

Gavin Hugh Thomas

List of Publications by Year in descending order

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Version: 2024-02-01

131
papers

7,189
citations

87723

38
h-index

60497

81
g-index

144
all docs

144
docs citations

144
times ranked

9088
citing authors

#	ARTICLE	IF	CITATIONS
1	Genome Sequence of the Pea Aphid <i>Acyrtosiphon pisum</i> . <i>PLoS Biology</i> , 2010, 8, e1000313.	2.6	913
2	<i>Escherichia coli</i> K-12: a cooperatively developed annotation snapshot--2005. <i>Nucleic Acids Research</i> , 2006, 34, 1-9.	6.5	606
3	A Novel and Ubiquitous System for Membrane Targeting and Secretion of Cofactor-Containing Proteins. <i>Cell</i> , 1998, 93, 93-101.	13.5	446
4	Sialic acid utilization by bacterial pathogens. <i>Microbiology (United Kingdom)</i> , 2007, 153, 2817-2822.	0.7	436
5	Genome Sequence of the Tsetse Fly (<i>Glossina morsitans</i>): Vector of African Trypanosomiasis. <i>Science</i> , 2014, 344, 380-386.	6.0	254
6	Comprehensive identification of RNA-protein interactions in any organism using orthogonal organic phase separation (OOPS). <i>Nature Biotechnology</i> , 2019, 37, 169-178.	9.4	247
7	Genomic insight into the amino acid relations of the pea aphid, <i>Acyrtosiphon pisum</i> , with its symbiotic bacterium <i>Buchnera aphidicola</i> . <i>Insect Molecular Biology</i> , 2010, 19, 249-258.	1.0	219
8	Membrane sequestration of the signal transduction protein GlnK by the ammonium transporter AmtB. <i>EMBO Journal</i> , 2002, 21, 536-545.	3.5	208
9	Tripartite ATP-independent periplasmic (TRAP) transporters in bacteria and archaea. <i>FEMS Microbiology Reviews</i> , 2011, 35, 68-86.	3.9	190
10	<i>Escherichia coli</i> K12 genes essential for the synthesis of c-type cytochromes and a third nitrate reductase located in the periplasm. <i>Molecular Microbiology</i> , 1996, 19, 467-481.	1.2	163
11	Intrinsic challenges in ancient microbiome reconstruction using 16S rRNA gene amplification. <i>Scientific Reports</i> , 2015, 5, 16498.	1.6	153
12	The tripartite ATP-independent periplasmic (TRAP) transporters of bacteria and archaea. <i>FEMS Microbiology Reviews</i> , 2001, 25, 405-424.	3.9	144
13	Competition between <i>Escherichia coli</i> strains expressing either a periplasmic or a membrane-bound nitrate reductase: does Nap confer a selective advantage during nitrate-limited growth?. <i>Biochemical Journal</i> , 1999, 344, 77-84.	1.7	133
14	Sialic acid transport in <i>Haemophilus influenzae</i> is essential for lipopolysaccharide sialylation and serum resistance and is dependent on a novel tripartite ATP-independent periplasmic transporter. <i>Molecular Microbiology</i> , 2005, 58, 1173-1185.	1.2	120
15	The <i>glnKamtB</i> operon. <i>Trends in Genetics</i> , 2000, 16, 11-14.	2.9	119
16	The substrate-binding protein in bacterial ABC transporters: dissecting roles in the evolution of substrate specificity. <i>Biochemical Society Transactions</i> , 2015, 43, 1011-1017.	1.6	115
17	Membrane topology of the Mep/Amt family of ammonium transporters. <i>Molecular Microbiology</i> , 2000, 37, 331-344.	1.2	113
18	Evolutionary diversification of an ancient gene family (rhs) through C-terminal displacement. <i>BMC Genomics</i> , 2009, 10, 584.	1.2	99

