Chase Beisel

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

74 papers	3,315 citations	30 h-index	57 g-index
88 ext. papers	4,241 ext. citations	11.6 avg, IF	5.96 L-index

#	Paper	IF	Citations
74	Self-assembled DNA nanoclews for the efficient delivery of CRISPR-Cas9 for genome editing. *Angewandte Chemie - International Edition*, **2015**, 54, 12029-33	16.4	393
73	Programmable removal of bacterial strains by use of genome-targeting CRISPR-Cas systems. *MBio*, **2014**, 5, e00928-13	7.8	236
72	Base pairing small RNAs and their roles in global regulatory networks. *FEMS Microbiology Reviews*, **2010**, 34, 866-82	15.1	219
71	Identifying and Visualizing Functional PAM Diversity across CRISPR-Cas Systems. *Molecular Cell*, **2016**, 62, 137-47	17.6	206
70	Guide RNA functional modules direct Cas9 activity and orthogonality. *Molecular Cell*, **2014**, 56, 333-339	17.6	174
69	The base-pairing RNA spot 42 participates in a multioutput feedforward loop to help enact catabolite repression in Escherichia coli. *Molecular Cell*, **2011**, 41, 286-97	17.6	158
68	Repurposing endogenous type I CRISPR-Cas systems for programmable gene repression. *Nucleic Acids Research*, **2015**, 43, 674-81	20.1	153
67	Rapid and Scalable Characterization of CRISPR Technologies Using an E.coli Cell-Free Transcription-Translation System. *Molecular Cell*, **2018**, 69, 146-157.e3	17.6	117
66	Model-guided design of ligand-regulated RNAi for programmable control of gene expression. *Molecular Systems Biology*, **2008**, 4, 224	12.2	101
65	Design principles for riboswitch function. *PLoS Computational Biology*, **2009**, 5, e1000363	5	100
64	Design of small molecule-responsive microRNAs based on structural requirements for Drosha processing. *Nucleic Acids Research*, **2011**, 39, 2981-94	20.1	100
63	Deciphering, Communicating, and Engineering the CRISPR PAM. *Journal of Molecular Biology*, **2017**, 429, 177-191	6.5	99
62	CRISPR RNA-Dependent Binding and Cleavage of Endogenous RNAs by the Campylobacter jejuni Cas9. *Molecular Cell*, **2018**, 69, 893-905.e7	17.6	85
61	Multiple factors dictate target selection by Hfq-binding small RNAs. *EMBO Journal*, **2012**, 31, 1961-74	13	83
60	Current and future prospects for CRISPR-based tools in bacteria. *Biotechnology and Bioengineering*, **2016**, 113, 930-43	4.9	79
59	Short DNA containing [illegible]sites enhances DNA stability and gene expression in E. coli cell-free transcription-translation systems. *Biotechnology and Bioengineering*, **2017**, 114, 2137-2141	4.9	59
58	Synthetic Biology Approaches to Engineer Probiotics and Members of the Human Microbiota for Biomedical Applications. *Annual Review of Biomedical Engineering*, **2018**, 20, 277-300	12	56

