

Daniel C Nelson

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

5,218
citations

117625

34
h-index

88630

70
g-index

82
all docs

82
docs citations

82
times ranked

4136
citing authors

#	ARTICLE	IF	CITATIONS
1	A bacteriolytic agent that detects and kills <i>Bacillus anthracis</i> . <i>Nature</i> , 2002, 418, 884-889.	27.8	585
2	Prevention and elimination of upper respiratory colonization of mice by group A streptococci by using a bacteriophage lytic enzyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 4107-4112.	7.1	468
3	Rapid Killing of <i>Streptococcus pneumoniae</i> with a Bacteriophage Cell Wall Hydrolase. <i>Science</i> , 2001, 294, 2170-2172.	12.6	452
4	Endolysins as Antimicrobials. <i>Advances in Virus Research</i> , 2012, 83, 299-365.	2.1	291
5	PlyC: A multimeric bacteriophage lysin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 10765-10770.	7.1	197
6	Identification of a Broadly Active Phage Lytic Enzyme with Lethal Activity against Antibiotic-Resistant <i>Enterococcus faecalis</i> and <i>Enterococcus faecium</i> . <i>Journal of Bacteriology</i> , 2004, 186, 4808-4812.	2.2	196
7	Removal of Group B Streptococci Colonizing the Vagina and Oropharynx of Mice with a Bacteriophage Lytic Enzyme. <i>Antimicrobial Agents and Chemotherapy</i> , 2005, 49, 111-117.	3.2	193
8	Purification and Characterization of Biofilm-Associated EPS Exopolysaccharides from ESKAPE Organisms and Other Pathogens. <i>PLoS ONE</i> , 2013, 8, e67950.	2.5	178
9	Comparative Properties of Two Cysteine Proteinases (Gingipains R), the Products of Two Related but Individual Genes of <i>Porphyromonas gingivalis</i> . <i>Journal of Biological Chemistry</i> , 1998, 273, 21648-21657.	3.4	155
10	Reinventing phage therapy: are the parts greater than the sum?. <i>Nature Biotechnology</i> , 2006, 24, 1508-1511.	17.5	154
11	Cysteine proteinase SpeB from <i>Streptococcus pyogenes</i> a potent modifier of immunologically important host and bacterial proteins. <i>Biological Chemistry</i> , 2011, 392, 1077-1088.	2.5	138
12	Evolutionarily distinct bacteriophage endolysins featuring conserved peptidoglycan cleavage sites protect mice from MRSA infection. <i>Journal of Antimicrobial Chemotherapy</i> , 2015, 70, 1453-1465.	3.0	122
13	Group A Streptococcus (GAS) Carbohydrate as an Immunogen for Protection against GAS Infection. <i>Journal of Infectious Diseases</i> , 2006, 193, 129-135.	4.0	117
14	Rapid degradation of <i>Streptococcus pyogenes</i> biofilms by PlyC, a bacteriophage-encoded endolysin. <i>Journal of Antimicrobial Chemotherapy</i> , 2013, 68, 1818-1824.	3.0	88
15	Prolyl Tripeptidyl Peptidase from <i>Porphyromonas gingivalis</i> . <i>Journal of Biological Chemistry</i> , 1999, 274, 9246-9252.	3.4	81
16	The 1.6Å Crystal Structure of the Catalytic Domain of PlyB, a Bacteriophage Lysin Active Against <i>Bacillus anthracis</i> . <i>Journal of Molecular Biology</i> , 2007, 366, 540-550.	4.2	81
17	X-ray crystal structure of the streptococcal specific phage lysin PlyC. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 12752-12757.	7.1	80
18	Triple-acting Lytic Enzyme Treatment of Drug-Resistant and Intracellular <i>Staphylococcus aureus</i> . <i>Scientific Reports</i> , 2016, 6, 25063.	3.3	77

