

# High-frequency off-target mutagenesis induced by CRISPR

Nature Biotechnology

31, 822-826

DOI: [10.1038/nbt.2623](https://doi.org/10.1038/nbt.2623)

Citation Report

#	ARTICLE	IF	CITATIONS
2	Phospholipase C $\beta$ 3 Regulates RhoA/Rho Kinase Signaling and Neurite Outgrowth. <i>Journal of Biological Chemistry</i> , 2011, 286, 8459-8471.	1.6	36
3	Low Cholesterol Triggers Membrane Microdomain-dependent CD44 Shedding and Suppresses Tumor Cell Migration. <i>Journal of Biological Chemistry</i> , 2011, 286, 1999-2007.	1.6	144
4	Missing the target?. <i>Nature Methods</i> , 2013, 10, 701-701.	9.0	0
5	Inactivation of Hepatitis B Virus Replication in Cultured Cells and In Vivo with Engineered Transcription Activator-Like Effector Nucleases. <i>Molecular Therapy</i> , 2013, 21, 1889-1897.	3.7	191
6	CRISPR-Mediated Modular RNA-Guided Regulation of Transcription in Eukaryotes. <i>Cell</i> , 2013, 154, 442-451.	13.5	3,012
7	Targeted mutagenesis in the model plant <i>Nicotiana benthamiana</i> using Cas9 RNA-guided endonuclease. <i>Nature Biotechnology</i> , 2013, 31, 691-693.	9.4	951
8	Targeted genome modification of crop plants using a CRISPR-Cas system. <i>Nature Biotechnology</i> , 2013, 31, 686-688.	9.4	1,657
9	Heritable gene targeting in the mouse and rat using a CRISPR-Cas system. <i>Nature Biotechnology</i> , 2013, 31, 681-683.	9.4	618
10	Engineering subtle targeted mutations into the mouse genome. <i>Genesis</i> , 2013, 51, 605-618.	0.8	38
11	CRISPR RNA-guided activation of endogenous human genes. <i>Nature Methods</i> , 2013, 10, 977-979.	9.0	996
12	One-Step Generation of Mice Carrying Reporter and Conditional Alleles by CRISPR/Cas-Mediated Genome Engineering. <i>Cell</i> , 2013, 154, 1370-1379.	13.5	1,442
13	Double Nicking by RNA-Guided CRISPR Cas9 for Enhanced Genome Editing Specificity. <i>Cell</i> , 2013, 154, 1380-1389.	13.5	2,862
14	Engineering the <i>Caenorhabditis elegans</i> genome using Cas9-triggered homologous recombination. <i>Nature Methods</i> , 2013, 10, 1028-1034.	9.0	905
15	Tunable and Multifunctional Eukaryotic Transcription Factors Based on CRISPR/Cas. <i>ACS Synthetic Biology</i> , 2013, 2, 604-613.	1.9	315
16	Toll-like receptor 4 (Tlr4) knockout rats produced by transcriptional activator-like effector nuclease (TALEN)-mediated gene inactivation. <i>Alcohol</i> , 2013, 47, 595-599.	0.8	33
17	Generation of mutant mice by pronuclear injection of circular plasmid expressing Cas9 and single guided RNA. <i>Scientific Reports</i> , 2013, 3, 3355.	1.6	370
18	Generalized bacterial genome editing using mobile group II introns and Cre-lox. <i>Molecular Systems Biology</i> , 2013, 9, 685.	3.2	70
19	Genome engineering using the CRISPR-Cas9 system. <i>Nature Protocols</i> , 2013, 8, 2281-2308.	5.5	9,114

#	ARTICLE	IF	CITATIONS
20	New and TALEnted Genome Engineering Toolbox. <i>Circulation Research</i> , 2013, 113, 571-587.	2.0	48
21	Generation of targeted mouse mutants by embryo microinjection of TALEN mRNA. <i>Nature Protocols</i> , 2013, 8, 2355-2379.	5.5	57
22	RNA-Guided Genome Editing in Plants Using a CRISPR-Cas System. <i>Molecular Plant</i> , 2013, 6, 1975-1983.	3.9	678
23	RNA-dependent DNA endonuclease Cas9 of the CRISPR system: Holy Grail of genome editing?. <i>Trends in Microbiology</i> , 2013, 21, 562-567.	3.5	61
24	Repurposing CRISPR/Cas9 for in situ functional assays. <i>Genes and Development</i> , 2013, 27, 2602-2614.	2.7	110
25	Accelerated homologous recombination and subsequent genome modification in <i>Drosophila</i> . <i>Development (Cambridge)</i> , 2013, 140, 4818-4825.	1.2	179
26	RNA-Guided Nucleases: A New Era for Engineering the Genomes of Model and Nonmodel Organisms. <i>Genetics</i> , 2013, 195, 303-308.	1.2	16
27	A variant CRISPR-Cas9 system adds versatility to genome engineering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 15514-15515.	3.3	38
28	Efficient multiplex biallelic zebrafish genome editing using a CRISPR nuclease system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13904-13909.	3.3	1,152
29	Seamless genome editing in human pluripotent stem cells using custom endonuclease-based gene targeting and the piggyBac transposon. <i>Nature Protocols</i> , 2013, 8, 2061-2078.	5.5	80
30	Correction of a Genetic Disease in Mouse via Use of CRISPR-Cas9. <i>Cell Stem Cell</i> , 2013, 13, 659-662.	5.2	541
31	Advances in genetic circuit design: novel biochemistries, deep part mining, and precision gene expression. <i>Current Opinion in Chemical Biology</i> , 2013, 17, 878-892.	2.8	125
32	Plant genome editing made easy: targeted mutagenesis in model and crop plants using the CRISPR/Cas system. <i>Plant Methods</i> , 2013, 9, 39.	1.9	515
33	Demonstration of CRISPR/Cas9/sgRNA-mediated targeted gene modification in Arabidopsis, tobacco, sorghum and rice. <i>Nucleic Acids Research</i> , 2013, 41, e188-e188.	6.5	1,066
34	Staying on target with CRISPR-Cas. <i>Nature Biotechnology</i> , 2013, 31, 807-809.	9.4	55
35	Cages from coils. <i>Nature Biotechnology</i> , 2013, 31, 809-810.	9.4	9
36	Male-sterile maize plants produced by targeted mutagenesis of the cytochrome <i>P450</i> like gene ( <i>MS26</i> ) using a re-designed <i>Ccr1</i> homing endonuclease. <i>Plant Journal</i> , 2013, 76, 888-899.	2.8	120
37	Cas9 as a versatile tool for engineering biology. <i>Nature Methods</i> , 2013, 10, 957-963.	9.0	1,073

#	ARTICLE	IF	CITATIONS
38	Transgene-Free Genome Editing in <i>Caenorhabditis elegans</i> Using CRISPR-Cas. <i>Genetics</i> , 2013, 195, 1167-1171.	1.2	102
39	Highly Improved Gene Targeting by Germline-Specific Cas9 Expression in <i>Drosophila</i> . <i>Genetics</i> , 2013, 195, 715-721.	1.2	529
40	RNA-Guided Genome Editing for Target Gene Mutations in Wheat. <i>G3: Genes, Genomes, Genetics</i> , 2013, 3, 2233-2238.	0.8	385
41	Optimized gene editing technology for <i>Drosophila melanogaster</i> using germ line-specific Cas9. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 19012-19017.	3.3	365
42	Toward pluripotency by reprogramming: mechanisms and application. <i>Protein and Cell</i> , 2013, 4, 820-832.	4.8	21
43	Flowing through the CRISPR-CAScade: Will genome editing boost cell therapies?. <i>Molecular and Cellular Therapies</i> , 2013, 1, 3.	0.2	2
44	Targeted Heritable Mutation and Gene Conversion by Cas9-CRISPR in <i>Caenorhabditis elegans</i> . <i>Genetics</i> , 2013, 195, 1173-1176.	1.2	95
45	Comparing Zinc Finger Nucleases and Transcription Activator-Like Effector Nucleases for Gene Targeting in <i>Drosophila</i> . <i>G3: Genes, Genomes, Genetics</i> , 2013, 3, 1717-1725.	0.8	61
46	Moderate and high amounts of tamoxifen in $\pm$ -MHC-MerCreMer mice induce a DNA damage response, leading to heart failure and death. <i>DMM Disease Models and Mechanisms</i> , 2013, 6, 1459-69.	1.2	120
47	Optimizing Delivery and Expression of Designer Nucleases for Genome Engineering. <i>Human Gene Therapy Methods</i> , 2013, 24, 329-332.	2.1	5
48	Generation of an ICF Syndrome Model by Efficient Genome Editing of Human Induced Pluripotent Stem Cells Using the CRISPR System. <i>International Journal of Molecular Sciences</i> , 2013, 14, 19774-19781.	1.8	100
49	Newer Gene Editing Technologies toward HIV Gene Therapy. <i>Viruses</i> , 2013, 5, 2748-2766.	1.5	71
50	A Guide RNA Sequence Design Platform for the CRISPR/Cas9 System for Model Organism Genomes. <i>BioMed Research International</i> , 2013, 2013, 1-4.	0.9	62
51	Back to the future: how human induced pluripotent stem cells will transform regenerative medicine. <i>Human Molecular Genetics</i> , 2013, 22, R32-R38.	1.4	39
52	A CRISPR CASE for high-throughput silencing. <i>Frontiers in Genetics</i> , 2013, 4, 193.	1.1	36
53	Efficient genome engineering in human pluripotent stem cells using Cas9 from <i>Neisseria meningitidis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 15644-15649.	3.3	612
54	Biallelic genome modification in <i>Xenopus tropicalis</i> embryos using the CRISPR/Cas system. <i>Genesis</i> , 2013, 51, 827-834.	0.8	182
55	CRISPR/Cas9-mediated genome engineering and the promise of designer flies on demand. <i>Fly</i> , 2013, 7, 249-255.	0.9	100

