Christopher S Hayes

List of Publications by Year
in descending order

83 papers	5,009 citations	81900 39 h-index	98798 67 g-index
85 all docs	85 docs citations	85 times ranked	3905 citing authors

#	Article	IF	Citations
1	Rhs proteins from diverse bacteria mediate intercellular competition. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7032-7037.	7.1	381
2	A widespread family of polymorphic contact-dependent toxin delivery systems in bacteria. Nature, 2010, 468, 439-442.	27.8	292
3	Bacterial Contact-Dependent Delivery Systems. Annual Review of Genetics, 2010, 44, 71-90.	7.6	238
4	The Role of Secretion Systems and Small Molecules in Soft-Rot <i>Enterobacteriaceae</i> Pathogenicity. Annual Review of Phytopathology, 2012, 50, 425-449.	7.8	217
5	Cleavage of the A Site mRNA Codon during Ribosome Pausing Provides a Mechanism for Translational Quality Control. Molecular Cell, 2003, 12, 903-911.	9.7	203
6	Genetically distinct pathways guide effector export through the type <scp>VI</scp> secretion system. Molecular Microbiology, 2014, 92, 529-542.	2.5	192
7	Identification of Functional Toxin/Immunity Genes Linked to Contact-Dependent Growth Inhibition (CDI) and Rearrangement Hotspot (Rhs) Systems. PLoS Genetics, 2011, 7, e1002217.	3.5	175
8	Bacterial contact-dependent growth inhibition. Trends in Microbiology, 2013, 21, 230-237.	7.7	150
9	Proline Residues at the C Terminus of Nascent Chains Induce SsrA Tagging during Translation Termination. Journal of Biological Chemistry, 2002, 277, 33825-33832.	3.4	139
10	The tmRNA ribosome-rescue system. Advances in Protein Chemistry and Structural Biology, 2012, 86, 151-191.	2.3	138
11	Contact-dependent growth inhibition toxins exploit multiple independent cell-entry pathways. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11341-11346.	7.1	108
12	Stop codons preceded by rare arginine codons are efficient determinants of SsrA tagging inEscherichia coli. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 3440-3445.	7.1	105
13	Contact-Dependent Growth Inhibition (CDI) and CdiB/CdiA Two-Partner Secretion Proteins. Journal of Molecular Biology, 2015, 427, 3754-3765.	4.2	101
14	Prolyl-tRNAPro in the A-site of SecM-arrested Ribosomes Inhibits the Recruitment of Transfer-messenger RNA. Journal of Biological Chemistry, 2006, 281, 34258-34268.	3.4	89
15	Mechanisms and Biological Roles of Contact-Dependent Growth Inhibition Systems. Cold Spring Harbor Perspectives in Medicine, 2014, 4, a010025-a010025.	6.2	89
16	Structural basis of toxicity and immunity in contact-dependent growth inhibition (CDI) systems. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 21480-21485.	7.1	86
17	The toxin/immunity network of <i>Burkholderia pseudomallei</i> contactâ€dependent growth inhibition (CDI) systems. Molecular Microbiology, 2012, 84, 516-529.	2.5	86
18	Identification of a target cell permissive factor required for contact-dependent growth inhibition (CDI). Genes and Development, 2012, 26, 515-525.	5.9	85

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19	Receptor Polymorphism Restricts Contact-Dependent Growth Inhibition to Members of the Same Species. MBio, 2013, 4, .	4.1	85
20	tmRNA regulates synthesis of the ArfA ribosome rescue factor. Molecular Microbiology, 2011, 80, 1204-1219.	2.5	83
21	Programmed Secretion Arrest and Receptor-Triggered Toxin Export during Antibacterial Contact-Dependent Growth Inhibition. Cell, 2018, 175, 921-933.e14.	28.9	71
22	Beyond ribosome rescue: tmRNA and coâ€translational processes. FEBS Letters, 2010, 584, 413-419.	2.8	70
23	A novel family of toxin/antitoxin proteins in <i>Bacillus</i> species. FEBS Letters, 2012, 586, 132-136.	2.8	70
24	Infectious polymorphic toxins delivered by outer membrane exchange discriminate kin in myxobacteria. ELife, 2017, 6, .	6.0	70
25	Polymorphic Toxins and Their Immunity Proteins: Diversity, Evolution, and Mechanisms of Delivery. Annual Review of Microbiology, 2020, 74, 497-520.	7.3	68
26	Delivery of CdiA Nuclease Toxins into Target Cells during Contact-Dependent Growth Inhibition. PLoS ONE, 2013, 8, e57609.	2.5	62
27	Signals of growth regulation in bacteria. Current Opinion in Microbiology, 2009, 12, 667-673.	5.1	60
28	CdiA from Enterobacter cloacae Delivers a Toxic Ribosomal RNase into Target Bacteria. Structure, 2014, 22, 707-718.	3.3	60
29	Selection of Orphan Rhs Toxin Expression in Evolved Salmonella enterica Serovar Typhimurium. PLoS Genetics, 2014, 10, e1004255.	3.5	56
30	<scp>CdiA</scp> promotes receptorâ€independent intercellular adhesion. Molecular Microbiology, 2015, 98, 175-192.	2.5	56
31	Toxin-Antitoxin Pairs in Bacteria. Cell, 2003, 112, 2-4.	28.9	51
32	Recombineering Reveals a Diverse Collection of Ribosomal Proteins L4 and L22 that Confer Resistance to Macrolide Antibiotics. Journal of Molecular Biology, 2009, 386, 300-315.	4.2	51
33	Mechanistic Model of Rothia mucilaginosa Adaptation toward Persistence in the CF Lung, Based on a Genome Reconstructed from Metagenomic Data. PLoS ONE, 2013, 8, e64285.	2.5	51
34	Amino Acid Starvation and Colicin D Treatment Induce A-site mRNA Cleavage in Escherichia coli. Journal of Molecular Biology, 2008, 378, 505-519.	4.2	50
35	Translation factor LepA contributes to tellurite resistance in Escherichia coli but plays no apparent role in the fidelity of protein synthesis. Biochimie, 2010, 92, 157-163.	2.6	49
36	CdiA Effectors Use Modular Receptor-Binding Domains To Recognize Target Bacteria. MBio, 2017, 8, .	4.1	46

