Colin Kleanthous

List of Publications by Year
in descending order

98 papers	5,658 citations	71061 41 h-index	88593 70 g-index
124 all docs	124 docs citations	124 times ranked	4583 citing authors

#	Article	IF	Citations
1	Colicin Biology. Microbiology and Molecular Biology Reviews, 2007, 71, 158-229.	2.9	902
2	High-resolution mass spectrometry of small molecules bound to membrane proteins. Nature Methods, 2016, 13, 333-336.	9.0	205
3	Supramolecular assemblies underpin turnover of outer membrane proteins in bacteria. Nature, 2015, 523, 333-336.	13.7	170
4	Structural and mechanistic basis of immunity toward endonuclease colicins. Nature Structural Biology, 1999, 6, 243-252.	9.7	156
5	Protein-Protein Interactions in Colicin E9 DNase-Immunity Protein Complexes. 1. Diffusion-Controlled Association and Femtomolar Binding for the Cognate Complex. Biochemistry, 1995, 34, 13743-13750.	1.2	149
6	Specificity in protein-protein interactions: the structural basis for dual recognition in endonuclease colicin-immunity protein complexes. Journal of Molecular Biology, 2000, 301, 1163-1178.	2.0	141
7	Swimming against the tide: progress and challenges in our understanding of colicin translocation. Nature Reviews Microbiology, 2010, 8, 843-848.	13.6	131
8	The structural and energetic basis for high selectivity in a high-affinity protein-protein interaction. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10080-10085.	3.3	112
9	Intrinsically Disordered Protein Threads Through the Bacterial Outer-Membrane Porin OmpF. Science, 2013, 340, 1570-1574.	6.0	109
10	Immunity proteins: enzyme inhibitors that avoid the active site. Trends in Biochemical Sciences, 2001, 26, 624-631.	3.7	100
11	Mechanism and cleavage specificity of the H-N-H endonuclease colicin E9 1 1Edited by J. Karn. Journal of Molecular Biology, 2001, 314, 735-749.	2.0	96
12	Molecular Mimicry Enables Competitive Recruitment by a Natively Disordered Protein. Journal of the American Chemical Society, 2007, 129, 4800-4807.	6.6	96
13	Protein-Protein Interactions in Colicin E9 DNase-Immunity Protein Complexes. 2. Cognate and Noncognate Interactions That Span the Millilmolar to Femptomolar Affinity Range. Biochemistry, 1995, 34, 13751-13759.	1.2	93
14	Immunity proteins and their specificity for endonuclease colicins: telling right from wrong in protein-protein recognition. Molecular Microbiology, 1998, 28, 227-233.	1.2	88
15	Cell entry mechanism of enzymatic bacterial colicins: Porin recruitment and the thermodynamics of receptor binding. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13849-13854.	3.3	87
16	Directed epitope delivery across the <i>Escherichia coli</i> outer membrane through the porin OmpF. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21412-21417.	3.3	84
17	Allosteric Î²-propeller signalling in TolB and its manipulation by translocating colicins. EMBO Journal, 2009, 28, 2846-2857.	3.5	81
18	The therapeutic potential of bacteriocins as protein antibiotics. Emerging Topics in Life Sciences, 2017, 1, 65-74.	1.1	80