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19	A fragile metabolic network adapted for cooperation in the symbiotic bacterium <i>Buchnera aphidicola</i> . <i>BMC Systems Biology</i> , 2009, 3, 24.	3.0	98
20	Water Networks Can Determine the Affinity of Ligand Binding to Proteins. <i>Journal of the American Chemical Society</i> , 2019, 141, 15818-15826.	6.6	98
21	The substrate-binding protein imposes directionality on an electrochemical sodium gradient-driven TRAP transporter. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 1778-1783.	3.3	93
22	In vivo functional characterization of the <i>Escherichia coli</i> ammonium channel AmtB: evidence for metabolic coupling of AmtB to glutamine synthetase. <i>Biochemical Journal</i> , 2005, 390, 215-222.	1.7	89
23	Purification of the <i>Escherichia coli</i> ammonium transporter AmtB reveals a trimeric stoichiometry. <i>Biochemical Journal</i> , 2002, 364, 527-535.	1.7	88
24	Elucidation of a sialic acid metabolism pathway in mucus-foraging <i>Ruminococcus gnavus</i> unravels mechanisms of bacterial adaptation to the gut. <i>Nature Microbiology</i> , 2019, 4, 2393-2404.	5.9	83
25	Conservation of Structure and Mechanism in Primary and Secondary Transporters Exemplified by SiaP, a Sialic Acid Binding Virulence Factor from <i>Haemophilus influenzae</i> . <i>Journal of Biological Chemistry</i> , 2006, 281, 22212-22222.	1.6	81
26	Tripartite ATP-Independent Periplasmic (TRAP) Transporters and Tripartite Tricarboxylate Transporters (TTT): From Uptake to Pathogenicity. <i>Frontiers in Cellular and Infection Microbiology</i> , 2018, 8, 33.	1.8	77
27	Screening of <i>Streptococcus pneumoniae</i> ABC Transporter Mutants Demonstrates that LivJHMGF, a Branched-Chain Amino Acid ABC Transporter, Is Necessary for Disease Pathogenesis. <i>Infection and Immunity</i> , 2009, 77, 3412-3423.	1.0	76
28	The central role of the host cell in symbiotic nitrogen metabolism. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2012, 279, 2965-2973.	1.2	75
29	An ATP-binding cassette-type cysteine transporter in <i>Campylobacter jejuni</i> inferred from the structure of an extracytoplasmic solute receptor protein. <i>Molecular Microbiology</i> , 2005, 57, 143-155.	1.2	72
30	EchoBASE: an integrated post-genomic database for <i>Escherichia coli</i> . <i>Nucleic Acids Research</i> , 2004, 33, D329-D333.	6.5	70
31	Staphyloferrin A as siderophore-component in fluoroquinolone-based Trojan horse antibiotics. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 3461.	1.5	66
32	Genetic and metabolic determinants of nutritional phenotype in an insect-bacterial symbiosis. <i>Molecular Ecology</i> , 2011, 20, 2073-2084.	2.0	60
33	The Effects of Methionine Acquisition and Synthesis on <i>Streptococcus Pneumoniae</i> Growth and Virulence. <i>PLoS ONE</i> , 2013, 8, e49638.	1.1	60
34	Sialic Acid Mutarotation Is Catalyzed by the <i>Escherichia coli</i> β^2 -Propeller Protein YjHT. <i>Journal of Biological Chemistry</i> , 2008, 283, 4841-4849.	1.6	55
35	Caught in a TRAP: substrate-binding proteins in secondary transport. <i>Trends in Microbiology</i> , 2010, 18, 471-478.	3.5	54
36	Novel ligands for the extracellular solute receptors of two bacterial TRAP transporters. <i>Microbiology (United Kingdom)</i> , 2006, 152, 187-198.	0.7	46