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19	PlyPH, a Bacteriolytic Enzyme with a Broad pH Range of Activity and Lytic Action against <i>Bacillus anthracis</i> . <i>Journal of Bacteriology</i> , 2006, 188, 2711-2714.	2.2	74
20	Characterization of AlgMsp, an Alginate Lyase from <i>Microbulbifer</i> sp. 6532A. <i>PLoS ONE</i> , 2014, 9, e112939.	2.5	69
21	Biochemical and biophysical characterization of PlyGRCS, a bacteriophage endolysin active against methicillin-resistant <i>Staphylococcus aureus</i> . <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 741-752.	3.6	66
22	A chimeolysin with extended-spectrum streptococcal host range found by an induced lysis-based rapid screening method. <i>Scientific Reports</i> , 2015, 5, 17257.	3.3	65
23	Emerging Family of Proline-Specific Peptidases of <i>Porphyromonas gingivalis</i> : Purification and Characterization of Serine Dipeptidyl Peptidase, a Structural and Functional Homologue of Mammalian Prolyl Dipeptidyl Peptidase IV. <i>Infection and Immunity</i> , 2000, 68, 1176-1182.	2.2	64
24	A bacteriophage endolysin that eliminates intracellular streptococci. <i>ELife</i> , 2016, 5, .	6.0	64
25	Phage Taxonomy: We Agree To Disagree. <i>Journal of Bacteriology</i> , 2004, 186, 7029-7031.	2.2	59
26	Purification and Characterization of a Novel Cysteine Proteinase (Periodontain) from <i>Porphyromonas gingivalis</i> . <i>Journal of Biological Chemistry</i> , 1999, 274, 12245-12251.	3.4	58
27	Use of a Bacteriophage Lysin, PlyC, as an Enzyme Disinfectant against <i>Streptococcus equi</i> . <i>Applied and Environmental Microbiology</i> , 2009, 75, 1388-1394.	3.1	56
28	Challenging the state of the art in protein structure prediction: Highlights of experimental target structures for the 10th Critical Assessment of Techniques for Protein Structure Prediction Experiment CASP10. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 26-42.	2.6	53
29	pH-regulated Secretion of a Glyceraldehyde-3-Phosphate Dehydrogenase from <i>Streptococcus gordonii</i> FSS2: Purification, Characterization, and Cloning of the Gene Encoding this Enzyme. <i>Journal of Dental Research</i> , 2001, 80, 371-377.	5.2	52
30	Genomic Sequence of C 1 , the First Streptococcal Phage. <i>Journal of Bacteriology</i> , 2003, 185, 3325-3332.	2.2	51
31	Characterization of a bacteriophage lysin (Ply700) from <i>Streptococcus uberis</i> . <i>Veterinary Microbiology</i> , 2008, 130, 107-117.	1.9	49
32	Ratiometric Fluorescence Detection of Pathogenic Bacteria Resistant to Broad-Spectrum β -Lactam Antibiotics. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 1865-1868.	13.8	46
33	Safety Studies of Pneumococcal Endolysins Cpl-1 and Pal. <i>Viruses</i> , 2018, 10, 638.	3.3	40
34	Antibiofilm Activities of a Novel Chimeolysin against <i>Streptococcus mutans</i> under Physiological and Cariogenic Conditions. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 7436-7443.	3.2	37
35	Computational models in the service of X-ray and cryo-electron microscopy structure determination. <i>Proteins: Structure, Function and Bioinformatics</i> , 2021, 89, 1633-1646.	2.6	37
36	Increasing the stability of the bacteriophage endolysin PlyC using rationale-based FoldX computational modeling. <i>Protein Engineering, Design and Selection</i> , 2015, 28, 85-92.	2.1	32

