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	Structure of Escherichia coli O157:H7 bacteriophage CBA120 tailspike protein 4 baseplate anchor and tailspike assembly domains (TSP4-N). Scientific Reports, 2022, 12, 2061.	3.3	10
2	Controlled Proteolysis of an Essential Virulence Determinant Dictates Infectivity of Lyme Disease Pathogens. Infection and Immunity, 2022, 90, e0005922.	2.2	4
3	Application of bacteriophage-derived endolysins to combat streptococcal disease: current state and perspectives. Current Opinion in Biotechnology, 2021, 68, 213-220.	6.6	18
4	High avidity drives the interaction between the streptococcal C1 phage endolysin, PlyC, with the cell surface carbohydrates of Group A Streptococcus. Molecular Microbiology, 2021, 116, 397-415.	2.5	9
5	Molecular basis for recognition of the Group A Carbohydrate backbone by the PlyC streptococcal bacteriophage endolysin. Biochemical Journal, 2021, 478, 2385-2397.	3.7	6
6	Computational models in the service of Xâ€ray and <scp>cryoâ€</scp>electron microscopy structure determination. Proteins: Structure, Function and Bioinformatics, 2021, 89, 1633-1646.	2.6	37
7	Enzybiotics: Endolysins and Bacteriocins. , 2021, , 989-1030.		8
8	DNA Dye Sytox Green in Detection of Bacteriolytic Activity: High Speed, Precision and Sensitivity Demonstrated With Endolysins. Frontiers in Microbiology, 2021, 12, 752282.	3.5	13
9	Can bacteriophage endolysins be nebulised for inhalation delivery against Streptococcus pneumoniae?. International Journal of Pharmaceutics, 2020, 591, 119982.	5.2	8
10	Characterization of the Bacteriophage-Derived Endolysins PlySs2 and PlySs9 with In Vitro Lytic Activity against Bovine Mastitis Streptococcus uberis. Antibiotics, 2020, 9, 621.	3.7	17
11	Structure and function of bacteriophage CBA120 ORF211 (TSP2), the determinant of phage specificity towards E. coli O157:H7. Scientific Reports, 2020, 10, 15402.	3.3	15
12	Linker Editing of Pneumococcal Lysin ClyJ Conveys Improved Bactericidal Activity. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	21
13	Characterization of LysBC17, a Lytic Endopeptidase from Bacillus cereus. Antibiotics, 2019, 8, 155.	3.7	9
14	Structure and tailspike glycosidase machinery of ORF212 from E. coli O157:H7 phage CBA120 (TSP3). Scientific Reports, 2019, 9, 7349.	3.3	23
15	Contributions of Net Charge on the PlyC Endolysin CHAP Domain. Antibiotics, 2019, 8, 70.	3.7	10
16	The PlyB Endolysin of Bacteriophage vB_BanS_Bcp1 Exhibits Broad-Spectrum Bactericidal Activity against Bacillus cereus Sensu Lato Isolates. Applied and Environmental Microbiology, 2019, 85, .	3.1	22
17	ClyJ Is a Novel Pneumococcal Chimeric Lysin with a Cysteine- and Histidine-Dependent Amidohydrolase/Peptidase Catalytic Domain. Antimicrobial Agents and Chemotherapy, 2019, 63, .	3.2	21
18	Safety Studies of Pneumococcal Endolysins Cpl-1 and Pal. Viruses, 2018, 10, 638.	3.3	40

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19	Discovery and Biochemical Characterization of PlyP56, PlyN74, and PlyTB40â€"Bacillus Specific Endolysins. Viruses, 2018, 10, 276.	3.3	25
20	Borrelia burgdorferisurface-located Lmp1 protein processed into region-specific polypeptides that are critical for microbial persistence. Cellular Microbiology, 2018, 20, e12855.	2.1	6
21	Short communication: Recombinant bacteriophage endolysin PlyC is nontoxic and does not alter blood neutrophil oxidative response in lactating dairy cows. Journal of Dairy Science, 2018, 101, 6419-6423.	3.4	11
22	Enzybiotics: Endolysins and Bacteriocins. , 2018, , 1-42.		4
23	Complete Genome Sequence of Klebsiella pneumoniae Phages SopranoGao, MezzoGao, and AltoGao. Genome Announcements, 2017, 5, .	0.8	18
24	Middle region of theBorrelia burgdorferisurface-located protein 1 (Lmp1) interacts with host chondroitin-6-sulfate and independently facilitates infection. Cellular Microbiology, 2016, 18, 97-110.	2.1	22
25	Antibiofilm Activities of a Novel Chimeolysin against Streptococcus mutans under Physiological and Cariogenic Conditions. Antimicrobial Agents and Chemotherapy, 2016, 60, 7436-7443.	3.2	37
26	Triple-acting Lytic Enzyme Treatment of Drug-Resistant and Intracellular Staphylococcus aureus. Scientific Reports, 2016, 6, 25063.	3.3	77