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19	Exploitation of an iron transporter for bacterial protein antibiotic import. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12051-12056.	3.3	76
20	Following evolutionary paths to protein-protein interactions with high affinity and selectivity. Nature Structural and Molecular Biology, 2009, 16, 1049-1055.	3.6	75
21	Specificity in Proteinâ^'Protein Recognition:Â Conserved Im9 Residues Are the Major Determinants of Stability in the Colicin E9 DNaseâ^'Im9 Complexâ€. Biochemistry, 1998, 37, 476-485.	1.2	72
22	Homing in on the Role of Transition Metals in the HNH Motif of Colicin Endonucleases. Journal of Biological Chemistry, 1999, 274, 27153-27160.	1.6	70
23	Identification of Putative Active-site Residues in the DNase Domain of Colicin E9 by Random Mutagenesis. Journal of Molecular Biology, 1996, 260, 731-742.	2.0	69
24	Nuclease colicins and their immunity proteins. Quarterly Reviews of Biophysics, 2012, 45, 57-103.	2.4	69
25	Competitive recruitment of the periplasmic translocation portal TolB by a natively disordered domain of colicin E9. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12353-12358.	3.3	68
26	Structures of Teneurin adhesion receptors reveal an ancient fold for cell-cell interaction. Nature Communications, 2018, 9, 1079.	5.8	68
27	Highly Discriminating Proteinâ€"Protein Interaction Specificities in the Context of a Conserved Binding Energy Hotspot. Journal of Molecular Biology, 2004, 337, 743-759.	2.0	67
28	Enzymological characterization of the nuclease domain from the bacterial toxin colicin E9 from Escherichia coli. Biochemical Journal, 1998, 334, 387-392.	1.7	61
29	Mutagenic scan of the H-N-H motif of colicin E9: implications for the mechanistic enzymology of colicins, homing enzymes and apoptotic endonucleases. Nucleic Acids Research, 2002, 30, 3225-3234.	6.5	60
30	The multifarious roles of Tol-Pal in Gram-negative bacteria. FEMS Microbiology Reviews, 2020, 44, 490-506.	3.9	60
31	The Role of Electrostatics in Colicin Nuclease Domain Translocation into Bacterial Cells. Journal of Biological Chemistry, 2007, 282, 31389-31397.	1.6	59
32	Structure-based Analysis of the Metal-dependent Mechanism of H-N-H Endonucleases. Journal of Biological Chemistry, 2004, 279, 34763-34769.	1.6	58
33	In vivo and in vitro characterization of overproduced colicin E9 immunity protein. FEBS Journal, 1992, 207, 687-695.	0.2	57
34	Dual Recognition and the Role of Specificity-Determining Residues in Colicin E9 DNaseâ^'Immunity Protein Interactionsâ€. Biochemistry, 1998, 37, 11771-11779.	1.2	54
35	Structure of the Ultra-High-Affinity Colicin E2 DNaseâ€"Im2 Complex. Journal of Molecular Biology, 2012, 417, 79-94.	2.0	54
36	Phase separation in the outer membrane of <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	53

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37	The cytotoxic domain of colicin E9 is a channel-forming endonuclease. Nature Structural Biology, 2002, 9, 476-484.	9.7	52
38	Diversity and distribution of nuclease bacteriocins in bacterial genomes revealed using Hidden Markov Models. PLoS Computational Biology, 2017, 13, e1005652.	1.5	52
39	The lipoprotein Pal stabilises the bacterial outer membrane during constriction by a mobilisation-and-capture mechanism. Nature Communications, 2020, 11, 1305.	5.8	50
40	Ultrahigh specificity in a network of computationally designed protein-interaction pairs. Nature Communications, 2018, 9, 5286.	5.8	49
41	How nanoscale protein interactions determine the mesoscale dynamic organisation of bacterial outer membrane proteins. Nature Communications, 2018, 9, 2846.	5.8	49
42	Native Desorption Electrospray Ionization Liberates Soluble and Membrane Protein Complexes from Surfaces. Angewandte Chemie - International Edition, 2017, 56, 14463-14468.	7.2	46
43	Proteinâ€“protein interactions and the spatiotemporal dynamics of bacterial outer membrane proteins. Current Opinion in Structural Biology, 2015, 35, 109-115.	2.6	45
44	Thermodynamic Consequences of Bipartite Immunity Protein Binding to the Ribosomal Ribonuclease Colicin E3â€. Biochemistry, 2003, 42, 4161-4171.	1.2	44
45	Structural basis for 16S ribosomal RNA cleavage by the cytotoxic domain of colicin E3. Nature Structural and Molecular Biology, 2010, 17, 1241-1246.	3.6	44
46	Genomic Profiling Reveals Distinct Routes To Complement Resistance in Klebsiella pneumoniae. Infection and Immunity, 2020, 88, .	1.0	44
47	Identification of residues in the putative TolA box which are essential for the toxicity of the endonuclease toxin colicin E9. Microbiology (United Kingdom), 1997, 143, 2931-2938.	0.7	43
48	Discovery, characterization and <i>inÂvivo</i> activity of pyocin SD2, a protein antibiotic from <i>Pseudomonas aeruginosa</i>. Biochemical Journal, 2016, 473, 2345-2358.	1.7	42
49	Pyocin S5 Import into Pseudomonas aeruginosa Reveals a Generic Mode of Bacteriocin Transport. MBio, 2020, 11, .	1.8	42
50	Experimental and Computational Analyses of the Energetic Basis for Dual Recognition of Immunity Proteins by Colicin Endonucleases. Journal of Molecular Biology, 2008, 379, 745-759.	2.0	41
51	Transcriptional Profiling of Colicin-Induced Cell Death of Escherichia coli MG1655 Identifies Potential Mechanisms by Which Bacteriocins Promote Bacterial Diversity. Journal of Bacteriology, 2004, 186, 866-869.	1.0	40
52	Energy-dependent Immunity Protein Release during tol-dependent Nuclease Colicin Translocation. Journal of Biological Chemistry, 2009, 284, 18932-18941.	1.6	39
53	Lipid binding attenuates channel closure of the outer membrane protein OmpF. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6691-6696.	3.3	39
54	Protein-Protein Interaction Specificity of Im9 for the Endonuclease Toxin Colicin E9 Defined by Homologue-scanning Mutagenesis. Journal of Biological Chemistry, 1997, 272, 22253-22258.	1.6	38