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37	Comparative Cleavage Sites within the Reactive-Site Loop of Native and Oxidized $\hat{\pm}$ 1-Proteinase Inhibitor by Selected Bacterial Proteinases. <i>Biological Chemistry</i> , 1999, 380, 1211-6.	2.5	31
38	PlyC, a novel bacteriophage lysin for compartmentâ€•dependent proteomics of group A streptococci. <i>Proteomics</i> , 2008, 8, 140-148.	2.2	25
39	Discovery and Biochemical Characterization of PlyP56, PlyN74, and PlyTB40â€•Bacillus Specific Endolysins. <i>Viruses</i> , 2018, 10, 276.	3.3	25
40	Extracellular Arginine Aminopeptidase from <i>Streptococcus gordonii</i> FSS2. <i>Infection and Immunity</i> , 2002, 70, 836-843.	2.2	24
41	Structure and tailspike glycosidase machinery of ORF212 from <i>E. coli</i> O157:H7 phage CBA120 (TSP3). <i>Scientific Reports</i> , 2019, 9, 7349.	3.3	23
42	Middle region of the <i>Borrelia burgdorferi</i> surface-located protein 1 (Lmp1) interacts with host chondroitin-6-sulfate and independently facilitates infection. <i>Cellular Microbiology</i> , 2016, 18, 97-110.	2.1	22
43	The PlyB Endolysin of Bacteriophage ν B_BanS_Bcp1 Exhibits Broad-Spectrum Bactericidal Activity against <i>Bacillus cereus</i> Sensu Lato Isolates. <i>Applied and Environmental Microbiology</i> , 2019, 85, .	3.1	22
44	A Genetic Screen to Identify Bacteriophage Lysins. <i>Methods in Molecular Biology</i> , 2009, 502, 307-319.	0.9	22
45	Critical cell wall hole size for lysis in Gram-positive bacteria. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20120892.	3.4	21
46	ClyJ Is a Novel Pneumococcal Chimeric Lysin with a Cysteine- and Histidine-Dependent Amidohydrolase/Peptidase Catalytic Domain. <i>Antimicrobial Agents and Chemotherapy</i> , 2019, 63, .	3.2	21
47	Linker Editing of Pneumococcal Lysin ClyJ Conveys Improved Bactericidal Activity. <i>Antimicrobial Agents and Chemotherapy</i> , 2020, 64, .	3.2	21
48	Crystal Structure of ORF210 from <i>E. coli</i> O157:H1 Phage CBA120 (TSP1), a Putative Tailspike Protein. <i>PLoS ONE</i> , 2014, 9, e93156.	2.5	18
49	Complete Genome Sequence of <i>Klebsiella pneumoniae</i> Phages SopranoGao, MezzoGao, and AltoGao. <i>Genome Announcements</i> , 2017, 5, .	0.8	18
50	Application of bacteriophage-derived endolysins to combat streptococcal disease: current state and perspectives. <i>Current Opinion in Biotechnology</i> , 2021, 68, 213-220.	6.6	18
51	Inactivation of $\hat{\pm}$ 1-Proteinase Inhibitor as a Broad Screen for Detecting Proteolytic Activities in Unknown Samples. <i>Analytical Biochemistry</i> , 1998, 260, 230-236.	2.4	17
52	Extracellular proteolytic activities expressed by <i>Bacillus pumilus</i> isolated from endodontic and periodontal lesions. <i>Journal of Medical Microbiology</i> , 2008, 57, 643-651.	1.8	17
53	A New Screening Method for the Directed Evolution of Thermostable Bacteriolytic Enzymes. <i>Journal of Visualized Experiments</i> , 2012, , .	0.3	17
54	Characterization of the Bacteriophage-Derived Endolysins PlySs2 and PlySs9 with In Vitro Lytic Activity against Bovine Mastitis <i>Streptococcus uberis</i> . <i>Antibiotics</i> , 2020, 9, 621.	3.7	17