#	ARTICLE	IF	CITATIONS
56	CRISPR/Cas9 systems targeting $\beta$ -globin and CCR5 genes have substantial off-target activity. <i>Nucleic Acids Research</i> , 2013, 41, 9584-9592.	6.5	544
57	Efficient generation of large-scale genome-modified mice using gRNA and CAS9 endonuclease. <i>Nucleic Acids Research</i> , 2013, 41, e187-e187.	6.5	197
58	Crisper results for CRISPR. <i>Science-Business EXchange</i> , 2013, 6, 950-950.	0.0	0
59	Sculpting genomes with a hammer and chisel. <i>Nature Methods</i> , 2013, 10, 839-840.	9.0	4
60	Rapid Assembly of Customized TALENs into Multiple Delivery Systems. <i>PLoS ONE</i> , 2013, 8, e80281.	1.1	15
61	A Hypothesis for Regenerative Therapy for Neuronal Disease: Stem Cells within Artificial Niche. <i>Current Signal Transduction Therapy</i> , 2014, 9, 38-43.	0.3	0
62	Heritable Multiplex Genetic Engineering in Rats Using CRISPR/Cas9. <i>PLoS ONE</i> , 2014, 9, e89413.	1.1	90
63	AAV-Mediated Delivery of Zinc Finger Nucleases Targeting Hepatitis B Virus Inhibits Active Replication. <i>PLoS ONE</i> , 2014, 9, e97579.	1.1	95
64	CRISPR/Cas-Mediated Targeted Mutagenesis in <i>Daphnia magna</i> . <i>PLoS ONE</i> , 2014, 9, e98363.	1.1	101
65	sgRNAs9: A Software Package for Designing CRISPR sgRNA and Evaluating Potential Off-Target Cleavage Sites. <i>PLoS ONE</i> , 2014, 9, e100448.	1.1	327
66	CRISPRseek: A Bioconductor Package to Identify Target-Specific Guide RNAs for CRISPR-Cas9 Genome-Editing Systems. <i>PLoS ONE</i> , 2014, 9, e108424.	1.1	169
67	Protospacer Adjacent Motif (PAM)-Distal Sequences Engage CRISPR Cas9 DNA Target Cleavage. <i>PLoS ONE</i> , 2014, 9, e109213.	1.1	94
68	Improved Genome Editing in Human Cell Lines Using the CRISPR Method. <i>PLoS ONE</i> , 2014, 9, e109752.	1.1	48
69	Evaluation of sgRNA Target Sites for CRISPR-Mediated Repression of TP53. <i>PLoS ONE</i> , 2014, 9, e113232.	1.1	53
71	Enhanced homology-directed human genome engineering by controlled timing of CRISPR/Cas9 delivery. <i>ELife</i> , 2014, 3, e04766.	2.8	968
72	Disruption of HPV16-E7 by CRISPR/Cas System Induces Apoptosis and Growth Inhibition in HPV16 Positive Human Cervical Cancer Cells. <i>BioMed Research International</i> , 2014, 2014, 1-9.	0.9	150
73	Concerning RNA-guided gene drives for the alteration of wild populations. <i>ELife</i> , 2014, 3, .	2.8	653
74	Tipping Points in Seaweed Genetic Engineering: Scaling Up Opportunities in the Next Decade. <i>Marine Drugs</i> , 2014, 12, 3025-3045.	2.2	21

#	ARTICLE	IF	CITATIONS
76	Every Silver Lining has a Cloud: The Scientific and Animal Welfare Issues Surrounding a New Approach to the Production of Transgenic Animals. <i>ATLA Alternatives To Laboratory Animals</i> , 2014, 42, 137-145.	0.7	10
77	Solving the puzzle of Parkinson's disease using induced pluripotent stem cells. <i>Experimental Biology and Medicine</i> , 2014, 239, 1421-1432.	1.1	16
79	Landscape of target:guide homology effects on Cas9-mediated cleavage. <i>Nucleic Acids Research</i> , 2014, 42, 13778-13787.	6.5	65
80	Effective gene targeting in rabbits using RNA-guided Cas9 nucleases. <i>Journal of Molecular Cell Biology</i> , 2014, 6, 97-99.	1.5	143
81	Redesign of extensive protein-DNA interfaces of meganucleases using iterative cycles of in vitro compartmentalization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4061-4066.	3.3	51
82	MAGECK enables robust identification of essential genes from genome-scale CRISPR/Cas9 knockout screens. <i>Genome Biology</i> , 2014, 15, 554.	3.8	1,614
83	A CRISPR-based approach for proteomic analysis of a single genomic locus. <i>Epigenetics</i> , 2014, 9, 1207-1211.	1.3	71
84	Efficient and Heritable Gene Targeting in Tilapia by CRISPR/Cas9. <i>Genetics</i> , 2014, 197, 591-599.	1.2	191
85	Allele-specific genome editing and correction of disease-associated phenotypes in rats using the CRISPR-Cas platform. <i>Nature Communications</i> , 2014, 5, 4240.	5.8	169
86	Targeting Hepatitis B Virus With CRISPR/Cas9. <i>Molecular Therapy - Nucleic Acids</i> , 2014, 3, e216.	2.3	240
87	Optimized CRISPR/Cas tools for efficient germline and somatic genome engineering in <i>Drosophila</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E2967-76.	3.3	947
89	COSMID: A Web-based Tool for Identifying and Validating CRISPR/Cas Off-target Sites. <i>Molecular Therapy - Nucleic Acids</i> , 2014, 3, e214.	2.3	315
90	The CRISPR/Cas9 System Facilitates Clearance of the Intrahepatic HBV Templates In Vivo. <i>Molecular Therapy - Nucleic Acids</i> , 2014, 3, e186.	2.3	319
91	3.4 Rational Approaches for Transgene Expression: Targeted Integration and Episomal Maintenance. , 2014, , 173-215.		2
92	SSFinder: High Throughput CRISPR-Cas Target Sites Prediction Tool. <i>BioMed Research International</i> , 2014, 2014, 1-4.	0.9	42
93	High-Efficiency Targeted Editing of Large Viral Genomes by RNA-Guided Nucleases. <i>PLoS Pathogens</i> , 2014, 10, e1004090.	2.1	136
94	Genetic Manipulation of the <i>Toxoplasma gondii</i> Genome by Fosmid Recombineering. <i>MBio</i> , 2014, 5, e02021.	1.8	13
95	High-efficiency genome editing via 2A-coupled co-expression of fluorescent proteins and zinc finger nucleases or CRISPR/Cas9 nickase pairs. <i>Nucleic Acids Research</i> , 2014, 42, e84-e84.	6.5	71

#	ARTICLE	IF	CITATIONS
96	Simultaneous Gene Editing by Injection of mRNAs Encoding Transcription Activator-Like Effector Nucleases into Mouse Zygotes. <i>Molecular and Cellular Biology</i> , 2014, 34, 1649-1658.	1.1	26
97	Single-cell analyses of regulatory network perturbations using enhancer-targeting TALEs suggest novel roles for <i>PU.1</i> during haematopoietic specification. <i>Development (Cambridge)</i> , 2014, 141, 4018-4030.	1.2	26
98	Performance of the Cas9 Nickase System in <i>Drosophila melanogaster</i> . <i>G3: Genes, Genomes, Genetics</i> , 2014, 4, 1955-1962.	0.8	41
99	CRISPR-Cas: an efficient tool for genome engineering of virulent bacteriophages. <i>Nucleic Acids Research</i> , 2014, 42, 9504-9513.	6.5	131
100	CRISPR/Cas9 systems have off-target activity with insertions or deletions between target DNA and guide RNA sequences. <i>Nucleic Acids Research</i> , 2014, 42, 7473-7485.	6.5	548
101	Highly Specific and Efficient CRISPR/Cas9-Catalyzed Homology-Directed Repair in <i>Drosophila</i> . <i>Genetics</i> , 2014, 196, 961-971.	1.2	864
102	Targeted Mutagenesis of the Tomato <i>PROCERA</i> Gene Using Transcription Activator-Like Effector Nucleases. <i>Plant Physiology</i> , 2014, 166, 1288-1291.	2.3	133
103	Rapid target gene validation in complex cancer mouse models using rederived embryonic stem cells. <i>EMBO Molecular Medicine</i> , 2014, 6, 212-225.	3.3	78
104	Translating human genetics into mouse: The impact of ultra-rapid <i>in vivo</i> genome editing. <i>Development Growth and Differentiation</i> , 2014, 56, 34-45.	0.6	32
105	Targeted mutagenesis using CRISPR/Cas system in medaka. <i>Biology Open</i> , 2014, 3, 362-371.	0.6	197
106	Mutagenesis and phenotyping resources in zebrafish for studying development and human disease. <i>Briefings in Functional Genomics</i> , 2014, 13, 82-94.	1.3	39
107	Reproducibility of Results in Preclinical Studies: A Perspective From the Bone Field. <i>Journal of Bone and Mineral Research</i> , 2014, 29, 2131-2140.	3.1	39
108	The new frontier of genome engineering with CRISPR-Cas9. <i>Science</i> , 2014, 346, 1258096.	6.0	4,828
109	Targeted and genome-wide sequencing reveal single nucleotide variations impacting specificity of Cas9 in human stem cells. <i>Nature Communications</i> , 2014, 5, 5507.	5.8	128
110	Tagging Endogenous Loci for Live-Cell Fluorescence Imaging and Molecule Counting Using ZFNs, TALENs, and Cas9. <i>Methods in Enzymology</i> , 2014, 546, 139-160.	0.4	32
111	Nuclease-mediated genome editing: At the front-line of functional genomics technology. <i>Development Growth and Differentiation</i> , 2014, 56, 2-13.	0.6	60
112	Cas9-Based Genome Editing in <i>Drosophila</i> . <i>Methods in Enzymology</i> , 2014, 546, 415-439.	0.4	41
113	Cas9-Based Genome Editing in Zebrafish. <i>Methods in Enzymology</i> , 2014, 546, 377-413.	0.4	41