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55	Identification of the catalytic motif of the microbial ribosome inactivating cytotoxin colicin E3. Protein Science, 2004, 13, 1603-1611.	3.1	37
56	Calorimetric Dissection of Colicin DNaseâ˘'Immunity Protein Complex Specificity. Biochemistry, 2006, 45, 3243-3254.	1.2	36
57	A 76-residue polypeptide of colicin E9 confers receptor specificity and inhibits the growth of vitamin B12-dependent Escherichia coli 113/3 cells. Molecular Microbiology, 2000, 38, 639-649.	1.2	35
58	Structure and Function of the Escherichia coli Tol-Pal Stator Protein TolR. Journal of Biological Chemistry, 2015, 290, 26675-26687.	1.6	35
59	TolA Modulates the Oligomeric Status of YbgF in the Bacterial Periplasm. Journal of Molecular Biology, 2010, 403, 270-285.	2.0	34
60	Peptidoglycan maturation controls outer membrane protein assembly. Nature, 2022, 606, 953-959.	13.7	34
61	Carbene Footprinting Reveals Binding Interfaces of a Multimeric Membraneâ€Spanning Protein. Angewandte Chemie - International Edition, 2017, 56, 14873-14877.	7.2	33
62	Intermembrane crosstalk drives inner-membrane protein organization in Escherichia coli. Nature Communications, 2018, 9, 1082.	5.8	32
63	The bacterial cell envelope. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20150019.	1.8	30
64	Flexibility in the Receptor-Binding Domain of the Enzymatic Colicin E9 Is Required for Toxicity against Escherichia coli Cells. Journal of Bacteriology, 2004, 186, 4520-4527.	1.0	29
65	The Kinetic Basis for Dual Recognition in Colicin Endonucleaseâ€"Immunity Protein Complexes. Journal of Molecular Biology, 2005, 352, 656-671.	2.0	29
66	Destabilization of the Colicin E9 Endonuclease Domain by Interaction with Negatively Charged Phospholipids. Journal of Biological Chemistry, 2004, 279, 22145-22151.	1.6	26
67	Rapid Detection of Colicin E9-Induced DNA Damage Using Escherichia coli Cells Carrying SOS Promoter- lux Fusions. Journal of Bacteriology, 2005, 187, 4900-4907.	1.0	26
68	A Force-Activated Trip Switch Triggers Rapid Dissociation of a Colicin from Its Immunity Protein. PLoS Biology, 2013, 11, e1001489.	2.6	26
69	The anti-sigma factor RsrA responds to oxidative stress by reburying its hydrophobic core. Nature Communications, 2016, 7, 12194.	5.8	26
70	Structures of the Ultra-High-Affinity Proteinâ€"Protein Complexes of Pyocins S2 and AP41 and Their Cognate Immunity Proteins from Pseudomonas aeruginosa. Journal of Molecular Biology, 2015, 427, 2852-2866.	2.0	25
71	O-Antigen-Dependent Colicin Insensitivity of Uropathogenic Escherichia coli. Journal of Bacteriology, 2019, 201, .	1.0	24
72	Consequences of Inducing Intrinsic Disorder in a High-Affinity Proteinâ€"Protein Interaction. Journal of the American Chemical Society, 2015, 137, 5252-5255.	6.6	23

