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	Force-Generation by the Trans-Envelope Tol-Pal System. Frontiers in Microbiology, 2022, 13, 852176.	1.5	7
2	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
3	Peptidoglycan maturation controls outer membrane protein assembly. Nature, 2022, 606, 953-959.	13.7	34
4	Pyocin efficacy in a murine model of <i>Pseudomonas aeruginosa</i> sepsis. Journal of Antimicrobial Chemotherapy, 2021, 76, 2317-2324.	1.3	19
5	Toxin import through the antibiotic efflux channel TolC. Nature Communications, 2021, 12, 4625.	5.8	11
6	Colicin-Mediated Transport of DNA through the Iron Transporter FepA. MBio, 2021, 12, e0178721.	1.8	7
7	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
8	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
9	The quantitative basis for the redistribution of immobile bacterial lipoproteins to division septa. PLoS Computational Biology, 2021, 17, e1009756.	1.5	3
10	Pyocin S5 Import into Pseudomonas aeruginosa Reveals a Generic Mode of Bacteriocin Transport. MBio, 2020, 11, .	1.8	42
11	The multifarious roles of Tol-Pal in Gram-negative bacteria. FEMS Microbiology Reviews, 2020, 44, 490-506.	3.9	60
12	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
13	Genomic Profiling Reveals Distinct Routes To Complement Resistance in Klebsiella pneumoniae. Infection and Immunity, 2020, 88, .	1.0	44
14	The lipoprotein Pal stabilises the bacterial outer membrane during constriction by a mobilisation-and-capture mechanism. Nature Communications, 2020, 11, 1305.	5.8	50
15	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
16	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
17	Tools and Approaches for Dissecting Protein Bacteriocin Import in Gram-Negative Bacteria. Frontiers in Microbiology, 2019, 10, 646.	1.5	20
18	O-Antigen-Dependent Colicin Insensitivity of Uropathogenic Escherichia coli. Journal of Bacteriology, 2019, 201, .	1.0	24

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19	Intermembrane crosstalk drives inner-membrane protein organization in Escherichia coli. Nature Communications, 2018, 9, 1082.	5.8	32
20	Structures of Teneurin adhesion receptors reveal an ancient fold for cell-cell interaction. Nature Communications, 2018, 9, 1079.	5.8	68
21	Ultrahigh specificity in a network of computationally designed protein-interaction pairs. Nature Communications, 2018, 9, 5286.	5.8	49
22	Compartmentalizing acid stress in bacteria. Nature Chemical Biology, 2018, 14, 993-994.	3.9	1
23	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
24	Directional Porin Binding of Intrinsically Disordered Protein Sequences Promotes Colicin Epitope Display in the Bacterial Periplasm. Biochemistry, 2018, 57, 4374-4381.	1.2	12
25	How nanoscale protein interactions determine the mesoscale dynamic organisation of bacterial outer membrane proteins. Nature Communications, 2018, 9, 2846.	5.8	49
26	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
27	Professor William V. Shaw. Biochemist, 2018, 40, 50.	0.2	0
28	Orientation of the OmpF Porin in Planar Lipid Bilayers. ChemBioChem, 2017, 18, 554-562.	1.3	20
29	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
30	Carbene Footprinting Reveals Binding Interfaces of a Multimeric Membraneâ€Spanning Protein. Angewandte Chemie, 2017, 129, 15069-15073.	1.6	11
31	Carbene Footprinting Reveals Binding Interfaces of a Multimeric Membraneâ€Spanning Protein. Angewandte Chemie - International Edition, 2017, 56, 14873-14877.	7.2	33
32	Native Desorption Electrospray Ionization Liberates Soluble and Membrane Protein Complexes from Surfaces. Angewandte Chemie, 2017, 129, 14655-14660.	1.6	17
33	Native Desorption Electrospray Ionization Liberates Soluble and Membrane Protein Complexes from Surfaces. Angewandte Chemie - International Edition, 2017, 56, 14463-14468.	7.2	46
34	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
35	The therapeutic potential of bacteriocins as protein antibiotics. Emerging Topics in Life Sciences, 2017, 1, 65-74.	1.1	80
36	Diversity and distribution of nuclease bacteriocins in bacterial genomes revealed using Hidden Markov Models. PLoS Computational Biology, 2017, 13, e1005652.	1.5	52

