

Sangsu Bae

List of Publications by Year in Descending Order

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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.

86
papers

4,848
citations

23
h-index

69
g-index

97
ext. papers

6,269
ext. citations

9.8
avg. IF

6.02
L-index

#	Paper	IF	Citations
86	Comprehensive analysis of prime editing outcomes in human embryonic stem cells.. <i>Nucleic Acids Research</i> , 2022 ,	20.1	5
85	High expression of uracil DNA glycosylase determines C to T substitution in human pluripotent stem cells.. <i>Molecular Therapy - Nucleic Acids</i> , 2022 , 27, 175-183	10.7	1
84	Multiple isogenic GNE-myopathy modeling with mutation specific phenotypes from human pluripotent stem cells by base editors.. <i>Biomaterials</i> , 2022 , 282, 121419	15.6	1
83	Computational Tools for Target Design and Analysis 2022 , 61-72		
82	The freshwater water flea <i>Daphnia magna</i> NIES strain genome as a resource for CRISPR/Cas9 gene targeting: The glutathione S-transferase omega 2 gene. <i>Aquatic Toxicology</i> , 2021 , 242, 106021	5.1	2
81	Arabidopsis ATXR2 represses de novo shoot organogenesis in the transition from callus to shoot formation. <i>Cell Reports</i> , 2021 , 37, 109980	10.6	2
80	A thermodynamic understanding of the salt-induced B-to-Z transition of DNA containing BZ junctions. <i>Biochemical and Biophysical Research Communications</i> , 2021 , 583, 142-145	3.4	0
79	PE-Designer and PE-Analyzer: web-based design and analysis tools for CRISPR prime editing. <i>Nucleic Acids Research</i> , 2021 , 49, W499-W504	20.1	14
78	In vivo gene editing via homology-independent targeted integration for adrenoleukodystrophy treatment. <i>Molecular Therapy</i> , 2021 ,	11.7	1
77	Enhancing plant immunity by expression of pathogen-targeted CRISPR-Cas9 in plants 2021 , 1, 100001		1
76	Analysis of NHEJ-Based DNA Repair after CRISPR-Mediated DNA Cleavage. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	2
75	Current widely-used web-based tools for CRISPR nucleases, base editors, and prime editors 2021 , 1, 100004		0
74	Adenine base editor engineering reduces editing of bystander cytosines. <i>Nature Biotechnology</i> , 2021 , 39, 1426-1433	44.5	7
73	Transcriptomic and physiological analysis of OsCAO1 knockout lines using the CRISPR/Cas9 system in rice. <i>Plant Cell Reports</i> , 2021 , 40, 1013-1024	5.1	3
72	Web-Based Base Editing Toolkits: BE-Designer and BE-Analyzer. <i>Methods in Molecular Biology</i> , 2021 , 2189, 81-88	1.4	0
71	Simultaneous targeting of duplicated genes in <i>Petunia</i> protoplasts for flower color modification via CRISPR-Cas9 ribonucleoproteins. <i>Plant Cell Reports</i> , 2021 , 40, 1037-1045	5.1	30
70	Efficient Human Cell Coexpression System and Its Application to the Production of Multiple Coronavirus Antigens. <i>Advanced Biology</i> , 2021 , 5, e2000154		1