#	ARTICLE	IF	CITATIONS
114	Enhanced Specificity and Efficiency of the CRISPR/Cas9 System with Optimized sgRNA Parameters in <i>Drosophila</i> . <i>Cell Reports</i> , 2014, 9, 1151-1162.	2.9	284
115	Determining the Specificities of TALENs, Cas9, and Other Genome-Editing Enzymes. <i>Methods in Enzymology</i> , 2014, 546, 47-78.	0.4	59
116	Targeted Genome Editing in Human Cells Using CRISPR/Cas Nucleases and Truncated Guide RNAs. <i>Methods in Enzymology</i> , 2014, 546, 21-45.	0.4	43
117	In Vitro Enzymology of Cas9. <i>Methods in Enzymology</i> , 2014, 546, 1-20.	0.4	97
118	Expanding the zinc-finger recombinase repertoire: directed evolution and mutational analysis of serine recombinase specificity determinants. <i>Nucleic Acids Research</i> , 2014, 42, 4755-4766.	6.5	20
119	Recent progress in genome engineering techniques in the silkworm, <i>Bombyx mori</i> . <i>Development Growth and Differentiation</i> , 2014, 56, 14-25.	0.6	89
120	Adapting CRISPR/Cas9 for Functional Genomics Screens. <i>Methods in Enzymology</i> , 2014, 546, 193-213.	0.4	17
121	Biotherapies of neuromuscular disorders. <i>Revue Neurologique</i> , 2014, 170, 799-807.	0.6	0
122	Transgene-Free Genome Editing by Germline Injection of CRISPR/Cas RNA. <i>Methods in Enzymology</i> , 2014, 546, 441-457.	0.4	6
123	Multi-input CRISPR/Cas genetic circuits that interface host regulatory networks. <i>Molecular Systems Biology</i> , 2014, 10, 763.	3.2	213
124	Functional genetics for all: engineered nucleases, CRISPR and the gene editing revolution. <i>EvoDevo</i> , 2014, 5, 43.	1.3	85
125	Generation of multi-gene knockout rabbits using the Cas9/gRNA system. <i>Cell Regeneration</i> , 2014, 3, 3:12.	1.1	81
126	TALENs Mediate Efficient and Heritable Mutation of Endogenous Genes in the Marine Annelid <i>Platynereis dumerilii</i> . <i>Genetics</i> , 2014, 197, 77-89.	1.2	52
127	Genome engineering using the CRISPR/Cas system. <i>World Journal of Medical Genetics</i> , 2014, 4, 69.	1.0	10
128	Generation of Genomic Deletions in Mammalian Cell Lines via CRISPR/Cas9. <i>Journal of Visualized Experiments</i> , 2015, , e52118.	0.2	123
129	Gene Editing. , 2014, , 229-248.		9
130	Production of Transgenic Rabbits. , 2014, , 275-304.		1
131	An online bioinformatics tool predicts zinc finger and TALE nuclease off-target cleavage. <i>Nucleic Acids Research</i> , 2014, 42, e42-e42.	6.5	109



#	ARTICLE	IF	CITATIONS
132	TALENs facilitate targeted genome editing in human cells with high specificity and low cytotoxicity. <i>Nucleic Acids Research</i> , 2014, 42, 6762-6773.	6.5	165
133	Stem cells for investigation and treatment of inherited retinal disease. <i>Human Molecular Genetics</i> , 2014, 23, R9-R16.	1.4	59
134	Nucleases for genome editing in crops. <i>Biocatalysis and Agricultural Biotechnology</i> , 2014, 3, 14-19.	1.5	10
135	TALEN-mediated <i>Drosophila</i> genome editing: Protocols and applications. <i>Methods</i> , 2014, 69, 22-31.	1.9	10
136	Plant genome engineering in full bloom. <i>Trends in Plant Science</i> , 2014, 19, 284-287.	4.3	83
137	Zebrafish approaches enhance the translational research tackle box. <i>Translational Research</i> , 2014, 163, 65-78.	2.2	40
138	Efficient generation of genome-modified mice via offset-nicking by CRISPR/Cas system. <i>Biochemical and Biophysical Research Communications</i> , 2014, 445, 791-794.	1.0	60
139	Genome editing with Cas9 in adult mice corrects a disease mutation and phenotype. <i>Nature Biotechnology</i> , 2014, 32, 551-553.	9.4	823
140	Crystal Structure of Cas9 in Complex with Guide RNA and Target DNA. <i>Cell</i> , 2014, 156, 935-949.	13.5	1,690
141	Genome Engineering with Targetable Nucleases. <i>Annual Review of Biochemistry</i> , 2014, 83, 409-439.	5.0	472
142	Gene editing at CRISPR speed. <i>Nature Biotechnology</i> , 2014, 32, 309-312.	9.4	37
143	A TALEN-based strategy for efficient bi-allelic miRNA ablation in human cells. <i>Rna</i> , 2014, 20, 948-955.	1.6	21
144	Engineering the <i>Caenorhabditis elegans</i> genome with CRISPR/Cas9. <i>Methods</i> , 2014, 68, 381-388.	1.9	49
145	Isolation of single-base genome-edited human iPS cells without antibiotic selection. <i>Nature Methods</i> , 2014, 11, 291-293.	9.0	243
146	Feasibility for a large scale mouse mutagenesis by injecting CRISPR/Cas plasmid into zygotes. <i>Development Growth and Differentiation</i> , 2014, 56, 122-129.	0.6	75
147	Precision genetic modifications: a new era in molecular biology and crop improvement. <i>Planta</i> , 2014, 239, 921-939.	1.6	48
148	CRISPR-based technologies: prokaryotic defense weapons repurposed. <i>Trends in Genetics</i> , 2014, 30, 111-118.	2.9	92
149	An efficient TALEN mutagenesis system in rice. <i>Methods</i> , 2014, 69, 2-8.	1.9	23

#	ARTICLE	IF	CITATIONS
150	CRISPR-Cas systems for editing, regulating and targeting genomes. <i>Nature Biotechnology</i> , 2014, 32, 347-355.	9.4	2,648
151	A guide to genome engineering with programmable nucleases. <i>Nature Reviews Genetics</i> , 2014, 15, 321-334.	7.7	990
152	Nanomedicine: Tiny Particles and Machines Give Huge Gains. <i>Annals of Biomedical Engineering</i> , 2014, 42, 243-259.	1.3	26
153	Biotechnological applications of mobile group II introns and their reverse transcriptases: gene targeting, RNA-seq, and non-coding RNA analysis. <i>Mobile DNA</i> , 2014, 5, 2.	1.3	66
154	CRISPR/Cas9 for genome editing: progress, implications and challenges. <i>Human Molecular Genetics</i> , 2014, 23, R40-R46.	1.4	487
155	CRISPR-Cas system: a powerful tool for genome engineering. <i>Plant Molecular Biology</i> , 2014, 85, 209-218.	2.0	51
156	From dead leaf, to new life: TAL effectors as tools for synthetic biology. <i>Plant Journal</i> , 2014, 78, 753-771.	2.8	48
157	Efficient genome modification by CRISPR-Cas9 nickase with minimal off-target effects. <i>Nature Methods</i> , 2014, 11, 399-402.	9.0	716
158	Genome-wide binding of the CRISPR endonuclease Cas9 in mammalian cells. <i>Nature Biotechnology</i> , 2014, 32, 670-676.	9.4	829
159	Fusion of catalytically inactive Cas9 to FokI nuclease improves the specificity of genome modification. <i>Nature Biotechnology</i> , 2014, 32, 577-582.	9.4	740
160	Dimeric CRISPR RNA-guided FokI nucleases for highly specific genome editing. <i>Nature Biotechnology</i> , 2014, 32, 569-576.	9.4	852
161	CRISPR-Cas Systems: Prokaryotes Upgrade to Adaptive Immunity. <i>Molecular Cell</i> , 2014, 54, 234-244.	4.5	633
162	Generation of improved humanized mouse models for human infectious diseases. <i>Journal of Immunological Methods</i> , 2014, 410, 3-17.	0.6	124
163	Multigeneration analysis reveals the inheritance, specificity, and patterns of CRISPR/Cas-induced gene modifications in <i>Arabidopsis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4632-4637.	3.3	669
164	Methods for targeted mutagenesis in zebrafish using TALENs. <i>Methods</i> , 2014, 69, 76-84.	1.9	30
165	CRISPR transcriptional repression devices and layered circuits in mammalian cells. <i>Nature Methods</i> , 2014, 11, 723-726.	9.0	280
166	Genome-wide analysis reveals characteristics of off-target sites bound by the Cas9 endonuclease. <i>Nature Biotechnology</i> , 2014, 32, 677-683.	9.4	682
167	Gene targeting technologies in rats: Zinc finger nucleases, transcription activator-like effector nucleases, and clustered regularly interspaced short palindromic repeats. <i>Development Growth and Differentiation</i> , 2014, 56, 46-52.	0.6	54

#	ARTICLE	IF	CITATIONS
168	Endonucleases: new tools to edit the mouse genome. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014, 1842, 1942-1950.	1.8	56
169	Programmable Removal of Bacterial Strains by Use of Genome-Targeting CRISPR-Cas Systems. <i>MBio</i> , 2014, 5, e00928-13.	1.8	315
170	Cas-OFFinder: a fast and versatile algorithm that searches for potential off-target sites of Cas9 RNA-guided endonucleases. <i>Bioinformatics</i> , 2014, 30, 1473-1475.	1.8	1,651
171	Highly efficient targeted mutagenesis in axolotl using Cas9 RNA-guided nuclease. <i>Development (Cambridge)</i> , 2014, 141, 2165-2171.	1.2	95
172	Accelerating genome editing in CHO cells using CRISPR Cas9 and CRISPy, a web-based target finding tool. <i>Biotechnology and Bioengineering</i> , 2014, 111, 1604-1616.	1.7	167
173	Targeted Mutagenesis in Zea mays Using TALENs and the CRISPR/Cas System. <i>Journal of Genetics and Genomics</i> , 2014, 41, 63-68.	1.7	567
174	TALE: A tale of genome editing. <i>Progress in Biophysics and Molecular Biology</i> , 2014, 114, 25-32.	1.4	30
175	Synthetic nucleases for genome engineering in plants: prospects for a bright future. <i>Plant Journal</i> , 2014, 78, 727-741.	2.8	236
176	Stable RNA interference rules for silencing. <i>Nature Cell Biology</i> , 2014, 16, 10-18.	4.6	153
177	Efficient genome engineering by targeted homologous recombination in mouse embryos using transcription activator-like effector nucleases. <i>Nature Communications</i> , 2014, 5, 3045.	5.8	39
178	Targeted genome engineering techniques in Drosophila. <i>Methods</i> , 2014, 68, 29-37.	1.9	64
179	Improving CRISPR-Cas nuclease specificity using truncated guide RNAs. <i>Nature Biotechnology</i> , 2014, 32, 279-284.	9.4	1,706
180	DNA interrogation by the CRISPR RNA-guided endonuclease Cas9. <i>Nature</i> , 2014, 507, 62-67.	18.7	1,573
181	Generation of Gene-Modified Cynomolgus Monkey via Cas9/RNA-Mediated Gene Targeting in One-Cell Embryos. <i>Cell</i> , 2014, 156, 836-843.	13.5	930
182	Genetic Screens in Human Cells Using the CRISPR-Cas9 System. <i>Science</i> , 2014, 343, 80-84.	6.0	2,414
183	CasOT: a genome-wide Cas9/gRNA off-target searching tool. <i>Bioinformatics</i> , 2014, 30, 1180-1182.	1.8	312
184	Cas9-Based Tools for Targeted Genome Editing and Transcriptional Control. <i>Applied and Environmental Microbiology</i> , 2014, 80, 1544-1552.	1.4	59
185	Genome-wide recessive genetic screening in mammalian cells with a lentiviral CRISPR-guide RNA library. <i>Nature Biotechnology</i> , 2014, 32, 267-273.	9.4	943

