

# Colin Hughes

## List of Publications by Year in descending order

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87  
papers

7,926  
citations

38742

50  
h-index

54911

84  
g-index

89  
all docs

89  
docs citations

89  
times ranked

4407  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal structure of the bacterial membrane protein TolC central to multidrug efflux and protein export. <i>Nature</i> , 2000, 405, 914-919.	27.8	1,013
2	Activation of <i>Escherichia coli</i> prohaemolysin to the mature toxin by acyl carrier protein-dependent fatty acylation. <i>Nature</i> , 1991, 351, 759-761.	27.8	346
3	Structure and Function of TolC: The Bacterial Exit Duct for Proteins and Drugs. <i>Annual Review of Biochemistry</i> , 2004, 73, 467-489.	11.1	318
4	The assembled structure of a complete tripartite bacterial multidrug efflux pump. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 7173-7178.	7.1	276
5	Swarming motility. <i>Current Opinion in Microbiology</i> , 1999, 2, 630-635.	5.1	272
6	Structure of the periplasmic component of a bacterial drug efflux pump. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 9994-9999.	7.1	243
7	Co-ordinate expression of virulence genes during swarm-cell differentiation and population migration of <i>Proteus mirabilis</i> . <i>Molecular Microbiology</i> , 1992, 6, 1583-1591.	2.5	200
8	RfaH and the ops element, components of a novel system controlling bacterial transcription elongation. <i>Molecular Microbiology</i> , 1997, 26, 845-851.	2.5	195
9	Interactions underlying assembly of the <i>Escherichia coli</i> AcrAB-TolC multidrug efflux system. <i>Molecular Microbiology</i> , 2004, 53, 697-706.	2.5	184
10	Substrate-specific binding of hook-associated proteins by FlgN and FliT, putative chaperones for flagellum assembly. <i>Molecular Microbiology</i> , 1999, 32, 569-580.	2.5	175
11	Acylation of <i>Escherichia coli</i> Hemolysin: A Unique Protein Lipidation Mechanism Underlying Toxin Function. <i>Microbiology and Molecular Biology Reviews</i> , 1998, 62, 309-333.	6.6	172
12	Flagellin polymerisation control by a cytosolic export chaperone1 Edited by I. B. Holland. <i>Journal of Molecular Biology</i> , 2001, 308, 221-229.	4.2	159
13	Transition to the open state of the TolC periplasmic tunnel entrance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 11103-11108.	7.1	145
14	The Role of Swarm Cell Differentiation and Multicellular Migration in the Uropathogenicity of <i>Proteus mirabilis</i> . <i>Journal of Infectious Diseases</i> , 1994, 169, 1155-1158.	4.0	140
15	Three's company: component structures bring a closer view of tripartite drug efflux pumps. <i>Current Opinion in Structural Biology</i> , 2004, 14, 741-747.	5.7	132
16	Hemolysin Production as a Virulence Marker in Symptomatic and Asymptomatic Urinary Tract Infections Caused by <i>Escherichia coli</i> . <i>Infection and Immunity</i> , 1983, 39, 546-551.	2.2	131
17	Docking of cytosolic chaperone-substrate complexes at the membrane ATPase during flagellar type III protein export. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 3945-3950.	7.1	128
18	A cell-surface polysaccharide that facilitates rapid population migration by differentiated swarm cells of <i>Proteus mirabilis</i> . <i>Molecular Microbiology</i> , 1995, 17, 1167-1175.	2.5	125