57	Bacterial Adaptation to the Host's Diet Is a Key Evolutionary Force Shaping Drosophila-Lactobacillus Symbiosis. *Cell Host and Microbe*, **2018**, 24, 109-119.e6	23.4	53
56	Genome Editing with CRISPR-Cas9 in Lactobacillus plantarum Revealed That Editing Outcomes Can Vary Across Strains and Between Methods. *Biotechnology Journal*, **2019**, 14, e1700583	5.6	50
55	Barriers to genome editing with CRISPR in bacteria. *Journal of Industrial Microbiology and Biotechnology*, **2019**, 46, 1327-1341	4.2	46
54	A CRISPR design for next-generation antimicrobials. *Genome Biology*, **2014**, 15, 516	18.3	43
53	CRISPR technologies and the search for the PAM-free nuclease. *Nature Communications*, **2021**, 12, 555	17.4	43
52	Bacterial sugar utilization gives rise to distinct single-cell behaviours. *Molecular Microbiology*, **2014**, 93, 1093-1103	4.1	42
51	Synthetic control of a fitness tradeoff in yeast nitrogen metabolism. *Journal of Biological Engineering*, **2009**, 3, 1	6.3	41
50	Cochlear whole mount in situ hybridization: identification of longitudinal and radial gradients. *Brain Research Protocols*, **2002**, 9, 65-76		38
49	CRISPR-Cas Systems and the Paradox of Self-Targeting Spacers. *Frontiers in Microbiology*, **2019**, 10, 3078	5.7	37
48	Modular one-pot assembly of CRISPR arrays enables library generation and reveals factors influencing crRNA biogenesis. *Nature Communications*, **2019**, 10, 2948	17.4	37
47	Targeted transcriptional modulation with type I CRISPR-Cas systems in human cells. *Nature Biotechnology*, **2019**, 37, 1493-1501	44.5	37
46	The CRISPR RNA-guided surveillance complex in Escherichia coli accommodates extended RNA spacers. *Nucleic Acids Research*, **2016**, 44, 7385-94	20.1	36
45	Noncanonical crRNAs derived from host transcripts enable multiplexable RNA detection by Cas9. *Science*, **2021**, 372, 941-948	33.3	30
44	Mathematical Modeling of RNA-Based Architectures for Closed Loop Control of Gene Expression. *ACS Synthetic Biology*, **2018**, 7, 1219-1228	5.7	29
43	Toward a genetic tool development pipeline for host-associated bacteria. *Current Opinion in Microbiology*, **2017**, 38, 156-164	7.9	26
42	Characterization of the all-E. coli transcription-translation system myTXTL by mass spectrometry. *Rapid Communications in Mass Spectrometry*, **2019**, 33, 1036-1048	2.2	24
41	Competitive Exclusion Is a Major Bioprotective Mechanism of Lactobacilli against Fungal Spoilage in Fermented Milk Products. *Applied and Environmental Microbiology*, **2020**, 86,	4.8	24
40	Understanding and exploiting feedback in synthetic biology. *Chemical Engineering Science*, **2013**, 103, 79-90	4.4	22

39	Distinct timescales of RNA regulators enable the construction of a genetic pulse generator. *Biotechnology and Bioengineering*, **2019**, 116, 1139-1151	4.9	22
38	A detailed cell-free transcription-translation-based assay to decipher CRISPR protospacer-adjacent motifs. *Methods*, **2018**, 143, 48-57	4.6	21
37	Discriminating tastes: physiological contributions of the Hfq-binding small RNA Spot 42 to catabolite repression. *RNA Biology*, **2011**, 8, 766-70	4.8	21
36	Rethinking the Hierarchy of Sugar Utilization in Bacteria. *Journal of Bacteriology*, **2016**, 198, 374-6	3.5	19
35	Advancing the design and delivery of CRISPR antimicrobials. *Current Opinion in Biomedical Engineering*, **2017**, 4, 57-64	4.4	16
34	An educational module to explore CRISPR technologies with a cell-free transcription-translation system. *Synthetic Biology*, **2019**, 4, ysz005	3.3	15
33	The Francisella novicida Cas12a is sensitive to the structure downstream of the terminal repeat in CRISPR arrays. *RNA Biology*, **2019**, 16, 404-412	4.8	13
32	Characterization of Cas12a nucleases reveals diverse PAM profiles between closely-related orthologs. *Nucleic Acids Research*, **2020**, 48, 5624-5638	20.1	11
31	Trade-offs in engineering sugar utilization pathways for titratable control. *ACS Synthetic Biology*, **2015**, 4, 141-9	5.7	11
30	An enhanced assay to characterize anti-CRISPR proteins using a cell-free transcription-translation system. *Methods*, **2020**, 172, 42-50	4.6	10
29	Biomanufacturing of Small Molecules in the Mammalian Gut by Probiotic. *ACS Synthetic Biology*, **2021**, 10, 1039-1052	5.7	9
28	A positive, growth-based PAM screen identifies noncanonical motifs recognized by the Cas9. *Science Advances*, **2020**, 6, eabb4054	14.3	8
27	The Acidaminococcus sp. Cas12a nuclease recognizes GTTV and GCTV as non-canonical PAMs. *FEMS Microbiology Letters*, **2019**, 366,	2.9	7
26	Sequence-independent RNA sensing and DNA targeting by a split domain CRISPR-Cas12a gRNA switch. *Nucleic Acids Research*, **2021**, 49, 2985-2999	20.1	7
25	The tracrRNA in CRISPR Biology and Technologies. *Annual Review of Genetics*, **2021**, 55, 161-181	14.5	7
24	A genetically encoded anti-CRISPR protein constrains gene drive spread and prevents population suppression. *Nature Communications*, **2021**, 12, 3977	17.4	6
23	Rapid and scalable characterization of CRISPR technologies using an E. coli cell-free transcription-translation system		5
22	One-step assembly of large CRISPR arrays enables multi-functional targeting and reveals constraints on array design		5

