David Bikard

List of Publications by Year
in descending order

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49 papers	8,154 citations	126907 33 h-index	182427 51 g-index
67 all docs	67 docs citations	67 times ranked	8826 citing authors

#	Article	IF	Citations
1	Microbial defenses against mobile genetic elements and viruses: Who defends whom from what?. PLoS Biology, 2022, 20, e3001514.	5.6	83
2	Phages and their satellites encode hotspots of antiviral systems. Cell Host and Microbe, 2022, 30, 740-753.e5.	11.0	129
3	Phageâ€“host coevolution in natural populations. Nature Microbiology, 2022, 7, 1075-1086.	13.3	58
4	Generating functional protein variants with variational autoencoders. PLoS Computational Biology, 2021, 17, e1008736.	3.2	106
5	Lipoprotein DolP supports proper folding of BamA in the bacterial outer membrane promoting fitness upon envelope stress. ELife, 2021, 10, .	6.0	15
6	High-throughput identification of viral termini and packaging mechanisms in virome datasets using PhageTermVirome. Scientific Reports, 2021, 11, 18319.	3.3	6
7	The impact of genetic diversity on gene essentiality within the Escherichia coli species. Nature Microbiology, 2021, 6, 301-312.	13.3	76
8	Atypical organizations and epistatic interactions of CRISPRs and cas clusters in genomes and their mobile genetic elements. Nucleic Acids Research, 2020, 48, 748-760.	14.5	32
9	Gene silencing with CRISPRi in bacteria and optimization of dCas9 expression levels. Methods, 2020, 172, 61-75.	3.8	45
10	Structure-specific DNA recombination sites: Design, validation, and machine learningâ€“based refinement. Science Advances, 2020, 6, eaay2922.	10.3	17
11	On-target activity predictions enable improved CRISPRâ€“dCas9 screens in bacteria. Nucleic Acids Research, 2020, 48, e64-e64.	14.5	43
12	CRISPR Tools To Control Gene Expression in Bacteria. Microbiology and Molecular Biology Reviews, 2020, 84, .	6.6	46
13	CRISPR screens in the era of microbiomes. Current Opinion in Microbiology, 2020, 57, 70-77.	5.1	15
14	Class-A penicillin binding proteins do not contribute to cell shape but repair cell-wall defects. ELife, 2020, 9, .	6.0	108
15	Methods for the Analysis and Characterization of Defense Mechanisms Against Horizontal Gene Transfer: CRISPR Systems. Methods in Molecular Biology, 2020, 2075, 235-249.	0.9	0
16	Learning from Antibodies: Phage Host-Range Engineering. Cell Host and Microbe, 2019, 26, 445-446.	11.0	3
17	A matter of background: DNA repair pathways as a possible cause for the sparse distribution of CRISPR-Cas systems in bacteria. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180088.	4.0	30
18	Editing the microbiome the CRISPR way. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180103.	4.0	70