27	A bacteriophage endolysin that eliminates intracellular streptococci. ELife, 2016, 5, .	6.0	64
28	A chimeolysin with extended-spectrum streptococcal host range found by an induced lysis-based rapid screening method. Scientific Reports, 2015, 5, 17257.	3.3	65
29	The Mga Regulon but Not Deoxyribonuclease Sda1 of Invasive M1T1 Group A Streptococcus Contributes to In Vivo Selection of CovRS Mutations and Resistance to Innate Immune Killing Mechanisms. Infection and Immunity, 2015, 83, 4293-4303.	2.2	16
30	Evolutionarily distinct bacteriophage endolysins featuring conserved peptidoglycan cleavage sites protect mice from MRSA infection. Journal of Antimicrobial Chemotherapy, 2015, 70, 1453-1465.	3.0	122
31	Quantitative analysis of the thermal stability of the gamma phage endolysin PlyG: A biophysical and kinetic approach to assaying therapeutic potential. Virology, 2015, 477, 125-132.	2.4	14
32	Increasing the stability of the bacteriophage endolysin PlyC using rationale-based FoldX computational modeling. Protein Engineering, Design and Selection, 2015, 28, 85-92.	2.1	32
33	Biochemical and biophysical characterization of PlyGRCS, a bacteriophage endolysin active against methicillin-resistant Staphylococcus aureus. Applied Microbiology and Biotechnology, 2015, 99, 741-752.	3.6	66
34	Crystal Structure of ORF210 from E. coli O157:H1 Phage CBA120 (TSP1), a Putative Tailspike Protein. PLoS ONE, 2014, 9, e93156.	2.5	18
35	Complete Genome Sequence of Bacillus cereus Sensu Lato Bacteriophage Bcp1. Genome Announcements, 2014, 2, .	0.8	12
36	Complete Genome Sequence of Staphylococcus aureus Phage GRCS. Genome Announcements, 2014, 2, .	0.8	6

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37	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. Proteins: Structure, Function and Bioinformatics, 2014, 82, 26-42.	2.6	53
38	Characterization of AlgMsp, an Alginate Lyase from Microbulbifer sp. 6532A. PLoS ONE, 2014, 9, e112939.	2.5	69
39	Determining Carbapenemase Activity with ¹⁸O Labeling and Targeted Mass Spectrometry. Analytical Chemistry, 2013, 85, 11014-11019.	6.5	14
40	Rapid degradation of Streptococcus pyogenes biofilms by PlyC, a bacteriophage-encoded endolysin. Journal of Antimicrobial Chemotherapy, 2013, 68, 1818-1824.	3.0	88
41	Critical cell wall hole size for lysis in Gram-positive bacteria. Journal of the Royal Society Interface, 2013, 10, 20120892.	3.4	21
42	Purification and Characterization of Biofilm-Associated EPS Exopolysaccharides from ESKAPE Organisms and Other Pathogens. PLoS ONE, 2013, 8, e67950.	2.5	178
43	X-ray crystal structure of the streptococcal specific phage lysin PlyC. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12752-12757.	7.1	80
44	A New Screening Method for the Directed Evolution of Thermostable Bacteriolytic Enzymes. Journal of Visualized Experiments, 2012, , .	0.3	17
45	Endolysins as Antimicrobials. Advances in Virus Research, 2012, 83, 299-365.	2.1	291
46	Ratiometric Fluorescence Detection of Pathogenic Bacteria Resistant to Broadâ€Spectrum Î²â€Lactam Antibiotics. Angewandte Chemie - International Edition, 2012, 51, 1865-1868.	13.8	46
47	Cysteine proteinase SpeB from Streptococcus pyogenes â€“ a potent modifier of immunologically important host and bacterial proteins. Biological Chemistry, 2011, 392, 1077-1088.	2.5	138
48	Physical models of bacteriophage lytic enzymes: Sidwell Friends School S.M.A.R.T. Team Project. FASEB Journal, 2011, 25, lb163.	0.5	0
49	Quantifying enzymatic lysis: estimating the combined effects of chemistry, physiology and physics. Physical Biology, 2010, 7, 046002.	1.8	12
50	Use of a Bacteriophage Lysin, PlyC, as an Enzyme Disinfectant againstStreptococcus equi. Applied and Environmental Microbiology, 2009, 75, 1388-1394.	3.1	56
51	A Genetic Screen to Identify Bacteriophage Lysins. Methods in Molecular Biology, 2009, 502, 307-319.	0.9	22
52	PlyC, a novel bacteriophage lysin for compartmentâ€dependent proteomics of group A streptococci. Proteomics, 2008, 8, 140-148.	2.2	25
53	Characterization of a bacteriophage lysin (Ply700) from Streptococcus uberis. Veterinary Microbiology, 2008, 130, 107-117.	1.9	49