#	ARTICLE	IF	CITATIONS
186	Efficient RNA/Cas9-mediated genome editing in <i>Xenopus tropicalis</i> . <i>Development (Cambridge)</i> , 2014, 141, 707-714.	1.2	148
187	Synthetic biology in mammalian cells: next generation research tools and therapeutics. <i>Nature Reviews Molecular Cell Biology</i> , 2014, 15, 95-107.	16.1	246
188	Highly efficient CRISPR/Cas9-mediated knock-in in zebrafish by homology-independent DNA repair. <i>Genome Research</i> , 2014, 24, 142-153.	2.4	552
189	Genetically Engineered Humanized Mouse Models for Preclinical Antibody Studies. <i>BioDrugs</i> , 2014, 28, 171-180.	2.2	14
190	Highly efficient gene knockout in mice and zebrafish with RNA-guided endonucleases. <i>Genome Research</i> , 2014, 24, 125-131.	2.4	249
191	Megabase-scale deletion using CRISPR/Cas9 to generate a fully haploid human cell line. <i>Genome Research</i> , 2014, 24, 2059-2065.	2.4	238
192	Resources for Functional Genomics Studies in <i>Drosophila melanogaster</i> . <i>Genetics</i> , 2014, 197, 1-18.	1.2	61
193	Genetic and Genomic Tools for the Marine Annelid <i>Platynereis dumerilii</i> . <i>Genetics</i> , 2014, 197, 19-31.	1.2	63
194	Efficient Ablation of Genes in Human Hematopoietic Stem and Effector Cells using CRISPR/Cas9. <i>Cell Stem Cell</i> , 2014, 15, 643-652.	5.2	406
195	Microhomology-mediated end-joining-dependent integration of donor DNA in cells and animals using TALENs and CRISPR/Cas9. <i>Nature Communications</i> , 2014, 5, 5560.	5.8	414
196	CRISPR/Cas9-mediated gene knockout in the ascidian <i>Ciona intestinalis</i> . <i>Development Growth and Differentiation</i> , 2014, 56, 499-510.	0.6	71
197	Cas9-Based Genome Editing in <i>Xenopus tropicalis</i> . <i>Methods in Enzymology</i> , 2014, 546, 355-375.	0.4	96
198	Genome Editing in Human Stem Cells. <i>Methods in Enzymology</i> , 2014, 546, 119-138.	0.4	81
199	Rapid modelling of cooperating genetic events in cancer through somatic genome editing. <i>Nature</i> , 2014, 516, 428-431.	13.7	353
200	CRISPR in the liver. <i>Science-Business EXchange</i> , 2014, 7, 447-447.	0.0	0
201	Target specificity of the CRISPR-Cas9 system. <i>Quantitative Biology</i> , 2014, 2, 59-70.	0.3	262
202	Mutagenesis and homologous recombination in <i>Drosophila</i> cell lines using CRISPR/Cas9. <i>Biology Open</i> , 2014, 3, 42-49.	0.6	108
203	Genome Editing Using Cas9 Nickases. <i>Methods in Enzymology</i> , 2014, 546, 161-174.	0.4	78

#	ARTICLE	IF	CITATIONS
204	Mouse Genome Editing Using the CRISPR/Cas System. <i>Current Protocols in Human Genetics</i> , 2014, 83, 15.7.1-27.	3.5	90
206	The iCRISPR Platform for Rapid Genome Editing in Human Pluripotent Stem Cells. <i>Methods in Enzymology</i> , 2014, 546, 215-250.	0.4	59
207	The <sc>CRISPR</sc>/<sc>C</sc>as system can be used as nuclease for <i>in planta</i> gene targeting and as paired nickases for directed mutagenesis in <sc>A</sc>rabisidopsis resulting in heritable progeny. <i>Plant Journal</i> , 2014, 80, 1139-1150.	2.8	317
208	Creating Class I MHCâ€Null Pigs Using Guide RNA and the Cas9 Endonuclease. <i>Journal of Immunology</i> , 2014, 193, 5751-5757.	0.4	141
209	Characterization of Genomic Deletion Efficiency Mediated by Clustered Regularly Interspaced Palindromic Repeats (CRISPR)/Cas9 Nuclease System in Mammalian Cells*. <i>Journal of Biological Chemistry</i> , 2014, 289, 21312-21324.	1.6	309
210	Genetic correction using engineered nucleases for gene therapy applications. <i>Development Growth and Differentiation</i> , 2014, 56, 63-77.	0.6	37
211	Highly efficient RNA-guided genome editing in human cells via delivery of purified Cas9 ribonucleoproteins. <i>Genome Research</i> , 2014, 24, 1012-1019.	2.4	1,470
212	Specific and heritable gene editing in <i>Arabidopsis</i>. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 4357-4358.	3.3	29
213	Genome-Scale CRISPR-Mediated Control of Gene Repression and Activation. <i>Cell</i> , 2014, 159, 647-661.	13.5	2,176
214	Synthetic biology and therapeutic strategies for the degenerating brain. <i>BioEssays</i> , 2014, 36, 979-990.	1.2	23
215	Efficient Editing of Malaria Parasite Genome Using the CRISPR/Cas9 System. <i>MBio</i> , 2014, 5, e01414-14.	1.8	119
216	Genome-wide identification of CRISPR/Cas9 off-targets in human genome. <i>Cell Research</i> , 2014, 24, 1009-1012.	5.7	125
217	Genome editing in rice and wheat using the CRISPR/Cas system. <i>Nature Protocols</i> , 2014, 9, 2395-2410.	5.5	627
218	megaTALs: a rare-cleaving nuclease architecture for therapeutic genome engineering. <i>Nucleic Acids Research</i> , 2014, 42, 2591-2601.	6.5	151
219	The genome editing toolbox: a spectrum of approaches for targeted modification. <i>Current Opinion in Biotechnology</i> , 2014, 30, 87-94.	3.3	31
220	Investigating human disease using stem cell models. <i>Nature Reviews Genetics</i> , 2014, 15, 625-639.	7.7	225
221	One-step generation of knockout pigs by zygote injection of CRISPR/Cas system. <i>Cell Research</i> , 2014, 24, 372-375.	5.7	397
222	RNA-directed gene editing specifically eradicates latent and prevents new HIV-1 infection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 11461-11466.	3.3	475

#	ARTICLE	IF	CITATIONS
223	Seamless gene correction of $\beta$ -thalassemia mutations in patient-specific iPSCs using CRISPR/Cas9 and <i>piggyBac</i> . <i>Genome Research</i> , 2014, 24, 1526-1533.	2.4	372
224	Conditional targeting of <i>lspd</i> using paired Cas9 nickase and a single DNA template in mice. <i>FEBS Open Bio</i> , 2014, 4, 637-642.	1.0	36
225	Controlling gene networks and cell fate with precision-targeted DNA-binding proteins and small-molecule-based genome readers. <i>Biochemical Journal</i> , 2014, 462, 397-413.	1.7	16
226	Efficient, Complete Deletion of Synaptic Proteins using CRISPR. <i>Neuron</i> , 2014, 83, 1051-1057.	3.8	104
227	Gene disruption by cell-penetrating peptide-mediated delivery of Cas9 protein and guide RNA. <i>Genome Research</i> , 2014, 24, 1020-1027.	2.4	552
228	CRISPR-mediated direct mutation of cancer genes in the mouse liver. <i>Nature</i> , 2014, 514, 380-384.	13.7	673
229	Generating genetically modified mice using CRISPR/Cas-mediated genome engineering. <i>Nature Protocols</i> , 2014, 9, 1956-1968.	5.5	477
230	The new CRISPR-Cas system: RNA-guided genome engineering to efficiently produce any desired genetic alteration in animals. <i>Transgenic Research</i> , 2014, 23, 707-716.	1.3	68
231	Expansion of the CRISPR-Cas9 genome targeting space through the use of H1 promoter-expressed guide RNAs. <i>Nature Communications</i> , 2014, 5, 4516.	5.8	60
232	Efficient CRISPR-Cas9-mediated genome editing in <i>Plasmodium falciparum</i> . <i>Nature Methods</i> , 2014, 11, 915-918.	9.0	205
233	Prevention of muscular dystrophy in mice by CRISPR/Cas9-mediated editing of germline DNA. <i>Science</i> , 2014, 345, 1184-1188.	6.0	595
234	Improving the specificity and efficacy of CRISPR/CAS9 and gRNA through target specific DNA reporter. <i>Journal of Biotechnology</i> , 2014, 189, 1-8.	1.9	14
235	Chromosomal Translocations in Human Cells Are Generated by Canonical Nonhomologous End-Joining. <i>Molecular Cell</i> , 2014, 55, 829-842.	4.5	278
236	Genome Editing: A Tool For Research and Therapy: Towards a functional understanding of variants for molecular diagnostics using genome editing. <i>Nature Medicine</i> , 2014, 20, 1103-1104.	15.2	14
237	Low Incidence of Off-Target Mutations in Individual CRISPR-Cas9 and TALEN Targeted Human Stem Cell Clones Detected by Whole-Genome Sequencing. <i>Cell Stem Cell</i> , 2014, 15, 27-30.	5.2	456
238	Genome modification by CRISPR/Cas9. <i>FEBS Journal</i> , 2014, 281, 5186-5193.	2.2	139
239	mRNA-based therapeutics – developing a new class of drugs. <i>Nature Reviews Drug Discovery</i> , 2014, 13, 759-780.	21.5	1,501
240	Adenoviral vector DNA for accurate genome editing with engineered nucleases. <i>Nature Methods</i> , 2014, 11, 1051-1057.	9.0	123

