	Single-Nucleotide Polymorphisms Found in the <i>migA</i> and <i>wbpX</i> Glycosyltransferase Genes Account for the Intrinsic Lipopolysaccharide Defects Exhibited by <i>Pseudomonas aeruginosa</i> PA14. <i>Journal of Bacteriology</i> , 2015, 197, 2780-2791.	2.2	24
24	Polymyxin Susceptibility in <i>Pseudomonas aeruginosa</i> Linked to the MexXY-OprM Multidrug Efflux System. <i>Antimicrobial Agents and Chemotherapy</i> , 2015, 59, 7276-7289.	3.2	18
25	Synthesis of bacterial polysaccharides via the Wzx/Wzy-dependent pathway. <i>Canadian Journal of Microbiology</i> , 2014, 60, 697-716.	1.7	220
26	Rapid Evolution of Culture-Impaired Bacteria during Adaptation to Biofilm Growth. <i>Cell Reports</i> , 2014, 6, 293-300.	6.4	57
27	Influence of O Polysaccharides on Biofilm Development and Outer Membrane Vesicle Biogenesis in <i>Pseudomonas aeruginosa</i> PAO1. <i>Journal of Bacteriology</i> , 2014, 196, 1306-1317.	2.2	122
28	LPS Quantitation Procedures. <i>Methods in Molecular Biology</i> , 2014, 1149, 375-402.	0.9	26
29	The D3 Bacteriophage λ -Polymerase Inhibitor (<i>lap</i>) Peptide Disrupts O-Antigen Biosynthesis through Mimicry of the Chain Length Regulator <i>Wzz</i> in <i>Pseudomonas aeruginosa</i> . <i>Journal of Bacteriology</i> , 2013, 195, 4735-4741.	2.2	21
30	Characterization of the Polymyxin B Resistome of <i>Pseudomonas aeruginosa</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2013, 57, 110-119.	3.2	136
31	Five New Genes Are Important for Common Polysaccharide Antigen Biosynthesis in <i>Pseudomonas aeruginosa</i> . <i>MBio</i> , 2013, 4, e00631-12.	4.1	19
32	A deletion in the <i>wapB</i> 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 β -pyocin. <i>Molecular Microbiology</i> , 2013, 89, 464-478.	2.5	17
33	Conserved-residue mutations in <i>Wzy</i> affect O-antigen polymerization and <i>Wzz</i> -mediated chain-length regulation in <i>Pseudomonas aeruginosa</i> PAO1. <i>Scientific Reports</i> , 2013, 3, 3441.	3.3	40
34	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 <i>Pseudomonas aeruginosa</i> . <i>Journal of Bacteriology</i> , 2012, 194, 4295-4300.	2.2	12
35	Wzx flippase-mediated membrane translocation of sugar polymer precursors in bacteria. <i>Environmental Microbiology Reports</i> , 2012, , n/a-n/a.	2.4	0
36	Genetic and Functional Diversity of <i>Pseudomonas aeruginosa</i> Lipopolysaccharide. <i>Frontiers in Microbiology</i> , 2011, 2, 118.	3.5	217

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37	Evidence that WapB Is a 1,2-Glucosyltransferase of <i>Pseudomonas aeruginosa</i> Involved in Lipopolysaccharide Outer Core Biosynthesis. <i>Journal of Bacteriology</i> , 2011, 193, 2708-2716.	2.2	11
38	Differential Lipopolysaccharide Core Capping Leads to Quantitative and Correlated Modifications of Mechanical and Structural Properties in <i>Pseudomonas aeruginosa</i> Biofilms. <i>Journal of Bacteriology</i> , 2009, 191, 6618-6631.	2.2	99
39	Truncation in the core oligosaccharide of lipopolysaccharide affects flagella-mediated motility in <i>Pseudomonas aeruginosa</i> PAO1 via modulation of cell surface attachment. <i>Microbiology (United Kingdom)</i> , 2011, 155, 1431-1440.	1.0	4
40	Absolute Quantitation of Bacterial Biofilm Adhesion and Viscoelasticity by Microbead Force Spectroscopy. <i>Biophysical Journal</i> , 2009, 96, 2935-2948.	0.5	139
41	Review: Lipopolysaccharide biosynthesis in <i>Pseudomonas aeruginosa</i> . <i>Innate Immunity</i> , 2009, 15, 261-312.	2.4	278