54	Extracellular proteolytic activities expressed by Bacillus pumilus isolated from endodontic and periodontal lesions. Journal of Medical Microbiology, 2008, 57, 643-651.	1.8	17

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55	The 1.6ÂÃ... Crystal Structure of the Catalytic Domain of PlyB, a Bacteriophage Lysin Active Against Bacillus anthracis. Journal of Molecular Biology, 2007, 366, 540-550.	4.2	81
56	The streptococcal group A carbohydrate protects against nasal colonization with group A streptococci in mice. International Congress Series, 2006, 1289, 329-331.	0.2	1
57	Reinventing phage therapy: are the parts greater than the sum?. Nature Biotechnology, 2006, 24, 1508-1511.	17.5	154
58	PlyPH, a Bacteriolytic Enzyme with a Broad pH Range of Activity and Lytic Action against Bacillus anthracis. Journal of Bacteriology, 2006, 188, 2711-2714.	2.2	74
59	Group A Streptococcus (GAS) Carbohydrate as an Immunogen for Protection against GAS Infection. Journal of Infectious Diseases, 2006, 193, 129-135.	4.0	117
60	PlyC: A multimeric bacteriophage lysin. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10765-10770.	7.1	197
61	Removal of Group B Streptococci Colonizing the Vagina and Oropharynx of Mice with a Bacteriophage Lytic Enzyme. Antimicrobial Agents and Chemotherapy, 2005, 49, 111-117.	3.2	193
62	Identification of a Broadly Active Phage Lytic Enzyme with Lethal Activity against Antibiotic-Resistant Enterococcus faecalis and Enterococcus faecium. Journal of Bacteriology, 2004, 186, 4808-4812.	2.2	196
63	Phage Taxonomy: We Agree To Disagree. Journal of Bacteriology, 2004, 186, 7029-7031.	2.2	59
64	Genomic Sequence of C 1 , the First Streptococcal Phage. Journal of Bacteriology, 2003, 185, 3325-3332.	2.2	51
65	Extracellular Arginine Aminopeptidase from Streptococcus gordonii FSS2. Infection and Immunity, 2002, 70, 836-843.	2.2	24
66	A bacteriolytic agent that detects and kills Bacillus anthracis. Nature, 2002, 418, 884-889.	27.8	585
67	Rapid Killing of Streptococcus pneumoniae with a Bacteriophage Cell Wall Hydrolase. Science, 2001, 294, 2170-2172.	12.6	452
68	pH-regulated Secretion of a Glyceraldehyde-3-Phosphate Dehydrogenase from Streptococcus gordonii FSS2: Purification, Characterization, and Cloning of the Gene Encoding this Enzyme. Journal of Dental Research, 2001, 80, 371-377.	5.2	52
69	Prevention and elimination of upper respiratory colonization of mice by group A streptococci by using a bacteriophage lytic enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 4107-4112.	7.1	468
70	Emerging Family of Proline-Specific Peptidases of Porphyromonas gingivalis : Purification and Characterization of Serine Dipeptidyl Peptidase, a Structural and Functional Homologue of Mammalian Prolyl Dipeptidyl Peptidase IV. Infection and Immunity, 2000, 68, 1176-1182.	2.2	64
71	Prolyl Tripeptidyl Peptidase from Porphyromonas gingivalis. Journal of Biological Chemistry, 1999, 274, 9246-9252.	3.4	81
72	Comparative Cleavage Sites within the Reactive-Site Loop of Native and Oxidized Î±1-Proteinase Inhibitor by Selected Bacterial Proteinases. Biological Chemistry, 1999, 380, 1211-6.	2.5	31

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73	Purification and Characterization of a Novel Cysteine Proteinase (Periodontain) from Porphyromonas gingivalis. Journal of Biological Chemistry, 1999, 274, 12245-12251.	3.4	58
74	Inactivation of Î±1-Proteinase Inhibitor as a Broad Screen for Detecting Proteolytic Activities in Unknown Samples. Analytical Biochemistry, 1998, 260, 230-236.	2.4	17
75	Comparative Properties of Two Cysteine Proteinases (Gingipains R), the Products of Two Related but Individual Genes ofPorphyromonas gingivalis. Journal of Biological Chemistry, 1998, 273, 21648-21657.	3.4	155
76	Effect of Dietary Cholesterol on Rat Glomerular Cholesterol Esterase. American Journal of Nephrology, 1993, 13, 478-482.	3.1	1
77	Bacteriophage Lytic Enzymes as Antimicrobials. , 0, , 137-156.		1
78	The cysteine proteinase SpeB fromStreptococcus pyogenesâ€“ a potent modifier of immunologically important host and bacterial proteins. Biological Chemistry, 0, , ---.	2.5	4