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37	Toxin on a stick. Virulence, 2011, 2, 356-359.	4.4	44
38	Structure of the DNA-SspC Complex: Implications for DNA Packaging, Protection, and Repair in Bacterial Spores. Journal of Bacteriology, 2004, 186, 3525-3530.	2.2	43
39	Proteobacterial ArfA Peptides Are Synthesized from Non-stop Messenger RNAs. Journal of Biological Chemistry, 2012, 287, 29765-29775.	3.4	41
40	CdiA Effectors from Uropathogenic Escherichia coli Use Heterotrimeric Osmoporins as Receptors to Recognize Target Bacteria. PLoS Pathogens, 2016, 12, e1005925.	4.7	41
41	Analysis of Aminoacyl- and Peptidyl-tRNAs by Gel Electrophoresis. , 2012, 905, 291-309.		40
42	In Vitro and In Vivo Oxidation of Methionine Residues in Small, Acid-Soluble Spore Proteins from <i>Bacillus</i> Species. Journal of Bacteriology, 1998, 180, 2694-2700.	2.2	40
43	RNase II is important for Aâ€site mRNA cleavage during ribosome pausing. Molecular Microbiology, 2009, 73, 882-897.	2.5	39
44	Unraveling the essential role of CysK in CDI toxin activation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 9792-9797.	7.1	37
45	Moonlighting O-acetylserine sulfhydrylase: New functions for an old protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1184-1193.	2.3	35
46	Activation of contact-dependent antibacterial tRNase toxins by translation elongation factors. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1951-E1957.	7.1	33
47	Kinetics of Paused Ribosome Recycling in Escherichia coli. Journal of Molecular Biology, 2009, 394, 251-267.	4.2	32
48	The Î²-encapsulation cage of rearrangement hotspot (Rhs) effectors is required for type VI secretion. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33540-33548.	7.1	32
49	The protonâ€motive force is required for translocation of <scp>CDI</scp> toxins across the inner membrane of target bacteria. Molecular Microbiology, 2014, 94, 466-481.	2.5	30
50	Diversification of Î²-Augmentation Interactions between CDI Toxin/Immunity Proteins. Journal of Molecular Biology, 2015, 427, 3766-3784.	4.2	30
51	The CDI toxin of Yersinia kristensenii is a novel bacterial member of the RNase A superfamily. Nucleic Acids Research, 2017, 45, 5013-5025.	14.5	30
52	Functional Diversity of Cytotoxic tRNase/Immunity Protein Complexes from Burkholderia pseudomallei. Journal of Biological Chemistry, 2016, 291, 19387-19400.	3.4	28
53	An Î±/Î²-Type, Small, Acid-Soluble Spore Protein Which Has Very High Affinity for DNA Prevents Outgrowth of Bacillus subtilis Spores. Journal of Bacteriology, 2001, 183, 2662-2666.	2.2	27
54	Target highlights in <scp>CASP14</scp>: Analysis of models by structure providers. Proteins: Structure, Function and Bioinformatics, 2021, 89, 1647-1672.	2.6	27