21	Construction of ligand-responsive microRNAs that operate through inhibition of Drosha processing. *Methods in Molecular Biology*, **2014**, 1111, 259-67	1.4	4
20	Conformational analysis of gossypol and its derivatives by molecular mechanics. *Computational and Theoretical Chemistry*, **2005**, 730, 51-58		3
19	Tunable self-cleaving ribozymes for modulating gene expression in eukaryotic systems. *PLoS ONE*, **2020**, 15, e0232046	3.7	2
18	Bacterial adaptation to diet is a key evolutionary force shaping Drosophila-Lactobacillus symbiosis		2
17	Rapid Testing of CRISPR Nucleases and Guide RNAs in an Cell-Free Transcription-Translation System. *STAR Protocols*, **2020**, 1, 100003	1.4	2
16	Coupling smartphone and CRISPR Cas12a for digital and multiplexed nucleic acid detection. *AICHE Journal*,e17365	3.6	2
15	Rapid cell-free characterization of multi-subunit CRISPR effectors and transposons		1
14	Distinct timescales of RNA regulators enable the construction of a genetic pulse generator		1
13	Establishing Probiotic Saccharomyces boulardii as a Model Organism for Synthesis and Delivery of Biomolecules		1
12	Streamlined, recombinase-free genome editing with CRISPR-Cas9 inLactobacillus plantarumreveals barriers to efficient editing		1
11	CRISPR transposons on the move. *Cell Host and Microbe*, **2021**, 29, 675-677	23.4	1
10	CRATES: A one-step assembly method for Class 2 CRISPR arrays. *Methods in Enzymology*, **2019**, 629, 493-511	1.7	1
9	A TXTL-Based Assay to Rapidly Identify PAMs for CRISPR-Cas Systems with Multi-Protein Effector Complexes.. *Methods in Molecular Biology*, **2022**, 2433, 391-411	1.4	0
8	Rapidly Characterizing CRISPR-Cas13 Nucleases Using Cell-Free Transcription-Translation Systems. *Methods in Molecular Biology*, **2022**, 2404, 135-153	1.4	0
7	Illuminating the path to DNA repair. *Cell*, **2021**, 184, 5503-5505	56.2	0
6	Beneficial commensal bacteria promote Drosophila growth by down-regulating the expression of peptidoglycan recognition proteins. *IScience*, **2022**, 104357	6.1	0
5	Genome Editing with Cas9 in Lactobacilli.. *Methods in Molecular Biology*, **2022**, 2479, 245-261	1.4	0
4	Impact of Residual Inducer on Titratable Expression Systems. *PLoS ONE*, **2015**, 10, e0137421	3.7	

3	Your Base Editor Might Be Flirting with Single (Stranded) DNA: Faithful On-Target CRISPR Base Editing without Promiscuous Deamination. *Molecular Cell*, **2020**, 79, 703-704	17.6
2	CRISPR memories in single cells.. *Molecular Systems Biology*, **2022**, 18, e11011	12.2
1	Reprogramming TracrRNAs for Multiplexed RNA Detection. *Methods in Molecular Biology*, **2022**, 217-235	1.4