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37	Genomic evidence for complementary purine metabolism in the pea aphid, <i>Acyrtosiphon pisum</i> , and its symbiotic bacterium <i>Buchnera aphidicola</i> . <i>Insect Molecular Biology</i> , 2010, 19, 241-248.	1.0	46
38	The Membrane Proteins SiaQ and SiaM Form an Essential Stoichiometric Complex in the Sialic Acid Tripartite ATP-independent Periplasmic (TRAP) Transporter SiaPQM (VC1777â€“1779) from <i>Vibrio cholerae</i> . <i>Journal of Biological Chemistry</i> , 2012, 287, 3598-3608.	1.6	46
39	Characterization of a novel sialic acid transporter of the sodium solute symporter (SSS) family and in vivo comparison with known bacterial sialic acid transporters. <i>FEMS Microbiology Letters</i> , 2010, 304, 47-54.	0.7	44
40	Tripartite ATP-Independent Periplasmic Transporters: Application of a Relational Database for Genome-Wide Analysis of Transporter Gene Frequency and Organization. <i>Journal of Molecular Microbiology and Biotechnology</i> , 2007, 12, 218-226.	1.0	43
41	Tripartite ATP-independent Periplasmic (TRAP) Transporters Use an Arginine-mediated Selectivity Filter for High Affinity Substrate Binding. <i>Journal of Biological Chemistry</i> , 2015, 290, 27113-27123.	1.6	38
42	Sialic acid acquisition in bacteriaâ€“one substrate, many transporters. <i>Biochemical Society Transactions</i> , 2016, 44, 760-765.	1.6	37
43	Competition between <i>Escherichia coli</i> strains expressing either a periplasmic or a membrane-bound nitrate reductase: does Nap confer a selective advantage during nitrate-limited growth?. <i>Biochemical Journal</i> , 1999, 344, 77.	1.7	35
44	The periplasmic nitrate reductase from <i>Escherichia coli</i> : a heterodimeric molybdoprotein with a double-arginine signal sequence and an unusual leader peptide cleavage site. <i>FEMS Microbiology Letters</i> , 1999, 174, 167-171.	0.7	34
45	A different path: Revealing the function of staphylococcal proteins in biofilm formation. <i>FEBS Letters</i> , 2014, 588, 1869-1872.	1.3	34
46	Identification of axillary <i>Staphylococcus</i> sp. involved in the production of the malodorous thioalcohol 3-methyl-3-sufanylhexan-1-ol. <i>FEMS Microbiology Letters</i> , 2015, 362, fnv111.	0.7	34
47	Structural basis of malodour precursor transport in the human axilla. <i>ELife</i> , 2018, 7, .	2.8	34
48	Compensating Stereochemical Changes Allow Murein Tripeptide to Be Accommodated in a Conventional Peptide-binding Protein. <i>Journal of Biological Chemistry</i> , 2011, 286, 31512-31521.	1.6	33
49	Synthesis of citrateâ€“ciprofloxacin conjugates. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 1496-1498.	1.0	32
50	Completing the <i>E. coli</i> proteome: a database of gene products characterised since the completion of the genome sequence. <i>Bioinformatics</i> , 1999, 15, 860-861.	1.8	31
51	PELDOR Spectroscopy Reveals Two Defined States of a Sialic Acid TRAP Transporter SBP in Solution. <i>Biophysical Journal</i> , 2017, 112, 109-120.	0.2	31
52	<i>ECHO</i> LOCATION: an in silico analysis of the subcellular locations of <i>Escherichia coli</i> proteins and comparison with experimentally derived locations. <i>Bioinformatics</i> , 2009, 25, 163-166.	1.8	27
53	Furanose-specific Sugar Transport. <i>Journal of Biological Chemistry</i> , 2009, 284, 31156-31163.	1.6	27
54	Homes for the orphans: utilization of multiple substrate-binding proteins by ABC transporters. <i>Molecular Microbiology</i> , 2010, 75, 6-9.	1.2	26