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19	A periplasmic coiled-coil interface underlying TolC recruitment and the assembly of bacterial drug efflux pumps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 4612-4617.	7.1	125
20	Cell differentiation of <i>Proteus mirabilis</i> is initiated by glutamine, a specific chemoattractant for swarming cells. <i>Molecular Microbiology</i> , 1993, 8, 53-60.	2.5	119
21	Substrate-triggered recruitment of the TolC channel-tunnel during type I export of hemolysin by <i>Escherichia coli</i> . <i>Journal of Molecular Biology</i> , 2001, 313, 501-510.	4.2	116
22	From flagellum assembly to virulence: the extended family of type III export chaperones. <i>Trends in Microbiology</i> , 2000, 8, 202-204.	7.7	107
23	Substrate complexes and domain organization of the <i>Salmonella</i> flagellar export chaperones FlgN and FliT. <i>Molecular Microbiology</i> , 2001, 39, 781-791.	2.5	106
24	Novel genes that upregulate the <i>Proteus mirabilis</i> flhDC master operon controlling flagellar biogenesis and swarming. <i>Molecular Microbiology</i> , 1998, 29, 741-751.	2.5	104
25	ATPase activity and ATP/ADP-induced conformational change in the soluble domain of the bacterial protein translocator HlyB. <i>Molecular Microbiology</i> , 1993, 8, 1163-1175.	2.5	100
26	Oligomerization and activation of the Flil ATPase central to bacterial flagellum assembly. <i>Molecular Microbiology</i> , 2003, 48, 1349-1355.	2.5	100
27	Structure and Operation of Bacterial Tripartite Pumps. <i>Annual Review of Microbiology</i> , 2013, 67, 221-242.	7.3	100
28	<i>Escherichia coli</i> HlyT protein, a transcriptional activator of haemolysin synthesis and secretion, is encoded by the rfaH (sfrB) locus required for expression of sex factor and lipopolysaccharide genes. <i>Molecular Microbiology</i> , 1992, 6, 1003-1012.	2.5	93
29	An escort mechanism for cycling of export chaperones during flagellum assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 17474-17479.	7.1	93
30	Protein exporter function and in vitro ATPase activity are correlated in ABC-domain mutants of HlyB. <i>Molecular Microbiology</i> , 1995, 16, 87-96.	2.5	84
31	An aspartate ring at the TolC tunnel entrance determines ion selectivity and presents a target for blocking by large cations. <i>Molecular Microbiology</i> , 2002, 44, 1131-1139.	2.5	83
32	Chunnel vision. <i>EMBO Reports</i> , 2000, 1, 313-318.	4.5	82
33	A chain mechanism for flagellum growth. <i>Nature</i> , 2013, 504, 287-290.	27.8	80
34	Building a flagellum outside the bacterial cell. <i>Trends in Microbiology</i> , 2014, 22, 566-572.	7.7	80
35	Rapid Turnover of FlhD and FlhC, the Flagellar Regulon Transcriptional Activator Proteins, during <i>Proteus</i> Swarming. <i>Journal of Bacteriology</i> , 2000, 182, 833-836.	2.2	75
36	Requirement for FlhA in flagella assembly and swarm-cell differentiation by <i>Proteus mirabilis</i> . <i>Molecular Microbiology</i> , 2006, 15, 761-769.	2.5	72