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55	YoeB toxin is activated during thermal stress. MicrobiologyOpen, 2015, 4, 682-697.	3.0	26
56	Ribosomal Protein S12 and Aminoglycoside Antibiotics Modulate A-site mRNA Cleavage and Transfer-Messenger RNA Activity in Escherichia coli. Journal of Biological Chemistry, 2009, 284, 32188-32200.	3.4	25
57	Genetic Analysis of the CDI Pathway from Burkholderia pseudomallei 1026b. PLoS ONE, 2015, 10, e0120265.	2.5	25
58	Functional plasticity of antibacterial EndoU toxins. Molecular Microbiology, 2018, 109, 509-527.	2.5	25
59	Structure of a novel antibacterial toxin that exploits elongation factor Tu to cleave specific transfer RNAs. Nucleic Acids Research, 2017, 45, 10306-10320.	14.5	23
60	Convergent Evolution of the Barnase/EndoU/Colicin/RelE (BECR) Fold in Antibacterial tRNase Toxins. Structure, 2019, 27, 1660-1674.e5.	3.3	22
61	Equilibrium and Kinetic Binding Interactions between DNA and a Group of Novel, Nonspecific DNA-binding Proteins from Spores ofBacillus and Clostridium Species. Journal of Biological Chemistry, 2000, 275, 35040-35050.	3.4	20
62	Alternative Fates of Paused Ribosomes during Translation Termination. Journal of Biological Chemistry, 2011, 286, 31105-31112.	3.4	20
63	CDI Systems Are Stably Maintained by a Cell-Contact Mediated Surveillance Mechanism. PLoS Genetics, 2016, 12, e1006145.	3.5	20
64	N-terminal Amino Acid Residues Mediate Protein-Protein Interactions between DNA-bound Î±/Î²-Type Small, Acid-soluble Spore Proteins from Bacillus Species. Journal of Biological Chemistry, 2001, 276, 2267-2275.	3.4	16
65	A-Site mRNA Cleavage Is Not Required for tmRNA-Mediated ssrA-Peptide Tagging. PLoS ONE, 2013, 8, e81319.	2.5	16
66	Modulation of <i>Escherichia coli</i> serine acetyltransferase catalytic activity in the cysteine synthase complex. FEBS Letters, 2017, 591, 1212-1224.	2.8	15
67	Deletion of the RluD pseudouridine synthase promotes SsrA peptide tagging of ribosomal protein S7. Molecular Microbiology, 2011, 79, 331-341.	2.5	14
68	The <scp>F</scp> pilus mediates a novel pathway of <scp>CDI</scp> toxin import. Molecular Microbiology, 2014, 93, 276-290.	2.5	14
69	Non-pathogenic Escherichia coli Enhance Stx2a Production of E. coli O157:H7 Through Both bamA-Dependent and Independent Mechanisms. Frontiers in Microbiology, 2018, 9, 1325.	3.5	13
70	Target highlights in CASP13: Experimental target structures through the eyes of their authors. Proteins: Structure, Function and Bioinformatics, 2019, 87, 1037-1057.	2.6	12
71	Can't you hear me knocking: contact-dependent competition and cooperation in bacteria. Emerging Topics in Life Sciences, 2017, 1, 75-83.	2.6	11
72	Target highlights from the first postâ€PSI CASP experiment (CASP12, Mayâ€"August 2016). Proteins: Structure, Function and Bioinformatics, 2018, 86, 27-50.	2.6	11

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73	Identification of Protein-Protein Contacts between Î±/Î²-Type Small, Acid-soluble Spore Proteins of Bacillus Species Bound to DNA. Journal of Biological Chemistry, 1998, 273, 17326-17332.	3.4	9
74	The N-Terminus of GalE Induces tmRNA Activity in Escherichia coli. PLoS ONE, 2010, 5, e15207.	2.5	9
75	The structure of a contact-dependent growth-inhibition (CDI) immunity protein from<i>Neisseria meningitidis</i>MC58. Acta Crystallographica Section F, Structural Biology Communications, 2015, 71, 702-709.	0.8	7
76	Activation of an anti-bacterial toxin by the biosynthetic enzyme CysK: mechanism of binding, interaction specificity and competition with cysteine synthase. Scientific Reports, 2017, 7, 8817.	3.3	7
77	The Cytoplasm-Entry Domain of Antibacterial CdiA Is a Dynamic Î±-Helical Bundle with Disulfide-Dependent Structural Features. Journal of Molecular Biology, 2019, 431, 3203-3216.	4.2	7
78	Genetic Evidence for SecY Translocon-Mediated Import of Two Contact-Dependent Growth Inhibition (CDI) Toxins. MBio, 2021, 12, .	4.1	6
79	Escherichia coli EC93 deploys two plasmid-encoded class I contact-dependent growth inhibition systems for antagonistic bacterial interactions. Microbial Genomics, 2021, 7, .	2.0	6
80	Functional and Structural Diversity of Bacterial Contact-Dependent Growth Inhibition Effectors. Frontiers in Molecular Biosciences, 2022, 9, 866854.	3.5	6
81	Genome Engineering Using Targeted Oligonucleotide Libraries and Functional Selection. Methods in Molecular Biology, 2011, 765, 71-82.	0.9	4
82	Lipidation of Class IV CdiA Effector Proteins Promotes Target Cell Recognition during Contact-Dependent Growth Inhibition. MBio, 2021, 12, e0253021.	4.1	4
83	Measuring Cellâ€“Cell Binding Using Flow-Cytometry. Methods in Molecular Biology, 2015, 1329, 127-136.	0.9	3