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73	Kinetic Basis for the Competitive Recruitment of TolB by the Intrinsically Disordered Translocation Domain of Colicin E9. Journal of Molecular Biology, 2012, 418, 269-280.	2.0	22
74	Colicin translocation across the <i>Escherichia coli</i> outer membrane. Biochemical Society Transactions, 2012, 40, 1475-1479.	1.6	20
75	Orientation of the OmpF Porin in Planar Lipid Bilayers. ChemBioChem, 2017, 18, 554-562.	1.3	20
76	Tools and Approaches for Dissecting Protein Bacteriocin Import in Gram-Negative Bacteria. Frontiers in Microbiology, 2019, 10, 646.	1.5	20
77	Pyocin efficacy in a murine model of <i>Pseudomonas aeruginosa</i> sepsis. Journal of Antimicrobial Chemotherapy, 2021, 76, 2317-2324.	1.3	19
78	Native Desorption Electrospray Ionization Liberates Soluble and Membrane Protein Complexes from Surfaces. Angewandte Chemie, 2017, 129, 14655-14660.	1.6	17
79	Targeted Killing of Pseudomonas aeruginosa by Pyocin G Occurs via the Hemin Transporter Hur. Journal of Molecular Biology, 2020, 432, 3869-3880.	2.0	17
80	OmpF enhances the ability of BtuB to protect susceptibleEscherichia colicells from colicin E9 cytotoxicity. FEBS Letters, 2003, 545, 127-132.	1.3	16
81	Bifurcated binding of the OmpF receptor underpins import of the bacteriocin colicin N into Escherichia coli. Journal of Biological Chemistry, 2020, 295, 9147-9156.	1.6	16
82	Structural and biophysical analysis of nuclease protein antibiotics. Biochemical Journal, 2016, 473, 2799-2812.	1.7	12
83	Directional Porin Binding of Intrinsically Disordered Protein Sequences Promotes Colicin Epitope Display in the Bacterial Periplasm. Biochemistry, 2018, 57, 4374-4381.	1.2	12
84	Carbene Footprinting Reveals Binding Interfaces of a Multimeric Membraneâ€Spanning Protein. Angewandte Chemie, 2017, 129, 15069-15073.	1.6	11
85	Toxin import through the antibiotic efflux channel TolC. Nature Communications, 2021, 12, 4625.	5.8	11
86	Porin threading drives receptor disengagement and establishes active colicin transport through <i>Escherichia</i> <i>coli</i> OmpF. EMBO Journal, 2021, 40, e108610.	3.5	11
87	Translocator hunt comes full Cirâ€Col. Molecular Microbiology, 2010, 75, 529-533.	1.2	8
88	Transmembrane Epitope Delivery by Passive Protein Threading through the Pores of the OmpF Porin Trimer. Journal of the American Chemical Society, 2020, 142, 12157-12166.	6.6	8
89	The CcmCâ€“CcmE interaction during cytochrome c maturation by System I is driven by proteinâ€“protein and not proteinâ€“heme contacts. Journal of Biological Chemistry, 2018, 293, 16778-16790.	1.6	7
90	Colicin-Mediated Transport of DNA through the Iron Transporter FepA. MBio, 2021, 12, e0178721.	1.8	7

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91	Force-Generation by the Trans-Envelope Tol-Pal System. Frontiers in Microbiology, 2022, 13, 852176.	1.5	7
92	Bacterial Competition Systems Share a Domain Required for Inner Membrane Transport of the Bacteriocin Pyocin G from Pseudomonas aeruginosa. MBio, 2022, 13, e0339621.	1.8	6
93	Immunity protein release from a cellâ€bound nuclease colicin complex requires global conformational rearrangement. MicrobiologyOpen, 2013, 2, 853-861.	1.2	5
94	The quantitative basis for the redistribution of immobile bacterial lipoproteins to division septa. PLoS Computational Biology, 2021, 17, e1009756.	1.5	3
95	Compartmentalizing acid stress in bacteria. Nature Chemical Biology, 2018, 14, 993-994.	3.9	1
96	InnenrÃ¼cktitelbild: Native Desorption Electrospray Ionization Liberates Soluble and Membrane Protein Complexes from Surfaces (Angew. Chem. 46/2017). Angewandte Chemie, 2017, 129, 14965-14965.	1.6	0
97	Exploring emerging topics. Emerging Topics in Life Sciences, 2017, 1, e1-e2.	1.1	0
98	Professor William V. Shaw. Biochemist, 2018, 40, 50.	0.2	0