#	ARTICLE	IF	CITATIONS
241	Rational design of highly active sgRNAs for CRISPR-Cas9-mediated gene inactivation. <i>Nature Biotechnology</i> , 2014, 32, 1262-1267.	9.4	1,351
242	Impact of RNA-Guided Technologies for Target Identification and Deconvolution. <i>Journal of Biomolecular Screening</i> , 2014, 19, 1327-1337.	2.6	18
243	Genomic Editing Tools to Model Human Diseases with Isogenic Pluripotent Stem Cells. <i>Stem Cells and Development</i> , 2014, 23, 2673-2686.	1.1	51
244	Analysis of off-target effects of CRISPR/Cas-derived RNA-guided endonucleases and nickases. <i>Genome Research</i> , 2014, 24, 132-141.	2.4	1,195
245	RecA-dependent programmable endonuclease Ref cleaves DNA in two distinct steps. <i>Nucleic Acids Research</i> , 2014, 42, 3871-3883.	6.5	3
246	A simplified and efficient germline-specific CRISPR/Cas9 system for <i>Drosophila</i> genomic engineering. <i>Fly</i> , 2014, 8, 52-57.	0.9	104
247	How the ribosome hands the A-site tRNA to the P site during EF-G-catalyzed translocation. <i>Science</i> , 2014, 345, 1188-1191.	6.0	157
248	Simple generation of albino C57BL/6J mice with G291T mutation in the tyrosinase gene by the CRISPR/Cas9 system. <i>Mammalian Genome</i> , 2014, 25, 327-334.	1.0	103
249	iPS cell technologies: significance and applications to CNS regeneration and disease. <i>Molecular Brain</i> , 2014, 7, 22.	1.3	204
250	The use of induced pluripotent stem cells to reveal pathogenic gene mutations and explore treatments for retinitis pigmentosa. <i>Molecular Brain</i> , 2014, 7, 45.	1.3	95
252	CRISPR/Cas9 and TALEN-mediated knock-in approaches in zebrafish. <i>Methods</i> , 2014, 69, 142-150.	1.9	149
253	Lentiviral protein delivery of meganucleases in human cells mediates gene targeting and alleviates toxicity. <i>Gene Therapy</i> , 2014, 21, 759-766.	2.3	9
254	Engineering synthetic TALE and CRISPR/Cas9 transcription factors for regulating gene expression. <i>Methods</i> , 2014, 69, 188-197.	1.9	36
255	RNAi for silencing drug resistance in microbes toward development of nanoantibiotics. <i>Journal of Controlled Release</i> , 2014, 189, 150-157.	4.8	16
256	BuD, a helix-loop-helix DNA-binding domain for genome modification. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 2042-2052.	2.5	24
257	TALE nucleases as a new tool for genome editing. <i>Molecular Biology</i> , 2014, 48, 305-318.	0.4	4
258	A Cut above the Rest: Targeted Genome Editing Technologies in Human Pluripotent Stem Cells. <i>Journal of Biological Chemistry</i> , 2014, 289, 4594-4599.	1.6	111
259	Somatic mosaicism and allele complexity induced by CRISPR/Cas9 RNA injections in mouse zygotes. <i>Developmental Biology</i> , 2014, 393, 3-9.	0.9	270

#	ARTICLE	IF	CITATIONS
260	Whole-Genome Sequencing Analysis Reveals High Specificity of CRISPR/Cas9 and TALEN-Based Genome Editing in Human iPSCs. <i>Cell Stem Cell</i> , 2014, 15, 12-13.	5.2	315
261	Zebrafish as a model to assess cancer heterogeneity, progression and relapse. <i>DMM Disease Models and Mechanisms</i> , 2014, 7, 755-762.	1.2	42
262	Genome engineering via TALENs and CRISPR/Cas9 systems: challenges and perspectives. <i>Plant Biotechnology Journal</i> , 2014, 12, 1006-1014.	4.1	110
263	Human-induced pluripotent stem cells: potential for neurodegenerative diseases. <i>Human Molecular Genetics</i> , 2014, 23, R17-R26.	1.4	101
264	Role of stem cells in large animal genetic engineering in the TALENsâ€“CRISPR era. <i>Reproduction, Fertility and Development</i> , 2014, 26, 65.	0.1	14
265	Surrogate reporter-based enrichment of cells containing RNA-guided Cas9 nuclease-induced mutations. <i>Nature Communications</i> , 2014, 5, 3378.	5.8	123
266	CHOPCHOP: a CRISPR/Cas9 and TALEN web tool for genome editing. <i>Nucleic Acids Research</i> , 2014, 42, W401-W407.	6.5	997
267	Applications of TALENs and CRISPR/Cas9 in Human Cells and Their Potentials for Gene Therapy. <i>Molecular Biotechnology</i> , 2014, 56, 681-688.	1.3	36
268	Disrupting the male germ line to find infertility and contraception targets. <i>Annales D'Endocrinologie</i> , 2014, 75, 101-108.	0.6	17
269	Construction and characterization of adenoviral vectors for the delivery of TALENs into human cells. <i>Methods</i> , 2014, 69, 179-187.	1.9	32
270	Highly efficient multiplex targeted mutagenesis and genomic structure variation in <i>Bombyx mori</i> cells using CRISPR/Cas9. <i>Insect Biochemistry and Molecular Biology</i> , 2014, 49, 35-42.	1.2	79
271	The application of transcription activator-like effector nucleases for genome editing in <i>C. elegans</i> . <i>Methods</i> , 2014, 68, 389-396.	1.9	4
272	Generation of targeted mouse mutants by embryo microinjection of TALENs. <i>Methods</i> , 2014, 69, 94-101.	1.9	17
273	Efficient Designer Nuclease-Based Homologous Recombination Enables Direct PCR Screening for Footprintless Targeted Human Pluripotent Stem Cells. <i>Stem Cell Reports</i> , 2014, 2, 107-118.	2.3	34
274	CRISPR/Cas9 mediated genome engineering in <i>Drosophila</i> . <i>Methods</i> , 2014, 69, 128-136.	1.9	115
275	CRISPR/Cas9 and Genome Editing in <i>Drosophila</i> . <i>Journal of Genetics and Genomics</i> , 2014, 41, 7-19.	1.7	174
276	Toward establishing an efficient and versatile gene targeting system in higher plants. <i>Biocatalysis and Agricultural Biotechnology</i> , 2014, 3, 2-6.	1.5	11
277	The combinational use of CRISPR/Cas9-based gene editing and targeted toxin technology enables efficient biallelic knockout of the $\beta$ -galactosyltransferase gene in porcine embryonic fibroblasts. <i>Xenotransplantation</i> , 2014, 21, 291-300.	1.6	47



#	ARTICLE	IF	CITATIONS
278	Precision genome editing: A small revolution for glycobiology. <i>Glycobiology</i> , 2014, 24, 663-680.	1.3	47
279	Stem Cells on the Brain: Modeling Neurodevelopmental and Neurodegenerative Diseases Using Human Induced Pluripotent Stem Cells. <i>Journal of Neurogenetics</i> , 2014, 28, 5-29.	0.6	52
280	Enhancing the Specificity of Recombinase-Mediated Genome Engineering through Dimer Interface Redesign. <i>Journal of the American Chemical Society</i> , 2014, 136, 5047-5056.	6.6	29
281	An iCRISPR Platform for Rapid, Multiplexable, and Inducible Genome Editing in Human Pluripotent Stem Cells. <i>Cell Stem Cell</i> , 2014, 15, 215-226.	5.2	411
282	Development and Applications of CRISPR-Cas9 for Genome Engineering. <i>Cell</i> , 2014, 157, 1262-1278.	13.5	4,607
283	DNA sequencing and CRISPR-Cas9 gene editing for target validation in mammalian cells. <i>Nature Chemical Biology</i> , 2014, 10, 623-625.	3.9	82
284	TALEN-mediated editing of endogenous T-cell receptors facilitates efficient reprogramming of T lymphocytes by lentiviral gene transfer. <i>Gene Therapy</i> , 2014, 21, 539-548.	2.3	129
285	Generation of mouse models of myeloid malignancy with combinatorial genetic lesions using CRISPR-Cas9 genome editing. <i>Nature Biotechnology</i> , 2014, 32, 941-946.	9.4	477
286	Rapid and Efficient Assembly of Transcription Activator-Like Effector Genes by USER Cloning. <i>Journal of Genetics and Genomics</i> , 2014, 41, 339-347.	1.7	6
289	Precise gene deletion and replacement using the CRISPR/Cas9 system in human cells. <i>BioTechniques</i> , 2014, 57, 115-124.	0.8	144
290	Targeted Genome Editing Tools for Disease Modeling and Gene Therapy. <i>Current Gene Therapy</i> , 2014, 14, 2-9.	0.9	50
291	Expanding the genetic editing tool kit: ZFNs, TALENs, and CRISPR-Cas9. <i>Journal of Clinical Investigation</i> , 2014, 124, 4154-4161.	3.9	369
292	Mouse Genome Engineering Using Designer Nucleases. <i>Journal of Visualized Experiments</i> , 2014, , .	0.2	11
293	Selection of chromosomal DNA libraries using a multiplex CRISPR system. <i>ELife</i> , 2014, 3, .	2.8	314
294	Efficient CRISPR/Cas9-Mediated Gene Editing in <i>Arabidopsis thaliana</i> and Inheritance of Modified Genes in the T2 and T3 Generations. <i>PLoS ONE</i> , 2014, 9, e99225.	1.1	136
295	One-step generation of myostatin gene knockout sheep via the CRISPR/Cas9 system. <i>Frontiers of Agricultural Science and Engineering</i> , 2014, 1, 2.	0.9	60
296	Genome engineering of isogenic human ES cells to model autism disorders. <i>Nucleic Acids Research</i> , 2015, 43, e65-e65.	6.5	15
297	TALEN-mediated gene editing of the <i>thrombospondin</i> locus in axolotl. <i>Regeneration (Oxford)</i> Tj ETQq1 1 0.784314 rgBT 6,3 13	0.6	13