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55	Uncovering a novel molecular mechanism for scavenging sialic acids in bacteria. <i>Journal of Biological Chemistry</i> , 2020, 295, 13724-13736.	1.6	26
56	The VC1777â€“VC1779 proteins are members of a sialic acid-specific subfamily of TRAP transporters (SiPQM) and constitute the sole route of sialic acid uptake in the human pathogen <i>Vibrio cholerae</i> . <i>Microbiology (United Kingdom)</i> , 2012, 158, 2158-2167.	0.7	25
57	Transport and catabolism of the sialic acids <i>N</i> -glycolylneuraminic acid and 3-keto-3-deoxy-glycero-galactononic acid by <i>Escherichia coli</i> K-12. <i>FEMS Microbiology Letters</i> , 2013, 347, 14-22.	0.7	25
58	Robust microorganisms for biofuel and chemical production from municipal solid waste. <i>Microbial Cell Factories</i> , 2020, 19, 68.	1.9	24
59	Antibiotic export: transporters involved in the final step of natural product production. <i>Microbiology (United Kingdom)</i> , 2019, 165, 805-818.	0.7	24
60	A Tale of Three Species: Adaptation of <i>Sodalis glossinidius</i> to Tsetse Biology, <i>Wigglesworthia</i> Metabolism, and Host Diet. <i>MBio</i> , 2019, 10, .	1.8	23
61	Acetylation of Surface Carbohydrates in Bacterial Pathogens Requires Coordinated Action of a Two-Domain Membrane-Bound Acyltransferase. <i>MBio</i> , 2020, 11, .	1.8	22
62	Sialic acid utilization by the soil bacterium <i>Corynebacterium glutamicum</i> . <i>FEMS Microbiology Letters</i> , 2012, 336, 131-138.	0.7	21
63	Probing linker design in citric acidâ€“ciprofloxacin conjugates. <i>Bioorganic and Medicinal Chemistry</i> , 2014, 22, 4499-4505.	1.4	21
64	A Salmochelin S4-Inspired Ciprofloxacin Trojan Horse Conjugate. <i>ACS Infectious Diseases</i> , 2020, 6, 2532-2541.	1.8	19
65	BuchneraBASE: a post-genomic resource for <i>Buchnera</i> sp. <i>APS. Bioinformatics</i> , 2006, 22, 641-642.	1.8	17
66	Part by Part: Synthetic Biology Parts Used in Solventogenic <i>Clostridia</i> . <i>ACS Synthetic Biology</i> , 2018, 7, 311-327.	1.9	17
67	The molecular basis of thioalcohol production in human body odour. <i>Scientific Reports</i> , 2020, 10, 12500.	1.6	16
68	Bioethanol from autoclaved municipal solid waste: Assessment of environmental and financial viability under policy contexts. <i>Applied Energy</i> , 2021, 298, 117118.	5.1	16
69	Novel growth characteristics and high rates of nitrate reduction of an <i>Escherichia coli</i> strain, LCB2048, that expresses only a periplasmic nitrate reductase. <i>FEMS Microbiology Letters</i> , 2000, 185, 51-57.	0.7	15
70	Reconstitution and optimisation of the biosynthesis of bacterial sugar pseudaminic acid (Pse5Ac7Ac) enables preparative enzymatic synthesis of CMP-Pse5Ac7Ac. <i>Scientific Reports</i> , 2021, 11, 4756.	1.6	14
71	MpaA is a murein-tripeptide-specific zinc carboxypeptidase that functions as part of a catabolic pathway for peptidoglycan-derived peptides in β^3 -proteobacteria. <i>Biochemical Journal</i> , 2012, 448, 329-341.	1.7	12
72	Multiple evolutionary origins reflect the importance of sialic acid transporters in the colonization potential of bacterial pathogens and commensals. <i>Microbial Genomics</i> , 2021, 7, .	1.0	12