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37	Structures of sequential open states in a symmetrical opening transition of the TolC exit duct. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2112-2117.	7.1	72
38	Functions of the subunits in the FlhD 2 C 2 transcriptional master regulator of bacterial flagellum biogenesis and swarming 1 Edited by I. B. Holland. Journal of Molecular Biology, 2000, 303, 467-478.	4.2	69
39	Suppression of transcription polarity in the Escherichia coli haemolysin operon by a short upstream element shared by polysaccharide and DNA transfer determinants. Molecular Microbiology, 1996, 19, 705-713.	2.5	68
40	Expression of the E. coli hemolysin secretion gene hlyB involves transcript anti-termination within the hly operon. Nucleic Acids Research, 1988, 16, 4789-4800.	14.5	65
41	Swarming-coupled expression of the Proteus mirabilis hpmBA haemolysin operon a The GenBank accession number for the sequence determined in this work is AJ250100.. Microbiology (United Kingdom), 2005, 151, 1779-1788.	1.8	60
42	Increased distal gene transcription by the elongation factor RfaH, a specialized homologue of NusG. Molecular Microbiology, 1996, 22, 729-737.	2.5	63
43	Intrinsic Membrane Targeting of the Flagellar Export ATPase FliI: Interaction with Acidic Phospholipids and FliH. Journal of Molecular Biology, 2002, 318, 941-950.	4.2	62
44	Binding and transcriptional activation of non-flagellar genes by the Escherichia coli flagellar master regulator FlhD2C2. Microbiology (United Kingdom), 2005, 151, 1779-1788.	1.8	60
45	A Novel Membrane Protein Influencing Cell Shape and Multicellular Swarming of Proteus mirabilis. Journal of Bacteriology, 1999, 181, 2008-2016.	2.2	59
46	Interaction of the Atypical Prokaryotic Transcription Activator FlhD2C2 with Early Promoters of the Flagellar Gene Hierarchy. Journal of Molecular Biology, 2002, 321, 185-199.	4.2	57
47	Locking TolC Entrance Helices to Prevent Protein Translocation by the Bacterial Type I Export Apparatus. Journal of Molecular Biology, 2003, 327, 309-315.	4.2	57
48	Protein export and drug efflux through bacterial channel-tunnels. Current Opinion in Cell Biology, 2001, 13, 412-416.	5.4	56
49	The FliS chaperone selectively binds the disordered flagellin C-terminal D0 domain central to polymerisation. FEMS Microbiology Letters, 2003, 219, 219-224.	1.8	56
50	Directed evolution of a bacterial efflux pump: Adaptation of the E. coli TolC exit duct to the Pseudomonas MexAB translocase. FEBS Letters, 2006, 580, 5339-5343.	2.8	56
51	Interaction of Escherichia coli hemolysin with biological membranes. FEBS Journal, 2001, 268, 800-808.	0.2	54
52	Structure of the Ligand-blocked Periplasmic Entrance of the Bacterial Multidrug Efflux Protein TolC. Journal of Molecular Biology, 2004, 342, 697-702.	4.2	53
53	Comparison of the haemolysin secretion protein HlyB from Proteus vulgaris and Escherichia coli; site-directed mutagenesis causing impairment of export function. Molecular Genetics and Genomics, 1988, 213, 551-555.	2.4	52
54	Membrane Interaction of Escherichia coli Hemolysin: Flotation and Insertion-Dependent Labeling by Phospholipid Vesicles. Journal of Bacteriology, 2001, 183, 5364-5370.	2.2	50

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55	Pore formation in artificial membranes by the secreted hemolysins of <i>Proteus vulgaris</i> and <i>Morganella morganii</i> . <i>FEBS Journal</i> , 1994, 220, 339-347.	0.2	49
56	Bacterial signal peptide-independent protein export: HlyB-directed secretion of hemolysin. <i>Seminars in Cell Biology</i> , 1993, 4, 7-15.	3.4	46
57	Plasmid Carriage and the Serum Sensitivity of Enterobacteria. <i>Infection and Immunity</i> , 1978, 22, 10-17.	2.2	46
58	Identification of the promoters directing in vivo expression of hemolysin genes in <i>Proteus vulgaris</i> and <i>Escherichia coli</i> . <i>Molecular Genetics and Genomics</i> , 1988, 213, 99-104.	2.4	45
59	<i>E.coli</i> hemolysin interactions with prokaryotic and eukaryotic cell membranes. <i>BioEssays</i> , 1992, 14, 519-525.	2.5	44
60	A motile but non-swarming mutant of <i>Proteus mirabilis</i> lacks FlgN, a facilitator of flagella filament assembly. <i>Molecular Microbiology</i> , 1997, 25, 597-604.	2.5	41
61	Structure of the periplasmic adaptor protein from a major facilitator superfamily (MFS) multidrug efflux pump. <i>FEBS Letters</i> , 2014, 588, 3147-3153.	2.8	40
62	The Structure of the Colony Migration Factor from Pathogenic <i>Proteus mirabilis</i> . <i>Journal of Biological Chemistry</i> , 1999, 274, 22993-22998.	3.4	35
63	Independent interaction of the acyltransferase HlyC with two maturation domains of the <i>Escherichia coli</i> toxin HlyA. <i>Molecular Microbiology</i> , 1996, 20, 813-822.	2.5	33
64	Channel-tunnels. <i>Current Opinion in Structural Biology</i> , 2001, 11, 403-407.	5.7	33
65	Structure of a bacterial toxin-activating acyltransferase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E3058-66.	7.1	33
66	<i>Salmonella typhimurium</i> flhE, a conserved flagellar regulon gene required for swarming. <i>Microbiology (United Kingdom)</i> , 2007, 153, 541-547.	1.8	33
67	Sorting of Early and Late Flagellar Subunits After Docking at the Membrane ATPase of the Type III Export Pathway. <i>Journal of Molecular Biology</i> , 2007, 374, 877-882.	4.2	29
68	Selective binding of virulence type III export chaperones by FliJ escort orthologues Invl and YscO. <i>FEMS Microbiology Letters</i> , 2009, 293, 292-297.	1.8	29
69	Expression and regulation of the plasmid-encoded hemolysin determinant of <i>Escherichia coli</i> . <i>Molecular Genetics and Genomics</i> , 1984, 197, 196-203.	2.4	28
70	Rapid screening for plasmid DNA. <i>Molecular Genetics and Genomics</i> , 1977, 151, 175-179.	2.4	26
71	A swarming-defective mutant of <i>Proteus mirabilis</i> lacking a putative cation-transporting membrane P-type ATPase. <i>Microbiology (United Kingdom)</i> , 1998, 144, 1957-1961.	1.8	26
72	Activation of <i>Escherichia coli</i> prohemolysin to the membrane-targeted toxin by HlyC-directed ACP-dependent fatty acylation. <i>FEMS Microbiology Letters</i> , 1992, 105, 37-43.	1.8	24