#	ARTICLE	IF	CITATIONS
298	CRISPR/Cas9-mediated genome engineering of CHO cell factories: Application and perspectives. <i>Biotechnology Journal</i> , 2015, 10, 979-994.	1.8	104
299	Disruption of MeCP2 attenuates circadian rhythm in CRISPR/Cas9-based Rett syndrome model mouse. <i>Genes To Cells</i> , 2015, 20, 992-1005.	0.5	32
300	Genome Editing in Human Cells Using CRISPR/Cas Nucleases. <i>Current Protocols in Molecular Biology</i> , 2015, 112, 31.3.1-31.3.18.	2.9	12
301	CRISPR/Cas9 nickase-mediated disruption of hepatitis B virus open reading frame S and X. <i>Scientific Reports</i> , 2015, 5, 13734.	1.6	97
302	Generation of gene-modified goats targeting MSTN and FGF5 via zygote injection of CRISPR/Cas9 system. <i>Scientific Reports</i> , 2015, 5, 13878.	1.6	151
303	Genome-editing technologies and their potential application in horticultural crop breeding. <i>Horticulture Research</i> , 2015, 2, 15019.	2.9	121
304	Long-range gene regulation and novel therapeutic applications. <i>Blood</i> , 2015, 125, 1521-1525.	0.6	9
305	Synthesis of an arrayed sgRNA library targeting the human genome. <i>Scientific Reports</i> , 2015, 5, 14987.	1.6	46
306	Single-step generation of rabbits carrying a targeted allele of the tyrosinase gene using CRISPR/Cas9. <i>Experimental Animals</i> , 2015, 64, 31-37.	0.7	66
307	Detailed Phenotypic and Molecular Analyses of Genetically Modified Mice Generated by CRISPR-Cas9-Mediated Editing. <i>PLoS ONE</i> , 2015, 10, e0116484.	1.1	42
308	Assembly and Validation of Versatile Transcription Activator-Like Effector Libraries. <i>Scientific Reports</i> , 2014, 4, 4857.	1.6	7
309	Tuneable endogenous mammalian target complementation via multiplexed plasmid-based recombineering. <i>Scientific Reports</i> , 2015, 5, 17432.	1.6	4
310	Generation of hypoxanthine phosphoribosyltransferase gene knockout rabbits by homologous recombination and gene trapping through somatic cell nuclear transfer. <i>Scientific Reports</i> , 2015, 5, 16023.	1.6	10
311	CRISPR-Cas9 Genome Editing in <i>Drosophila</i> . <i>Current Protocols in Molecular Biology</i> , 2015, 111, 31.2.1-31.2.20.	2.9	159
312	Self-Assembled DNA Nanoclews for the Efficient Delivery of CRISPR-Cas9 for Genome Editing. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 12029-12033.	7.2	517
313	Functional knockout of FUT8 in Chinese hamster ovary cells using CRISPR/Cas9 to produce a defucosylated antibody. <i>Engineering in Life Sciences</i> , 2015, 15, 660-666.	2.0	30
315	The Use of Innovative Tools to Reproduce Human Cancer Translocations: Lessons from the CRISPR/Cas System. <i>Current Biotechnology</i> , 2015, 3, 273-278.	0.2	0
316	Minimizing off-Target Mutagenesis Risks Caused by Programmable Nucleases. <i>International Journal of Molecular Sciences</i> , 2015, 16, 24751-24771.	1.8	28

#	ARTICLE	IF	CITATIONS
317	Online High-throughput Mutagenesis Designer Using Scoring Matrix of Sequence-specific Endonucleases. <i>Journal of Integrative Bioinformatics</i> , 2015, 12, 35-48.	1.0	16
318	Perspectives of Genome-Editing Technologies for HIV Therapy. <i>Current HIV Research</i> , 2015, 14, 2-8.	0.2	3
320	Direct Injection of CRISPR/Cas9-Related mRNA into Cytoplasm of Parthenogenetically Activated Porcine Oocytes Causes Frequent Mosaicism for Indel Mutations. <i>International Journal of Molecular Sciences</i> , 2015, 16, 17838-17856.	1.8	55
321	Genome Editing Using Mammalian Haploid Cells. <i>International Journal of Molecular Sciences</i> , 2015, 16, 23604-23614.	1.8	17
322	Homologous Recombination-Independent Large Gene Cassette Knock-in in CHO Cells Using TALEN and MMEJ-Directed Donor Plasmids. <i>International Journal of Molecular Sciences</i> , 2015, 16, 23849-23866.	1.8	76
323	Application of CRISPR/Cas9 Technology to HBV. <i>International Journal of Molecular Sciences</i> , 2015, 16, 26077-26086.	1.8	35
324	Induced Pluripotency and Gene Editing in Disease Modelling: Perspectives and Challenges. <i>International Journal of Molecular Sciences</i> , 2015, 16, 28614-28634.	1.8	19
325	Patient-Specific iPSC-Derived RPE for Modeling of Retinal Diseases. <i>Journal of Clinical Medicine</i> , 2015, 4, 567-578.	1.0	26
326	Rapid Knockout and Reporter Mouse Line Generation and Breeding Colony Establishment Using EUCOMM Conditional-Ready Embryonic Stem Cells: A Case Study. <i>Frontiers in Endocrinology</i> , 2015, 6, 105.	1.5	27
327	Novel Genome-Editing Tools to Model and Correct Primary Immunodeficiencies. <i>Frontiers in Immunology</i> , 2015, 6, 250.	2.2	32
329	CRISPR-Cas9: A Revolutionary Tool for Cancer Modelling. <i>International Journal of Molecular Sciences</i> , 2015, 16, 22151-22168.	1.8	26
330	A High Excision Potential of TALENs for Integrated DNA of HIV-Based Lentiviral Vector. <i>PLoS ONE</i> , 2015, 10, e0120047.	1.1	48
331	Damaging the Integrated HIV Proviral DNA with TALENs. <i>PLoS ONE</i> , 2015, 10, e0125652.	1.1	34
332	Efficient Generation of Myostatin Knock-Out Sheep Using CRISPR/Cas9 Technology and Microinjection into Zygotes. <i>PLoS ONE</i> , 2015, 10, e0136690.	1.1	220
333	CRISPR/Cas9n-Mediated Deletion of the Snail 1 Gene (SNAI1) Reveals Its Role in Regulating Cell Morphology, Cell-Cell Interactions, and Gene Expression in Ovarian Cancer (RMG-1) Cells. <i>PLoS ONE</i> , 2015, 10, e0132260.	1.1	22
334	Redesigning Recombinase Specificity for Safe Harbor Sites in the Human Genome. <i>PLoS ONE</i> , 2015, 10, e0139123.	1.1	14
335	Direct Comparison of a Natural Loss-Of-Function Single Nucleotide Polymorphism with a Targeted Deletion in the Ncf1 Gene Reveals Different Phenotypes. <i>PLoS ONE</i> , 2015, 10, e0141974.	1.1	15
336	Integrative Analysis of CRISPR/Cas9 Target Sites in the Human <i>HBB</i> Gene. <i>BioMed Research International</i> , 2015, 2015, 1-9.	0.9	12

#	ARTICLE	IF	CITATIONS
337	CRISPR/Cas9 nuclease cleavage combined with Gibson assembly for seamless cloning. <i>BioTechniques</i> , 2015, 58, 161-170.	0.8	63
338	The therapeutic potential of genome editing for $\beta$ -thalassemia. <i>F1000Research</i> , 2015, 4, 1431.	0.8	7
339	Genome-wide specificity of DNA binding, gene regulation, and chromatin remodeling by TALE- and CRISPR/Cas9-based transcriptional activators. <i>Genome Research</i> , 2015, 25, 1158-1169.	2.4	114
340	Site-specific integration in CHO cells mediated by CRISPR/Cas9 and homology-directed DNA repair pathway. <i>Scientific Reports</i> , 2015, 5, 8572.	1.6	168
341	Expanding the Biologist's Toolkit with CRISPR-Cas9. <i>Molecular Cell</i> , 2015, 58, 568-574.	4.5	351
342	Choosing the Right Tool for the Job: RNAi, TALEN, or CRISPR. <i>Molecular Cell</i> , 2015, 58, 575-585.	4.5	374
343	Challenges in CRISPR/CAS9 Delivery: Potential Roles of Nonviral Vectors. <i>Human Gene Therapy</i> , 2015, 26, 452-462.	1.4	164
344	Advances in New Technology for Targeted Modification of Plant Genomes. , 2015, , .		13
345	Optimization of methods for the genetic modification of human T cells. <i>Immunology and Cell Biology</i> , 2015, 93, 896-908.	1.0	25
346	Generation of B Cell-Deficient Pigs by Highly Efficient CRISPR/Cas9-Mediated Gene Targeting. <i>Journal of Genetics and Genomics</i> , 2015, 42, 437-444.	1.7	43
347	Developing CRISPR Technology in Major Crop Plants. , 2015, , 145-159.		5
348	Engineered Nucleases Lead to Genome Editing Revolution in Rats. , 2015, , 183-195.		0
349	Functional validation of mouse tyrosinase non-coding regulatory DNA elements by CRISPR-Cas9-mediated mutagenesis. <i>Nucleic Acids Research</i> , 2015, 43, 4855-4867.	6.5	69
350	Measuring and Reducing Off-Target Activities of Programmable Nucleases Including CRISPR-Cas9. <i>Molecules and Cells</i> , 2015, 38, 475-481.	1.0	181
351	Structure Principles of CRISPR-Cas Surveillance and Effector Complexes. <i>Annual Review of Biophysics</i> , 2015, 44, 229-255.	4.5	21
352	In Vitro Reconstitution and Crystallization of Cas9 Endonuclease Bound to a Guide RNA and a DNA Target. <i>Methods in Enzymology</i> , 2015, 558, 515-537.	0.4	23
353	A Toolkit of CRISPR-Based Genome Editing Systems in <i>Drosophila</i> . <i>Journal of Genetics and Genomics</i> , 2015, 42, 141-149.	1.7	44
354	The application of genome editing in studying hearing loss. <i>Hearing Research</i> , 2015, 327, 102-108.	0.9	46

#	ARTICLE	IF	CITATIONS
355	Targeted mutagenesis in soybean using the CRISPR-Cas9 system. <i>Scientific Reports</i> , 2015, 5, 10342.	1.6	306
356	High-Throughput Silencing Using the CRISPR-Cas9 System: A Review of the Benefits and Challenges. <i>Journal of Biomolecular Screening</i> , 2015, 20, 1027-1039.	2.6	31
357	CRISPR-Cas9-mediated genome editing and guide RNA design. <i>Mammalian Genome</i> , 2015, 26, 501-510.	1.0	53
358	Rapid and highly efficient mammalian cell engineering via Cas9 protein transfection. <i>Journal of Biotechnology</i> , 2015, 208, 44-53.	1.9	587
359	Engineering Sequence-Specific DNA Binding Proteins for Antiviral Gene Editing. , 2015, , 63-94.		4
360	Gene Therapy for Chronic Hepatitis B Virus Infection. , 2015, , 151-189.		0
361	A Perspective on the Future of High-Throughput RNAi Screening: Will CRISPR Cut Out the Competition or Can RNAi Help Guide the Way?. <i>Journal of Biomolecular Screening</i> , 2015, 20, 1040-1051.	2.6	32
362	Dimeric CRISPR RNA-Guided FokI-dCas9 Nucleases Directed by Truncated gRNAs for Highly Specific Genome Editing. <i>Human Gene Therapy</i> , 2015, 26, 425-431.	1.4	127
363	CRISPR/Cas9-mediated reporter knock-in in mouse haploid embryonic stem cells. <i>Scientific Reports</i> , 2015, 5, 10710.	1.6	28
364	A Platform for Reverse Genetics in Endothelial Cells. <i>Circulation Research</i> , 2015, 117, 107-108.	2.0	5
365	Differentiation of human pluripotent stem cells into $\beta$ <sup>2</sup> -cells: Potential and challenges. <i>Best Practice and Research in Clinical Endocrinology and Metabolism</i> , 2015, 29, 833-847.	2.2	40
366	CRISPR interference and priming varies with individual spacer sequences. <i>Nucleic Acids Research</i> , 2015, 43, 10831-10847.	6.5	95
367	Gene therapy for Rett syndrome: prospects and challenges. <i>Future Neurology</i> , 2015, 10, 467-484.	0.9	7
368	Optimizing Chinese hamster ovary cell line development via targeted control of N-glycosylation. <i>Pharmaceutical Bioprocessing</i> , 2015, 3, 443-461.	0.8	3
369	New Era of Gene Editing: A Brief Discussion of Engineered Nucleases with Gene Editing Ability. <i>Gene and Gene Editing</i> , 2015, 1, 26-30.	0.0	1
370	Fanconi Anemia Gene Editing by the CRISPR/Cas9 System. <i>Human Gene Therapy</i> , 2015, 26, 114-126.	1.4	94
371	Genome Editing in Stem Cells. <i>Current Stem Cell Reports</i> , 2015, 1, 31-38.	0.7	1
372	Digenome-seq: genome-wide profiling of CRISPR-Cas9 off-target effects in human cells. <i>Nature Methods</i> , 2015, 12, 237-243.	9.0	850