69	CREVIS-Seq: A highly accurate and multiplexable method for genome-wide mapping of lentiviral integration sites. <i>Molecular Therapy - Methods and Clinical Development</i> , 2021 , 20, 792-800	6.4	2
68	LPA2 protein is involved in photosystemII assembly in <i>Chlamydomonas reinhardtii</i> . <i>Plant Journal</i> , 2021 , 107, 1648-1662	6.9	5
67	High-purity production and precise editing of DNA base editing ribonucleoproteins. <i>Science Advances</i> , 2021 , 7,	14.3	8
66	AC-motif: a DNA motif containing adenine and cytosine repeat plays a role in gene regulation. <i>Nucleic Acids Research</i> , 2021 , 49, 10150-10165	20.1	3
65	Adenine base editing and prime editing of chemically derived hepatic progenitors rescue genetic liver disease. <i>Cell Stem Cell</i> , 2021 , 28, 1614-1624.e5	18	13
64	Quantitative assessment of engineered Cas9 variants for target specificity enhancement by single-molecule reaction pathway analysis. <i>Nucleic Acids Research</i> , 2021 , 49, 11312-11322	20.1	1
63	genome editing in single mammalian brain neurons through CRISPR-Cas9 and cytosine base editors. <i>Computational and Structural Biotechnology Journal</i> , 2021 , 19, 2477-2485	6.8	
62	Web-Based CRISPR Toolkits: Cas-OFFinder, Cas-Designer, and Cas-Analyzer. <i>Methods in Molecular Biology</i> , 2021 , 2162, 23-33	1.4	5
61	Purification of an Intact Human Protein Overexpressed from Its Endogenous Locus Direct Genome Engineering. <i>ACS Synthetic Biology</i> , 2020 , 9, 1591-1598	5.7	1
60	Current trends in gene recovery mediated by the CRISPR-Cas system. <i>Experimental and Molecular Medicine</i> , 2020 , 52, 1016-1027	12.8	14
59	i-Silence, Please! An Alternative for Gene Disruption via Adenine Base Editors. <i>Molecular Therapy</i> , 2020 , 28, 348-349	11.7	2
58	CRISPR-mediated gene correction links the ATP7A M1311V mutations with amyotrophic lateral sclerosis pathogenesis in one individual. <i>Communications Biology</i> , 2020 , 3, 33	6.7	5
57	Generation of albino via SLC45a2 gene targeting by CRISPR/Cas9 in the marine medaka <i>Oryzias melastigma</i> . <i>Marine Pollution Bulletin</i> , 2020 , 154, 111038	6.7	3
56	Anti-Atherogenic Effect of Stem Cell Nanovesicles Targeting Disturbed Flow Sites. <i>Small</i> , 2020 , 16, e2000012	11.2	9
55	Safe scarless cassette-free selection of genome-edited human pluripotent stem cells using temporary drug resistance. <i>Biomaterials</i> , 2020 , 262, 120295	15.6	5
54	CRISPR-sub: Analysis of DNA substitution mutations caused by CRISPR-Cas9 in human cells. <i>Computational and Structural Biotechnology Journal</i> , 2020 , 18, 1686-1694	6.8	7
53	Generation and Transcriptome Profiling of Slr1-d7 and Slr1-d8 Mutant Lines with a New Semi-Dominant Dwarf Allele of Using the CRISPR/Cas9 System in Rice. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	3
52	Current Status and Challenges of DNA Base Editing Tools. <i>Molecular Therapy</i> , 2020 , 28, 1938-1952	11.7	27