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73	Biocatalytic Transfer of Pseudaminic Acid (Pse5Ac7Ac) Using Promiscuous Sialyltransferases in a Chemoenzymatic Approach to Pse5Ac7Ac-Containing Glycosides. <i>ACS Catalysis</i> , 2020, 10, 9986-9993.	5.5	10
74	Synthetic Approaches for Accessing Pseudaminic Acid (Pse) Bacterial Glycans. <i>ChemBioChem</i> , 2020, 21, 1397-1407.	1.3	10
75	Triggering Closure of a Sialic Acid TRAP Transporter Substrate Binding Protein through Binding of Natural or Artificial Substrates. <i>Journal of Molecular Biology</i> , 2021, 433, 166756.	2.0	10
76	On sialic acid transport and utilization by <i>Vibrio cholerae</i> . <i>Microbiology (United Kingdom)</i> , 2011, 157, 3253-3254.	0.7	10
77	Synthesis of the complete series of mono acetates of N-acetyl-<scp>d</scp>-neuraminic acid. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 529-535.	1.5	9
78	Evolutionary dynamics of membrane transporters and channels: enhancing function through fusion. <i>Current Opinion in Genetics and Development</i> , 2019, 58-59, 76-86.	1.5	9
79	Systems Analyses Reveal the Resilience of <i>Escherichia coli</i> Physiology during Accumulation and Export of the Nonnative Organic Acid Citramalate. <i>MSystems</i> , 2019, 4, .	1.7	9
80	Surface-Bound Antibiotic for the Detection of \hat{I}^2 -Lactamases. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 32599-32604.	4.0	7
81	Simulating the evolutionary trajectories of metabolic pathways for insect symbionts in the genus <i>Sodalis</i> . <i>Microbial Genomics</i> , 2020, 6, .	1.0	7
82	Enhanced functionalisation of major facilitator superfamily transporters via fusion of C-terminal protein domains is both extensive and varied in bacteria. <i>Microbiology (United Kingdom)</i> , 2019, 165, 419-424.	0.7	7
83	Probing Bacterial Uptake of Glycosylated Ciprofloxacin Conjugates. <i>ChemBioChem</i> , 2014, 15, 466-471.	1.3	6
84	MORF: An online tool for exploring microbial cell responses using multi-omics analysis. <i>Access Microbiology</i> , 2020, 2, .	0.2	6
85	Antibiotic-functionalized gold nanoparticles for the detection of active \hat{I}^2 -lactamases. <i>Nanoscale Advances</i> , 2022, 4, 573-581.	2.2	6
86	Diverse functions for acyltransferase-3 proteins in the modification of bacterial cell surfaces. <i>Microbiology (United Kingdom)</i> , 2022, 168, .	0.7	6
87	Multi-omic based production strain improvement (MOBpsi) for bio-manufacturing of toxic chemicals. <i>Metabolic Engineering</i> , 2022, 72, 133-149.	3.6	6
88	On the pull: periplasmic trapping of sugars before transport. <i>Molecular Microbiology</i> , 2017, 104, 883-888.	1.2	5
89	Massive over-representation of solute-binding proteins (SBPs) from the tripartite tricarboxylate transporter (TTT) family in the genome of the \hat{I}^2 -proteobacterium <i>Rhodoplanes</i> sp. Z2-YC6860. <i>Microbial Genomics</i> , 2018, 4, .	1.0	5
90	Reference-Grade Genome and Large Linear Plasmid of <i>Streptomyces rimosus</i> : Pushing the Limits of Nanopore Sequencing. <i>Microbiology Spectrum</i> , 2022, 10, e0243421.	1.2	5