42	The structural basis for catalytic function of GMD and RMD, two closely related enzymes from the GDP-mannose biosynthesis pathway. <i>FEBS Journal</i> , 2009, 276, 2686-2700.	4.7	41
43	Biosynthesis of a Rare Di-N-Acetylated Sugar in the Lipopolysaccharides of both <i>Pseudomonas aeruginosa</i> and <i>Bordetella pertussis</i> Occurs via an Identical Scheme despite Different Gene Clusters. <i>Journal of Bacteriology</i> , 2008, 190, 6060-6069.	2.2	28
44	lfnA from <i>Pseudomonas aeruginosa</i> O12 and wbuX from <i>Escherichia coli</i> O145 Encode Membrane-Associated Proteins and Are Required for Expression of 2,6-Dideoxy-2-Acetamidino-1-Galactose in Lipopolysaccharide O Antigen. <i>Journal of Bacteriology</i> , 2008, 190, 1671-1679.	2.2	22
45	Flagellin Glycosylation in <i>Pseudomonas aeruginosa</i> PAK Requires the O-antigen Biosynthesis Enzyme WbpO. <i>Journal of Biological Chemistry</i> , 2008, 283, 3507-3518.	3.4	44
46	Functional Characterization of MigA and WapR: Putative Rhamnosyltransferases Involved in Outer Core Oligosaccharide Biosynthesis of <i>Pseudomonas aeruginosa</i> . <i>Journal of Bacteriology</i> , 2008, 190, 1857-1865.	2.2	54
47	Coexistence of Two Distinct Versions of O-Antigen Polymerase, Wzy-Alpha and Wzy-Beta, in <i>Pseudomonas aeruginosa</i> Serogroup O2 and Their Contributions to Cell Surface Diversity. <i>Journal of Bacteriology</i> , 2007, 189, 4141-4152.	2.2	20
48	Biochemical Characterization of MsbA from <i>Pseudomonas aeruginosa</i> . <i>Journal of Biological Chemistry</i> , 2007, 282, 26939-26947.	3.4	26
49	WaaL of <i>Pseudomonas aeruginosa</i> utilizes ATP in <i>in vitro</i> ligation of O antigen onto lipid A core. <i>Molecular Microbiology</i> , 2007, 65, 1345-1359.	2.5	52
50	Microcolony formation: a novel biofilm model of <i>Pseudomonas aeruginosa</i> for the cystic fibrosis lung. <i>Journal of Medical Microbiology</i> , 2005, 54, 667-676.	1.8	314
51	Functional Characterization of WaaL, a Ligase Associated with Linking O-Antigen Polysaccharide to the Core of <i>Pseudomonas aeruginosa</i> Lipopolysaccharide. <i>Journal of Bacteriology</i> , 2005, 187, 3002-3012.	2.2	127
52	Three-component-mediated serotype conversion in <i>Pseudomonas aeruginosa</i> by bacteriophage D3. <i>Molecular Microbiology</i> , 2004, 39, 1237-1247.	2.5	86
53	<i>Pseudomonas aeruginosa</i> O-antigen chain length is determined before ligation to lipid A core. <i>Environmental Microbiology</i> , 2002, 4, 883-897.	3.8	75
54	Structural analysis of the carbohydrate components of the outer membrane of the lipopolysaccharide-lacking cellulolytic ruminal bacterium <i>Fibrobacter succinogenes</i> S85. <i>FEBS Journal</i> , 2001, 268, 3566-3576.	0.2	31

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55	Cloning and functional characterization of the <i>Pseudomonas aeruginosa</i> rhlC gene that encodes rhamnosyltransferase 2, an enzyme responsible for di-rhamnolipid biosynthesis. <i>Molecular Microbiology</i> , 2001, 40, 708-718.	2.5	237
56	Three-component-mediated serotype conversion in <i>Pseudomonas aeruginosa</i> by bacteriophage D3. <i>Molecular Microbiology</i> , 2001, 39, 1237-1247.	2.5	4
57	Lipopolysaccharide core phosphates are required for viability and intrinsic drug resistance in <i>Pseudomonas aeruginosa</i> . <i>Molecular Microbiology</i> , 2000, 35, 718-727.	2.5	81
58	Structural characterization of the outer core and the O-chain linkage region of lipopolysaccharide from <i>Pseudomonas aeruginosa</i> serotype O5. <i>FEBS Journal</i> , 2000, 267, 1640-1650.	0.2	79