#	ARTICLE	IF	CITATIONS
373	CRISPR genome engineering and viral gene delivery: A case of mutual attraction. <i>Biotechnology Journal</i> , 2015, 10, 258-272.	1.8	73
374	Functional genomic screening approaches in mechanistic toxicology and potential future applications of CRISPR-Cas9. <i>Mutation Research - Reviews in Mutation Research</i> , 2015, 764, 31-42.	2.4	23
375	CRISPR-engineered mosaicism rapidly reveals that loss of <i>Kcnj13</i> function in mice mimics human disease phenotypes. <i>Scientific Reports</i> , 2015, 5, 8366.	1.6	84
376	Therapeutic genome editing: prospects and challenges. <i>Nature Medicine</i> , 2015, 21, 121-131.	15.2	1,042
377	Tracing the potential of lung progenitors. <i>Nature Biotechnology</i> , 2015, 33, 152-154.	9.4	4
378	Inducible in vivo genome editing with CRISPR-Cas9. <i>Nature Biotechnology</i> , 2015, 33, 390-394.	9.4	429
379	Multiplex CRISPR/Cas9-based genome editing for correction of dystrophin mutations that cause Duchenne muscular dystrophy. <i>Nature Communications</i> , 2015, 6, 6244.	5.8	383
380	Multigene Editing in the <i>Escherichia coli</i> Genome via the CRISPR-Cas9 System. <i>Applied and Environmental Microbiology</i> , 2015, 81, 2506-2514.	1.4	908
381	Multiplex metabolic pathway engineering using CRISPR/Cas9 in <i>Saccharomyces cerevisiae</i> . <i>Metabolic Engineering</i> , 2015, 28, 213-222.	3.6	355
382	Path from schizophrenia genomics to biology: gene regulation and perturbation in neurons derived from induced pluripotent stem cells and genome editing. <i>Neuroscience Bulletin</i> , 2015, 31, 113-127.	1.5	12
383	Mapping the precision of genome editing. <i>Nature Biotechnology</i> , 2015, 33, 150-152.	9.4	33
384	A robust TALENs system for highly efficient mammalian genome editing. <i>Scientific Reports</i> , 2014, 4, 3632.	1.6	22
385	Exogenous enzymes upgrade transgenesis and genetic engineering of farm animals. <i>Cellular and Molecular Life Sciences</i> , 2015, 72, 1907-1929.	2.4	31
386	CRISPR/Cas9: The Leading Edge of Genome Editing Technology. , 2015, , 25-41.		12
387	Efficient generation of genetically distinct pigs in a single pregnancy using multiplexed singleâ€guide <sc>RNA</sc> and carbohydrate selection. <i>Xenotransplantation</i> , 2015, 22, 20-31.	1.6	134
388	Highly efficient targeted mutagenesis in one-cell mouse embryos mediated by the TALEN and CRISPR/Cas systems. <i>Scientific Reports</i> , 2015, 4, 5705.	1.6	64
389	The impact of CRISPRâ€Cas9 on target identification and validation. <i>Drug Discovery Today</i> , 2015, 20, 450-457.	3.2	56
390	Mouse Genome Engineering via CRISPR-Cas9 for Study of Immune Function. <i>Immunity</i> , 2015, 42, 18-27.	6.6	91

#	ARTICLE	IF	CITATIONS
391	Targeted Genome Editing Using Site-Specific Nucleases. , 2015, , .		7
392	Quantifying on- and off-target genome editing. Trends in Biotechnology, 2015, 33, 132-140.	4.9	127
393	Efficient CRISPR-rAAV engineering of endogenous genes to study protein function by allele-specific RNAi. Nucleic Acids Research, 2015, 43, e45-e45.	6.5	26
394	Identifying Drug-Target Selectivity of Small-Molecule CRM1/XPO1 Inhibitors by CRISPR/Cas9 Genome Editing. Chemistry and Biology, 2015, 22, 107-116.	6.2	108
395	Unbiased detection of off-target cleavage by CRISPR-Cas9 and TALENs using integrase-defective lentiviral vectors. Nature Biotechnology, 2015, 33, 175-178.	9.4	395
396	Genome editing strategies: potential tools for eradicating HIV-1/AIDS. Journal of NeuroVirology, 2015, 21, 310-321.	1.0	39
397	A CRISPR/Cas9 Vector System for Tissue-Specific Gene Disruption in Zebrafish. Developmental Cell, 2015, 32, 756-764.	3.1	325
399	Genetic screens and functional genomics using <scp>CRISPR</scp>/Cas9 technology. FEBS Journal, 2015, 282, 1383-1393.	2.2	82
400	One-step high-efficiency CRISPR/Cas9-mediated genome editing in &lt;i>Streptomyces</i>. Acta Biochimica Et Biophysica Sinica, 2015, 47, 231-243.	0.9	257
401	Genome Engineering for Therapeutic Applications. , 2015, , 27-43.		4
402	A versatile reporter system for CRISPR-mediated chromosomal rearrangements. Genome Biology, 2015, 16, 111.	13.9	52
403	Photoactivatable CRISPR-Cas9 for optogenetic genome editing. Nature Biotechnology, 2015, 33, 755-760.	9.4	521
404	Efficient Generation of hiPSC Neural Lineage Specific Knockin Reporters Using the CRISPR/Cas9 and Cas9 Double Nickase System. Journal of Visualized Experiments, 2015, , e52539.	0.2	5
405	A pre-screening FISH-based method to detect CRISPR/Cas9 off-targets in mouse embryonic stem cells. Scientific Reports, 2015, 5, 12327.	1.6	20
406	The Application of CRISPR-Cas9 Genome Editing in Caenorhabditis elegans. Journal of Genetics and Genomics, 2015, 42, 413-421.	1.7	15
407	Dangerous Liaisons: Connecting CRISPR/Cas9 to Clinical Science. Genetic Testing and Molecular Biomarkers, 2015, 19, 409-410.	0.3	3
408	High-throughput gene targeting and phenotyping in zebrafish using CRISPR/Cas9. Genome Research, 2015, 25, 1030-1042.	2.4	458
409	Enriching CRISPR-Cas9 targeted cells by co-targeting the HPRT gene. Nucleic Acids Research, 2015, 43, gkv675.	6.5	36

#	ARTICLE	IF	CITATIONS
410	CRISPR-mediated genotypic and phenotypic correction of a chronic granulomatous disease mutation in human iPS cells. <i>Experimental Hematology</i> , 2015, 43, 838-848.e3.	0.2	116
411	Dissecting diabetes/metabolic disease mechanisms using pluripotent stem cells and genome editing tools. <i>Molecular Metabolism</i> , 2015, 4, 593-604.	3.0	24
412	Generation of muscular dystrophy model rats with a CRISPR/Cas system. <i>Scientific Reports</i> , 2014, 4, 5635.	1.6	119
413	Generation of inheritable and "transgene clean" targeted genome-modified rice in later generations using the CRISPR/Cas9 system. <i>Scientific Reports</i> , 2015, 5, 11491.	1.6	226
414	Precision cancer mouse models through genome editing with CRISPR-Cas9. <i>Genome Medicine</i> , 2015, 7, 53.	3.6	88
415	Unraveling CRISPR-Cas9 genome engineering parameters via a library-on-library approach. <i>Nature Methods</i> , 2015, 12, 823-826.	9.0	361
416	A CRISPR/Cas-Mediated Selection-free Knockin Strategy in Human Embryonic Stem Cells. <i>Stem Cell Reports</i> , 2015, 4, 1103-1111.	2.3	85
417	Systematic analysis of CRISPR-Cas9 mismatch tolerance reveals low levels of off-target activity. <i>Journal of Biotechnology</i> , 2015, 211, 56-65.	1.9	135
418	Single-Step Generation of Conditional Knockout Mouse Embryonic Stem Cells. <i>Cell Reports</i> , 2015, 12, 709-716.	2.9	76
419	Effect of Polypurine Reverse Hoogsteen Hairpins on Relevant Cancer Target Genes in Different Human Cell Lines. <i>Nucleic Acid Therapeutics</i> , 2015, 25, 198-208.	2.0	20
420	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, 213-220.	5.2	263
421	CRISPR-Cas: New Tools for Genetic Manipulations from Bacterial Immunity Systems. <i>Annual Review of Microbiology</i> , 2015, 69, 209-228.	2.9	160
422	Efficient CRISPR-mediated gene targeting and transgene replacement in the beetle <i>Tribolium castaneum</i> . <i>Development (Cambridge)</i> , 2015, 142, 2832-9.	1.2	141
423	Animal Models in Biomedical Research. , 2015, , 1497-1534.		11
424	A genome-wide analysis of Cas9 binding specificity using ChIP-seq and targeted sequence capture. <i>Nucleic Acids Research</i> , 2015, 43, 3389-3404.	6.5	193
425	Somatic CRISPR/Cas9-mediated tumour suppressor disruption enables versatile brain tumour modelling. <i>Nature Communications</i> , 2015, 6, 7391.	5.8	244
426	Generation of mutant mice via the CRISPR/Cas9 system using FokI-dCas9. <i>Scientific Reports</i> , 2015, 5, 11221.	1.6	41
427	Engineered CRISPR-Cas9 nucleases with altered PAM specificities. <i>Nature</i> , 2015, 523, 481-485.	13.7	1,388