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91	Improved furfural tolerance in <i>Escherichia coli</i> mediated by heterologous NADH-dependent benzyl alcohol dehydrogenases. <i>Biochemical Journal</i> , 2022, 479, 1045-1058.	1.7	5
92	ESCHERICHIA COLI ON THE WWW. <i>Letters in Applied Microbiology</i> , 1998, 27, 122-123.	1.0	4
93	Synthesis and biochemical evaluation of cephalosporin analogues equipped with chemical tethers. <i>RSC Advances</i> , 2020, 10, 36485-36494.	1.7	3
94	The structural basis for high-affinity uptake of lignin-derived aromatic compounds by proteobacterial TRAP transporters. <i>FEBS Journal</i> , 2022, 289, 436-456.	2.2	3
95	Removing repression: novel roles for solute transporters in regulating gene expression. <i>Trends in Microbiology</i> , 2001, 9, 58.	3.5	2
96	Synthetic biology approaches to actinomycete strain improvement. <i>FEMS Microbiology Letters</i> , 2021, 368, .	0.7	2
97	Multi-omics Study of <i>Planobispora rosea</i> , Producer of the Thiopeptide Antibiotic GE2270A. <i>MSystems</i> , 2021, 6, e0034121.	1.7	2
98	The <i>Salmonella enterica</i> serovar Typhimurium virulence factor STM3169 is a hexuronic acid binding protein component of a TRAP transporter. <i>Microbiology (United Kingdom)</i> , 2020, 166, 981-987.	0.7	2
99	<i>Helicobacter</i> takes the acid test. <i>Trends in Microbiology</i> , 2000, 8, 160-161.	3.5	1
100	New roles for nitrate reductases. <i>Trends in Microbiology</i> , 2000, 8, 15.	3.5	1
101	CBMNet: the "Crossing Biological Membranes" network in industrial biotechnology and bioenergy. <i>Biochemical Society Transactions</i> , 2018, 46, 871-875.	1.6	1
102	Microbial Musings " January 2021. <i>Microbiology (United Kingdom)</i> , 2021, 167, .	0.7	1
103	Microbial Musings " May 2021. <i>Microbiology (United Kingdom)</i> , 2021, 167, .	0.7	1
104	Understanding the Model and the Menace: a Postgenomic View of <i>Escherichia Coli</i> . , 0, , 21-48.		1
105	Waste not, want not: Nitrogen recycling by metabolic pathways shared between an animal and its symbiotic bacteria. <i>Biochemist</i> , 2013, 35, 20-24.	0.2	1
106	Microbial Musings " June 2020. <i>Microbiology (United Kingdom)</i> , 2020, 166, 498-500.	0.7	1
107	Microbial Musings " January 2020. <i>Microbiology (United Kingdom)</i> , 2020, 166, 1-3.	0.7	1
108	Microbial Musings " March 2020. <i>Microbiology (United Kingdom)</i> , 2020, 166, 227-229.	0.7	1

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109	Microbial Musings â€“ July 2020. Microbiology (United Kingdom), 2020, 166, 594-596.	0.7	1
110	Microbial Musings â€“ October 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	1
111	Membrane topology of the Mep/Amt family of ammonium transport proteins. Biochemical Society Transactions, 2000, 28, A94-A94.	1.6	0
112	Helicobacter pylori retakes the acid test. Trends in Microbiology, 2001, 9, 360.	3.5	0
113	Mopping up transcription factors. Trends in Microbiology, 2002, 10, 65-66.	3.5	0
114	Membrane protein topology: phospholipids call the shots. Trends in Microbiology, 2002, 10, 310-311.	3.5	0
115	Microbial Musings â€“ February 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	0
116	Microbial Musings â€“ March 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	0
117	Microbial Musings â€“ June 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	0
118	Microbial Musings â€“ July 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	0
119	Microbial Musings â€“ August 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	0
120	Microbial Musings â€“ September 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	0
121	Microbial Musings â€“ May 2020. Microbiology (United Kingdom), 2020, 166, 422-424.	0.7	0
122	Microbial Musings â€“ August 2020. Microbiology (United Kingdom), 2020, 166, 680-682.	0.7	0
123	Microbial Musings â€“ November 2020. Microbiology (United Kingdom), 2020, 166, 1004-1006.	0.7	0
124	Microbial Musings â€“ December 2020. Microbiology (United Kingdom), 2020, 166, 1107-1109.	0.7	0
125	Microbial Musings â€“ February 2020. Microbiology (United Kingdom), 2020, 166, 93-95.	0.7	0
126	Microbial musings â€“ April 2020. Microbiology (United Kingdom), 2020, 166, 332-334.	0.7	0

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127	Microbial Musings â€™ September 2020. Microbiology (United Kingdom), 2020, 166, 794-796.	0.7	0
128	Microbial Musings â€™ October 2020. Microbiology (United Kingdom), 2020, 166, 891-893.	0.7	0
129	Microbial Musings â€™ November 2021. Microbiology (United Kingdom), 2022, 167, .	0.7	0
130	Microbial Musings â€™ December 2021. Microbiology (United Kingdom), 2021, 167, .	0.7	0
131	Microbial Musings â€™ Spring 2022. Microbiology (United Kingdom), 2022, 168, .	0.7	0