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37	Exploring emerging topics. Emerging Topics in Life Sciences, 2017, 1, e1-e2.	1.1	0
38	The anti-sigma factor RsrA responds to oxidative stress by reburying its hydrophobic core. Nature Communications, 2016, 7, 12194.	5.8	26
39	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
40	Structural and biophysical analysis of nuclease protein antibiotics. Biochemical Journal, 2016, 473, 2799-2812.	1.7	12
41	High-resolution mass spectrometry of small molecules bound to membrane proteins. Nature Methods, 2016, 13, 333-336.	9.0	205
42	Supramolecular assemblies underpin turnover of outer membrane proteins in bacteria. Nature, 2015, 523, 333-336.	13.7	170
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	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
45	The bacterial cell envelope. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20150019.	1.8	30
46	Structure and Function of the Escherichia coli Tol-Pal Stator Protein TolR. Journal of Biological Chemistry, 2015, 290, 26675-26687.	1.6	35
47	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
48	Immunity protein release from a cellâ€bound nuclease colicin complex requires global conformational rearrangement. MicrobiologyOpen, 2013, 2, 853-861.	1.2	5
49	A Force-Activated Trip Switch Triggers Rapid Dissociation of a Colicin from Its Immunity Protein. PLoS Biology, 2013, 11, e1001489.	2.6	26
50	Intrinsically Disordered Protein Threads Through the Bacterial Outer-Membrane Porin OmpF. Science, 2013, 340, 1570-1574.	6.0	109
51	Colicin translocation across the <i>Escherichia coli</i> outer membrane. Biochemical Society Transactions, 2012, 40, 1475-1479.	1.6	20
52	Structure of the Ultra-High-Affinity Colicin E2 DNaseâ€“Im2 Complex. Journal of Molecular Biology, 2012, 417, 79-94.	2.0	54
53	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
54	Nuclease colicins and their immunity proteins. Quarterly Reviews of Biophysics, 2012, 45, 57-103.	2.4	69

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55	Translocator hunt comes full Cirâ€Col. Molecular Microbiology, 2010, 75, 529-533.	1.2	8
56	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
57	Swimming against the tide: progress and challenges in our understanding of colicin translocation. Nature Reviews Microbiology, 2010, 8, 843-848.	13.6	131
58	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
59	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
60	TolA Modulates the Oligomeric Status of YbgF in the Bacterial Periplasm. Journal of Molecular Biology, 2010, 403, 270-285.	2.0	34
61	Energy-dependent Immunity Protein Release during tol-dependent Nuclease Colicin Translocation. Journal of Biological Chemistry, 2009, 284, 18932-18941.	1.6	39
62	Allosteric Î²-propeller signalling in TolB and its manipulation by translocating colicins. EMBO Journal, 2009, 28, 2846-2857.	3.5	81
63	Following evolutionary paths to protein-protein interactions with high affinity and selectivity. Nature Structural and Molecular Biology, 2009, 16, 1049-1055.	3.6	75
64	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
65	The Role of Electrostatics in Colicin Nuclease Domain Translocation into Bacterial Cells. Journal of Biological Chemistry, 2007, 282, 31389-31397.	1.6	59
66	Colicin Biology. Microbiology and Molecular Biology Reviews, 2007, 71, 158-229.	2.9	902
67	Molecular Mimicry Enables Competitive Recruitment by a Natively Disordered Protein. Journal of the American Chemical Society, 2007, 129, 4800-4807.	6.6	96
68	Calorimetric Dissection of Colicin DNaseâˆ'Immunity Protein Complex Specificity. Biochemistry, 2006, 45, 3243-3254.	1.2	36
69	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
70	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
71	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
72	The Kinetic Basis for Dual Recognition in Colicin Endonucleaseâ€"Immunity Protein Complexes. Journal of Molecular Biology, 2005, 352, 656-671.	2.0	29

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73	Structure-based Analysis of the Metal-dependent Mechanism of H-N-H Endonucleases. Journal of Biological Chemistry, 2004, 279, 34763-34769.	1.6	58
74	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
75	Destabilization of the Colicin E9 Endonuclease Domain by Interaction with Negatively Charged Phospholipids. Journal of Biological Chemistry, 2004, 279, 22145-22151.	1.6	26
76	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
77	Identification of the catalytic motif of the microbial ribosome inactivating cytotoxin colicin E3. Protein Science, 2004, 13, 1603-1611.	3.1	37
78	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
79	OmpF enhances the ability of BtuB to protect susceptibleEscherichia colicells from colicin E9 cytotoxicity. FEBS Letters, 2003, 545, 127-132.	1.3	16
80	Thermodynamic Consequences of Bipartite Immunity Protein Binding to the Ribosomal Ribonuclease Colicin E3â€. Biochemistry, 2003, 42, 4161-4171.	1.2	44
81	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
82	The cytotoxic domain of colicin E9 is a channel-forming endonuclease. Nature Structural Biology, 2002, 9, 476-484.	9.7	52
83	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
84	Immunity proteins: enzyme inhibitors that avoid the active site. Trends in Biochemical Sciences, 2001, 26, 624-631.	3.7	100
85	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
86	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
87	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
88	Structural and mechanistic basis of immunity toward endonuclease colicins. Nature Structural Biology, 1999, 6, 243-252.	9.7	156
89	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
90	Specificity in Proteinâˆ'Protein Recognition:Â Conserved Im9 Residues Are the Major Determinants of Stability in the Colicin E9 DNaseâˆ'Im9 Complexâ€. Biochemistry, 1998, 37, 476-485.	1.2	72

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91	Dual Recognition and the Role of Specificity-Determining Residues in Colicin E9 DNaseâˆ'Immunity Protein Interactionsâ€. Biochemistry, 1998, 37, 11771-11779.	1.2	54
92	Enzymological characterization of the nuclease domain from the bacterial toxin colicin E9 from Escherichia coli. Biochemical Journal, 1998, 334, 387-392.	1.7	61
93	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
94	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
95	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
96	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
97	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
98	In vivo and in vitro characterization of overproduced colicin E9 immunity protein. FEBS Journal, 1992, 207, 687-695.	0.2	57