51	Knockout of Gene (Encoding bHLH Transcription Factor Using CRISPR/Cas9 System Confers Male Sterility Phenotype in Tomato. <i>Plants</i> , 2020 , 9,	4.5	6
50	Adenine base editors catalyze cytosine conversions in human cells. <i>Nature Biotechnology</i> , 2019 , 37, 1145-1148	11.8	51
49	CRISPR-Pass: Gene Rescue of Nonsense Mutations Using Adenine Base Editors. <i>Molecular Therapy</i> , 2019 , 27, 1364-1371	11.7	21
48	CRISPR-Cas9 Screening of Kaposi's Sarcoma-Associated Herpesvirus-Transformed Cells Identifies XPO1 as a Vulnerable Target of Cancer Cells. <i>MBio</i> , 2019 , 10,	7.8	12
47	Construction of non-canonical PAM-targeting adenosine base editors by restriction enzyme-free DNA cloning using CRISPR-Cas9. <i>Scientific Reports</i> , 2019 , 9, 4939	4.9	21
46	Acquisition of seed dormancy breaking in rice (<i>Oryza sativa</i> L.) via CRISPR/Cas9-targeted mutagenesis of OsVP1 gene. <i>Plant Biotechnology Reports</i> , 2019 , 13, 511-520	2.5	10
45	CRISPR/Cas9-targeted mutagenesis of F3'H, DFR and LDOX, genes related to anthocyanin biosynthesis in black rice (<i>Oryza sativa</i> L.). <i>Plant Biotechnology Reports</i> , 2019 , 13, 521-531	2.5	16
44	Targeted cytochrome P450 3045C1 (CYP3045C1) gene mutation via CRISPR-Cas9 ribonucleoproteins in the marine rotifer <i>Brachionus koreanus</i> . <i>Hydrobiologia</i> , 2019 , 844, 117-128	2.4	4
43	Deletion of the chloroplast LTD protein impedes LHCl import and PSI-LHCl assembly in <i>Chlamydomonas reinhardtii</i> . <i>Journal of Experimental Botany</i> , 2018 , 69, 1147-1158	7	27
42	Cpf1-Database: web-based genome-wide guide RNA library design for gene knockout screens using CRISPR-Cpf1. <i>Bioinformatics</i> , 2018 , 34, 1077-1079	7.2	17
41	Response to "Unexpected mutations after CRISPR-Cas9 editing in vivo". <i>Nature Methods</i> , 2018 , 15, 239-240	4.6	22
40	Direct observation of DNA target searching and cleavage by CRISPR-Cas12a. <i>Nature Communications</i> , 2018 , 9, 2777	17.4	72
39	Photoautotrophic production of macular pigment in a <i>Chlamydomonas reinhardtii</i> strain generated by using DNA-free CRISPR-Cas9 RNP-mediated mutagenesis. <i>Biotechnology and Bioengineering</i> , 2018 , 115, 719-728	4.9	56
38	Web-based design and analysis tools for CRISPR base editing. <i>BMC Bioinformatics</i> , 2018 , 19, 542	3.6	70
37	Machine learning finds Cas9-edited genotypes. <i>Nature Biomedical Engineering</i> , 2018 , 2, 892-893	19	3
36	CRISPR/Cas9-mediated gene knockout screens and target identification via whole-genome sequencing uncover host genes required for picornavirus infection. <i>Journal of Biological Chemistry</i> , 2017 , 292, 10664-10671	5.4	27
35	Selective disruption of an oncogenic mutant allele by CRISPR/Cas9 induces efficient tumor regression. <i>Nucleic Acids Research</i> , 2017 , 45, 7897-7908	20.1	54
34	Digenome-seq web tool for profiling CRISPR specificity. <i>Nature Methods</i> , 2017 , 14, 548-549	21.6	18