59	<i>Pseudomonas aeruginosa</i> B-band lipopolysaccharide genes wbpA and wbpL and their <i>Escherichia coli</i> homologues wecC and wecB are not functionally interchangeable. <i>FEMS Microbiology Letters</i> , 2000, 189, 135-141.	1.8	16
60	Functional Conservation of the Polysaccharide Biosynthetic Protein WbpM and Its Homologues in <i>Pseudomonas aeruginosa</i> and Other Medically Significant Bacteria. <i>Infection and Immunity</i> , 2000, 68, 931-936.	2.2	43
61	migA, a quorum-responsive gene of <i>Pseudomonas aeruginosa</i> , is highly expressed in the cystic fibrosis lung environment and modifies low-molecular-mass lipopolysaccharide. <i>Microbiology (United Kingdom)</i> , 2000, 146, 2803-2814.	1.8	107
62	Involvement of the rml locus in core oligosaccharide and O polysaccharide assembly in <i>Pseudomonas aeruginosa</i> . <i>Microbiology (United Kingdom)</i> , 2000, 146, 2803-2814.	1.8	107
63	Functional analysis of genes responsible for the synthesis of the B-band O antigen of <i>Pseudomonas aeruginosa</i> serotype O6 lipopolysaccharide. The GenBank accession number for the sequence reported in this paper is AF035937. <i>Microbiology (United Kingdom)</i> , 1999, 145, 3505-3521.	1.8	102
64	Synthesis of the A-band polysaccharide sugar D-rhamnose requires Rmd and WbpW: identification of multiple AlgA homologues, WbpW and ORF488, in <i>Pseudomonas aeruginosa</i> . <i>Molecular Microbiology</i> , 1999, 31, 397-398.	2.5	0
65	Effect of wzx (rfbX) Mutations on A-Band and B-Band Lipopolysaccharide Biosynthesis in <i>Pseudomonas aeruginosa</i> O5. <i>Journal of Bacteriology</i> , 1999, 181, 973-980.	2.2	74
66	Structural elucidation of the lipopolysaccharide core regions of the wild-type strain PAO1 and O-chain-deficient mutant strains AK1401 and AK1012 from <i>Pseudomonas aeruginosa</i> serotype O5. <i>FEBS Journal</i> , 1998, 255, 673-684.	0.2	75
67	Three rhamnosyltransferases responsible for assembly of the A-band D-rhamnan polysaccharide in <i>Pseudomonas aeruginosa</i> : a fourth transferase, WbpL, is required for the initiation of both A-band and B-band lipopolysaccharide synthesis. <i>Molecular Microbiology</i> , 1998, 28, 1103-1119.	2.5	123
68	Synthesis of the A-band polysaccharide sugar D-rhamnose requires Rmd and WbpW: identification of multiple AlgA homologues, WbpW and ORF488, in <i>Pseudomonas aeruginosa</i> . <i>Molecular Microbiology</i> , 1998, 29, 1419-1434.	2.5	55
69	<i>Pseudomonas aeruginosa</i> antigens as potential vaccines. <i>FEMS Microbiology Reviews</i> , 1997, 21, 243-277.	8.6	77
70	Molecular genetic analysis of the region containing the essential <i>Pseudomonas aeruginosa</i> asd gene encoding aspartate- β -semialdehyde dehydrogenase. <i>Microbiology (United Kingdom)</i> , 1997, 143, 899-907.	1.8	29
71	Physical mapping of 32 genetic markers on the <i>Pseudomonas aeruginosa</i> PAO1 chromosome. <i>Microbiology (United Kingdom)</i> , 1996, 142, 79-86.	1.8	22
72	Molecular cloning and characterization of the rfc gene of <i>Pseudomonas aeruginosa</i> (serotype O5). <i>Molecular Microbiology</i> , 1995, 16, 565-574.	2.5	72

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73	Characterization of non-typable strains of <i>Pseudomonas aeruginosa</i> from cystic fibrosis patients by means of monoclonal antibodies and SDS-polyacrylamide gel electrophoresis. <i>Serodiagnosis and Immunotherapy in Infectious Disease</i> , 1988, 2, 365-374.	0.2	15