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19	Tuning dCas9's ability to block transcription enables robust, noiseless knockdown of bacterial genes. Molecular Systems Biology, 2018, 14, e7899.	7.2	92
20	Genome-wide CRISPR-dCas9 screens in E. coli identify essential genes and phage host factors. PLoS Genetics, 2018, 14, e1007749.	3.5	163
21	A CRISPRi screen in E. coli reveals sequence-specific toxicity of dCas9. Nature Communications, 2018, 9, 1912.	12.8	203
22	Microbial-derived products as potential new antimicrobials. Veterinary Research, 2018, 49, 66.	3.0	53
23	Differences in Integron Cassette Excision Dynamics Shape a Trade-Off between Evolvability and Genetic Capacitance. MBio, 2017, 8, .	4.1	27
24	Mutations in Cas9 Enhance the Rate of Acquisition of Viral Spacer Sequences during the CRISPR-Cas Immune Response. Molecular Cell, 2017, 65, 168-175.	9.7	47
25	Guest editorial: CRISPRcas9: CRISPR-Cas systems: at the cutting edge of microbiology. Current Opinion in Microbiology, 2017, 37, vii-viii.	5.1	0
26	PhageTerm: a tool for fast and accurate determination of phage termini and packaging mechanism using next-generation sequencing data. Scientific Reports, 2017, 7, 8292.	3.3	443
27	Using CRISPR-Cas systems as antimicrobials. Current Opinion in Microbiology, 2017, 37, 155-160.	5.1	93
28	Inhibition of NHEJ repair by type II-A CRISPR-Cas systems in bacteria. Nature Communications, 2017, 8, 2094.	12.8	77
29	Consequences of Cas9 cleavage in the chromosome of<i>Escherichia coli</i>. Nucleic Acids Research, 2016, 44, 4243-4251.	14.5	225
30	A Eukaryotic-like Serine/Threonine Kinase Protects Staphylococci against Phages. Cell Host and Microbe, 2016, 20, 471-481.	11.0	72
31	Impact of Different Target Sequences on Type III CRISPR-Cas Immunity. Journal of Bacteriology, 2016, 198, 941-950.	2.2	46
32	Cas9 specifies functional viral targets during CRISPRâ€“Cas adaptation. Nature, 2015, 519, 199-202.	27.8	330
33	Adapting to new threats: the generation of memory by <scp>CRISPRâ€Cas</scp> immune systems. Molecular Microbiology, 2014, 93, 1-9.	2.5	80
34	The Integron Integrase Efficiently Prevents the Melting Effect of Escherichia coli Single-Stranded DNA-Binding Protein on Folded <i>attC</i> Sites. Journal of Bacteriology, 2014, 196, 762-771.	2.2	17
35	Exploiting CRISPR-Cas nucleases to produce sequence-specific antimicrobials. Nature Biotechnology, 2014, 32, 1146-1150.	17.5	718
36	Conditional tolerance of temperate phages via transcription-dependent CRISPR-Cas targeting. Nature, 2014, 514, 633-637.	27.8	257

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37	Shuffling of DNA Cassettes in a Synthetic Integron. Methods in Molecular Biology, 2013, 1073, 169-174.	0.9	5
38	RNA-guided editing of bacterial genomes using CRISPR-Cas systems. Nature Biotechnology, 2013, 31, 233-239.	17.5	2,071
39	Programmable repression and activation of bacterial gene expression using an engineered CRISPR-Cas system. Nucleic Acids Research, 2013, 41, 7429-7437.	14.5	960
40	Control of gene expression by CRISPR-Cas systems. F1000prime Reports, 2013, 5, 47.	5.9	41
41	CRISPR Interference Can Prevent Natural Transformation and Virulence Acquisition during InÂVivo Bacterial Infection. Cell Host and Microbe, 2012, 12, 177-186.	11.0	284
42	Innate and adaptive immunity in bacteria: mechanisms of programmed genetic variation to fight bacteriophages. Current Opinion in Immunology, 2012, 24, 15-20.	5.5	96
43	Cellular pathways controlling integron cassette site folding. EMBO Journal, 2010, 29, 2623-2634.	7.8	32
44	Cellular pathways controlling integron cassette site folding. EMBO Journal, 2010, 29, 3745-3745.	7.8	8
45	The synthetic integron: an in vivo genetic shuffling device. Nucleic Acids Research, 2010, 38, e153-e153.	14.5	35
46	Conjugative DNA Transfer Induces the Bacterial SOS Response and Promotes Antibiotic Resistance Development through Integron Activation. PLoS Genetics, 2010, 6, e1001165.	3.5	228
47	Folded DNA in Action: Hairpin Formation and Biological Functions in Prokaryotes. Microbiology and Molecular Biology Reviews, 2010, 74, 570-588.	6.6	161
48	Divergent Evolution of Duplicate Genes Leads to Genetic Incompatibilities Within <i>A. thaliana</i>. Science, 2009, 323, 623-626.	12.6	264
49	Structural Features of Single-Stranded Integron Cassette attC Sites and Their Role in Strand Selection. PLoS Genetics, 2009, 5, e1000632.	3.5	56