33	ID3 regulates the MDC1-mediated DNA damage response in order to maintain genome stability. <i>Nature Communications</i> , 2017 , 8, 903	17.4	14
32	Increased PKM β activity impedes lateral movement of GluA2-containing AMPA receptors. <i>Molecular Brain</i> , 2017 , 10, 56	4.5	13
31	CUT-PCR: CRISPR-mediated, ultrasensitive detection of target DNA using PCR. <i>Oncogene</i> , 2017 , 36, 6823-6829	9.8	55
30	Cas-analyzer: an online tool for assessing genome editing results using NGS data. <i>Bioinformatics</i> , 2017 , 33, 286-288	7.2	198
29	DNA-free Genome Editing of Using CRISPR and Subsequent Mutant Analysis. <i>Bio-protocol</i> , 2017 , 7, e2352.9	2.9	3
28	A novel method for high-frequency genome editing in rice, using the CRISPR/Cas9 system. <i>Journal of Plant Biotechnology</i> , 2017 , 44, 89-96	0.6	4
27	Sensitive Surface Enhanced Raman Scattering-Based Detection of a BIGH3 Point Mutation Associated with Avellino Corneal Dystrophy. <i>Analytical Chemistry</i> , 2016 , 88, 11288-11292	7.8	6
26	DNA-free two-gene knockout in <i>Chlamydomonas reinhardtii</i> via CRISPR-Cas9 ribonucleoproteins. <i>Scientific Reports</i> , 2016 , 6, 30620	4.9	188
25	Structural roles of guide RNAs in the nuclease activity of Cas9 endonuclease. <i>Nature Communications</i> , 2016 , 7, 13350	17.4	68
24	Site-directed mutagenesis in <i>Petunia hybrida</i> protoplast system using direct delivery of purified recombinant Cas9 ribonucleoproteins. <i>Plant Cell Reports</i> , 2016 , 35, 1535-44	5.1	131
23	Cas-Database: web-based genome-wide guide RNA library design for gene knockout screens using CRISPR-Cas9. <i>Bioinformatics</i> , 2016 , 32, 2017-23	7.2	28
22	SIRT1-mediated downregulation of p27Kip1 is essential for overcoming contact inhibition of Kaposi's sarcoma-associated herpesvirus transformed cells. <i>Oncotarget</i> , 2016 , 7, 75698-75711	3.3	12
21	Structural and dynamic views of the CRISPR-Cas system at the single-molecule level. <i>BMB Reports</i> , 2016 , 49, 201-7	5.5	4
20	Single-Molecule FRET Combined with Magnetic Tweezers at Low Force Regime. <i>Bulletin of the Korean Chemical Society</i> , 2016 , 37, 408-410	1.2	2
19	Targeted genome editing, an alternative tool for trait improvement in horticultural crops. <i>Horticulture Environment and Biotechnology</i> , 2016 , 57, 531-543	2	11
18	Target-directed gene-editing approach for developing a new horticultural crop. <i>Acta Horticulturae</i> , 2016 , 289-294	0.3	
17	Functional Correction of Large Factor VIII Gene Chromosomal Inversions in Hemophilia A Patient-Derived iPSCs Using CRISPR-Cas9. <i>Cell Stem Cell</i> , 2015 , 17, 213-20	18	214
16	Cas-Designer: a web-based tool for choice of CRISPR-Cas9 target sites. <i>Bioinformatics</i> , 2015 , 31, 4014-6	7.2	149

15	Digenome-seq: genome-wide profiling of CRISPR-Cas9 off-target effects in human cells. <i>Nature Methods</i> , 2015 , 12, 237-43, 1 p following 243	21.6	652
14	Cas-OFFinder: a fast and versatile algorithm that searches for potential off-target sites of Cas9 RNA-guided endonucleases. <i>Bioinformatics</i> , 2014 , 30, 1473-5	7.2	1015
13	Distinct Z-DNA binding mode of a PKR-like protein kinase containing a Z-DNA binding domain (PKZ). <i>Nucleic Acids Research</i> , 2014 , 42, 5937-48	20.1	40
12	Analysis of off-target effects of CRISPR/Cas-derived RNA-guided endonucleases and nickases. <i>Genome Research</i> , 2014 , 24, 132-41	9.7	966
11	Microhomology-based choice of Cas9 nuclease target sites. <i>Nature Methods</i> , 2014 , 11, 705-6	21.6	258
10	Z-DNA stabilization is dominated by the Hofmeister effect. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 15829-32	3.6	10
9	Energetics of Z-DNA binding protein-mediated helicity reversals in DNA, RNA, and DNA-RNA duplexes. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 13866-71	3.4	8
8	Structure-based elucidation of the regulatory mechanism for aminopeptidase activity. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2013 , 69, 1738-47		4
7	Autofocusing system based on optical astigmatism analysis of single-molecule images. <i>Optics Express</i> , 2012 , 20, 29353-60	3.3	13
6	Intrinsic Z-DNA is stabilized by the conformational selection mechanism of Z-DNA-binding proteins. <i>Journal of the American Chemical Society</i> , 2011 , 133, 668-71	16.4	76
5	Questioning unexpected CRISPR off-target mutations in vivo		5
4	Ex vivo therapeutic base and prime editing using chemically derived hepatic progenitors in a mouse model of tyrosinemia type 1		1
3	Web-based design and analysis tools for CRISPR base editing		2
2	Comprehensive analysis of prime editing outcomes in human embryonic stem cells		1
1	Therapeutic adenine base editing corrects nonsense mutation and improves visual function in a mouse model of Leber congenital amaurosis		3