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55	The Mga Regulon but Not Deoxyribonuclease Sda1 of Invasive MIT1 Group A Streptococcus Contributes to <i>In Vivo</i> Selection of CovRS Mutations and Resistance to Innate Immune Killing Mechanisms. <i>Infection and Immunity</i> , 2015, 83, 4293-4303.	2.2	16
56	Structure and function of bacteriophage CBA120 ORF211 (TSP2), the determinant of phage specificity towards <i>E. coli</i> O157:H7. <i>Scientific Reports</i> , 2020, 10, 15402.	3.3	15
57	Determining Carbapenemase Activity with ¹⁸ O Labeling and Targeted Mass Spectrometry. <i>Analytical Chemistry</i> , 2013, 85, 11014-11019.	6.5	14
58	Quantitative analysis of the thermal stability of the gamma phage endolysin PlyG: A biophysical and kinetic approach to assaying therapeutic potential. <i>Virology</i> , 2015, 477, 125-132.	2.4	14
59	DNA Dye Sytox Green in Detection of Bacteriolytic Activity: High Speed, Precision and Sensitivity Demonstrated With Endolysins. <i>Frontiers in Microbiology</i> , 2021, 12, 752282.	3.5	13
60	Quantifying enzymatic lysis: estimating the combined effects of chemistry, physiology and physics. <i>Physical Biology</i> , 2010, 7, 046002.	1.8	12
61	Complete Genome Sequence of <i>Bacillus cereus</i> <i>Sensu Lato</i> Bacteriophage Bcp1. <i>Genome Announcements</i> , 2014, 2, .	0.8	12
62	Short communication: Recombinant bacteriophage endolysin PlyC is nontoxic and does not alter blood neutrophil oxidative response in lactating dairy cows. <i>Journal of Dairy Science</i> , 2018, 101, 6419-6423.	3.4	11
63	Contributions of Net Charge on the PlyC Endolysin CHAP Domain. <i>Antibiotics</i> , 2019, 8, 70.	3.7	10
64	Structure of <i>Escherichia coli</i> O157:H7 bacteriophage CBA120 tailspike protein 4 baseplate anchor and tailspike assembly domains (TSP4-N). <i>Scientific Reports</i> , 2022, 12, 2061.	3.3	10
65	Characterization of LysBC17, a Lytic Endopeptidase from <i>Bacillus cereus</i> . <i>Antibiotics</i> , 2019, 8, 155.	3.7	9
66	High avidity drives the interaction between the streptococcal C1 phage endolysin, PlyC, with the cell surface carbohydrates of Group A <i>Streptococcus</i> . <i>Molecular Microbiology</i> , 2021, 116, 397-415.	2.5	9
67	Can bacteriophage endolysins be nebulised for inhalation delivery against <i>Streptococcus pneumoniae</i> ?. <i>International Journal of Pharmaceutics</i> , 2020, 591, 119982.	5.2	8
68	Enzybiotics: Endolysins and Bacteriocins. , 2021, , 989-1030.		8
69	Complete Genome Sequence of <i>Staphylococcus aureus</i> Phage GRCS. <i>Genome Announcements</i> , 2014, 2, .	0.8	6
70	<i>Borrelia burgdorferi</i> surface-located Lmp1 protein processed into region-specific polypeptides that are critical for microbial persistence. <i>Cellular Microbiology</i> , 2018, 20, e12855.	2.1	6
71	Molecular basis for recognition of the Group A Carbohydrate backbone by the PlyC streptococcal bacteriophage endolysin. <i>Biochemical Journal</i> , 2021, 478, 2385-2397.	3.7	6
72	Enzybiotics: Endolysins and Bacteriocins. , 2018, , 1-42.		4

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73	The cysteine proteinase SpeB from <i>Streptococcus pyogenes</i> a potent modifier of immunologically important host and bacterial proteins. <i>Biological Chemistry</i> , 0, , ---.	2.5	4
74	Controlled Proteolysis of an Essential Virulence Determinant Dictates Infectivity of Lyme Disease Pathogens. <i>Infection and Immunity</i> , 2022, 90, e0005922.	2.2	4
75	Effect of Dietary Cholesterol on Rat Glomerular Cholesterol Esterase. <i>American Journal of Nephrology</i> , 1993, 13, 478-482.	3.1	1
76	The streptococcal group A carbohydrate protects against nasal colonization with group A streptococci in mice. <i>International Congress Series</i> , 2006, 1289, 329-331.	0.2	1
77	Bacteriophage Lytic Enzymes as Antimicrobials. , 0, , 137-156.		1
78	Physical models of bacteriophage lytic enzymes: Sidwell Friends School S.M.A.R.T. Team Project. <i>FASEB Journal</i> , 2011, 25, lb163.	0.5	0