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73	Structure of an atypical periplasmic adaptor from a multidrug efflux pump of the spirochete <i>Borrelia burgdorferi</i> . FEBS Letters, 2013, 587, 2984-2988.	2.8	21
74	Two major groups of colicin factors: Their molecular weights. Molecular Genetics and Genomics, 1978, 159, 219-221.	2.4	19
75	An ordered reaction mechanism for bacterial toxin acylation by the specialized acyltransferase HlyC: formation of a ternary complex with acylACP and protoxin substrates. Molecular Microbiology, 1999, 34, 887-901.	2.5	19
76	Hemolytic escherichia coli strains in the human fecal flora as potential urinary pathogens. Zentralblatt Fur Bakteriologie, Mikrobiologie Und Hygiene 1 Abt Originale A, Medizinische Mikrobiologie, Infektionskrankheiten Und Parasitologie, 1983, 254, 370-378.	0.2	14
77	Chromosomal deletions and rearrangements cause coordinate loss of haemolysis, fimbriation and serum resistance in a uropathogenic strain of Escherichia coli. Microbial Pathogenesis, 1987, 2, 227-230.	2.9	14
78	Building a flagellum in biological outer space. Microbial Cell, 2014, 1, 64-66.	3.2	14
79	Swarming Migration by Proteus and Related Bacteria. , 0, , 379-401.		9
80	Recognition of discrete export signals in early flagellar subunits during bacterial type III secretion. ELife, 2022, 11, .	6.0	8
81	The HlyB/HlyD-dependent secretion of toxins by Gram-negative bacteria. FEMS Microbiology Letters, 1992, 105, 44-53.	1.8	7
82	Nalidixic acid as a selective agent for the isolation of enterobacteria from river water. The Journal of Hygiene, 1976, 77, 23-30.	0.9	3
83	Hemolysin. , 2002, , 361-378.		3
84	Chapter 20 Secretion of hemolysin and other proteins out of the Gram-negative bacterial cell. New Comprehensive Biochemistry, 1994, 27, 425-446.	0.1	2
85	The Type I Export Mechanism. , 0, , 71-79.		2
86	ATPase activity and ATP/ADP-induced conformational change in the bacterial toxin exporter hemolysin B. Biochemical Society Transactions, 1993, 21, 347S-347S.	3.4	1
87	Loss of secreted hemolysin activity in the mutant strain Hsb. 1 is due to a lesion in a plasmid copy number locus. FEMS Microbiology Letters, 1991, 83, 55-58.	1.8	1