#	ARTICLE	IF	CITATIONS
428	Delivery and Specificity of CRISPR/Cas9 Genome Editing Technologies for Human Gene Therapy. <i>Human Gene Therapy</i> , 2015, 26, 443-451.	1.4	157
429	Cas9-chromatin binding information enables more accurate CRISPR off-target prediction. <i>Nucleic Acids Research</i> , 2015, 43, e118-e118.	6.5	187
430	CRISPR-Cas9-Mediated Single-Gene and Gene Family Disruption in <i>Trypanosoma cruzi</i> . <i>MBio</i> , 2015, 6, e02097-14.	1.8	186
431	Efficient Genome Editing in <i>Clostridium cellulolyticum</i> via CRISPR-Cas9 Nickase. <i>Applied and Environmental Microbiology</i> , 2015, 81, 4423-4431.	1.4	195
432	Lentiviral vectors in cancer immunotherapy. <i>Immunotherapy</i> , 2015, 7, 271-284.	1.0	28
433	CRISPR-Cas9 Based Genome Engineering: Opportunities in Agri-Food-Nutrition and Healthcare. <i>OMICS A Journal of Integrative Biology</i> , 2015, 19, 261-275.	1.0	11
434	A Short Splice Form of Xin-Actin Binding Repeat Containing 2 (XIRP2) Lacking the Xin Repeats Is Required for Maintenance of <i>Stereocilia</i> Morphology and Hearing Function. <i>Journal of Neuroscience</i> , 2015, 35, 1999-2014.	1.7	38
435	CRISPR/Cas9-mediated gene editing in human tripronuclear zygotes. <i>Protein and Cell</i> , 2015, 6, 363-372.	4.8	929
436	Genome editing at the crossroads of delivery, specificity, and fidelity. <i>Trends in Biotechnology</i> , 2015, 33, 280-291.	4.9	121
437	CRISPR-Cas system enables fast and simple genome editing of industrial <i>Saccharomyces cerevisiae</i> strains. <i>Metabolic Engineering Communications</i> , 2015, 2, 13-22.	1.9	154
438	Optical Control of CRISPR/Cas9 Gene Editing. <i>Journal of the American Chemical Society</i> , 2015, 137, 5642-5645.	6.6	220
439	Engineering T Cells to Functionally Cure HIV-1 Infection. <i>Molecular Therapy</i> , 2015, 23, 1149-1159.	3.7	43
440	Targeted genome modifications in soybean with CRISPR/Cas9. <i>BMC Biotechnology</i> , 2015, 15, 16.	1.7	504
441	RNA-guided CRISPR-Cas technologies for genome-scale investigation of disease processes. <i>Journal of Hematology and Oncology</i> , 2015, 8, 31.	6.9	8
442	Synthetic epigenetics towards intelligent control of epigenetic states and cell identity. <i>Clinical Epigenetics</i> , 2015, 7, 18.	1.8	59
443	Intron targeting-mediated and endogenous gene integrity-maintaining knockin in zebrafish using the CRISPR/Cas9 system. <i>Cell Research</i> , 2015, 25, 634-637.	5.7	105
444	Assembly and Characterization of megaTALS for Hyperspecific Genome Engineering Applications. <i>Methods in Molecular Biology</i> , 2015, 1239, 171-196.	0.4	5
445	CRISPR. <i>Methods in Molecular Biology</i> , 2015, , .	0.4	15

#	ARTICLE	IF	CITATIONS
446	Applications of CRISPR-Cas9 mediated genome engineering. <i>Military Medical Research</i> , 2015, 2, 11.	1.9	28
447	Genome Editing in Mice Using CRISPR/Cas. , 2015, , 151-166.		1
448	Brains, Genes, and Primates. <i>Neuron</i> , 2015, 86, 617-631.	3.8	231
449	Non-GMO genetically edited crop plants. <i>Trends in Biotechnology</i> , 2015, 33, 489-491.	4.9	66
450	Editing CCR5: A Novel Approach to HIV Gene Therapy. <i>Advances in Experimental Medicine and Biology</i> , 2015, 848, 117-130.	0.8	25
451	Improved specificity of TALE-based genome editing using an expanded RVD repertoire. <i>Nature Methods</i> , 2015, 12, 465-471.	9.0	91
452	Function of the N-terminal segment of the RecA-dependent nuclease Ref. <i>Nucleic Acids Research</i> , 2015, 43, 1795-1803.	6.5	5
453	TALE nickase-mediated <i>SP110</i> knockin endows cattle with increased resistance to tuberculosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E1530-9.	3.3	150
454	CRISPR MultiTargeter: A Web Tool to Find Common and Unique CRISPR Single Guide RNA Targets in a Set of Similar Sequences. <i>PLoS ONE</i> , 2015, 10, e0119372.	1.1	123
455	Genome Editing Using Zinc-Finger Nucleases (ZFNs) and Transcription Activator-Like Effector Nucleases (TALENs). , 2015, , 3-24.		6
456	CRISPR-Cas targeted plasmid integration into mammalian cells via non-homologous end joining. <i>Biotechnology and Bioengineering</i> , 2015, 112, 2154-2162.	1.7	50
457	TRANSCRIPTION FACTOR <i>Bmsage</i> PLAYS A CRUCIAL ROLE IN SILK GLAND GENERATION IN SILKWORM, <i>Bombyx mori</i> . <i>Archives of Insect Biochemistry and Physiology</i> , 2015, 90, 59-69.	0.6	19
458	Efficient CRISPR-Cas9-Mediated Generation of Knockin Human Pluripotent Stem Cells Lacking Undesired Mutations at the Targeted Locus. <i>Cell Reports</i> , 2015, 11, 875-883.	2.9	146
459	The pros and cons of vertebrate animal models for functional and therapeutic research on inherited retinal dystrophies. <i>Progress in Retinal and Eye Research</i> , 2015, 48, 137-159.	7.3	81
460	Cloning-free CRISPR/Cas system facilitates functional cassette knock-in in mice. <i>Genome Biology</i> , 2015, 16, 87.	3.8	250
462	Liver-targeted gene therapy: Approaches and challenges. <i>Liver Transplantation</i> , 2015, 21, 718-737.	1.3	25
463	Application of CRISPRi for prokaryotic metabolic engineering involving multiple genes, a case study: Controllable P(3HB-co-4HB) biosynthesis. <i>Metabolic Engineering</i> , 2015, 29, 160-168.	3.6	222
464	Advances in CRISPR-Cas9 genome engineering: lessons learned from RNA interference. <i>Nucleic Acids Research</i> , 2015, 43, 3407-3419.	6.5	124

#	ARTICLE	IF	CITATIONS
465	Application of CRISPR/Cas9 genome editing to the study and treatment of disease. Archives of Toxicology, 2015, 89, 1023-1034.	1.9	47
467	In vivo genome editing using Staphylococcus aureus Cas9. Nature, 2015, 520, 186-191.	13.7	2,237
468	Efficient Multiplexed Integration of Synergistic Alleles and Metabolic Pathways in Yeasts via CRISPR-Cas. Cell Systems, 2015, 1, 88-96.	2.9	266
469	High-throughput functional genomics using CRISPR-Cas9. Nature Reviews Genetics, 2015, 16, 299-311.	7.7	998
470	Small molecule-triggered Cas9 protein with improved genome-editing specificity. Nature Chemical Biology, 2015, 11, 316-318.	3.9	364
471	One-step generation of triple knockout CHO cell lines using CRISPR/Cas9 and fluorescent enrichment. Biotechnology Journal, 2015, 10, 1446-1456.	1.8	108
472	Functional disruption of the dystrophin gene in rhesus monkey using CRISPR/Cas9. Human Molecular Genetics, 2015, 24, 3764-3774.	1.4	209
473	Enabling functional genomics with genome engineering. Genome Research, 2015, 25, 1442-1455.	2.4	89
474	From Genomics to Gene Therapy: Induced Pluripotent Stem Cells Meet Genome Editing. Annual Review of Genetics, 2015, 49, 47-70.	3.2	111
475	Modeling Disease In Vivo With CRISPR/Cas9. Trends in Molecular Medicine, 2015, 21, 609-621.	3.5	91
476	Precise Genome Editing of Drosophila with CRISPR RNA-Guided Cas9. Methods in Molecular Biology, 2015, 1311, 335-348.	0.4	52
477	Targeted Mutagenesis in Zebrafish Using CRISPR RNA-Guided Nucleases. Methods in Molecular Biology, 2015, 1311, 317-334.	0.4	18
478	CRISPR/Cas9-based tools for targeted genome editing and replication control of HBV. Virologica Sinica, 2015, 30, 317-325.	1.2	18
479	Cloning-free CRISPR. Stem Cell Reports, 2015, 5, 908-917.	2.3	53
480	Broadening the targeting range of Staphylococcus aureus CRISPR-Cas9 by modifying PAM recognition. Nature Biotechnology, 2015, 33, 1293-1298.	9.4	511
481	Identification of a novel cis-regulatory element essential for immune tolerance. Journal of Experimental Medicine, 2015, 212, 1993-2002.	4.2	47
482	Combining CRISPR/Cas9 and rAAV Templates for Efficient Gene Editing. Nucleic Acid Therapeutics, 2015, 25, 287-296.	2.0	26
483	Production of knockout mice by DNA microinjection of various CRISPR/Cas9 vectors into freeze-thawed fertilized oocytes. BMC Biotechnology, 2015, 15, 33.	1.7	45

#	ARTICLE	IF	CITATIONS
484	Decoding Advances in Psychiatric Genetics. <i>Advances in Genetics</i> , 2015, 92, 75-106.	0.8	2
485	How specific is CRISPR/Cas9 really?. <i>Current Opinion in Chemical Biology</i> , 2015, 29, 72-78.	2.8	97
486	Genomes by design. <i>Nature Reviews Genetics</i> , 2015, 16, 501-516.	7.7	41
487	Novel lentiviral vectors with mutated reverse transcriptase for mRNA delivery of TALE nucleases. <i>Scientific Reports</i> , 2014, 4, 6409.	1.6	55
488	DNA-binding-domain fusions enhance the targeting range and precision of Cas9. <i>Nature Methods</i> , 2015, 12, 1150-1156.	9.0	107
489	Using the GEMM-ESC strategy to study gene function in mouse models. <i>Nature Protocols</i> , 2015, 10, 1755-1785.	5.5	41
490	The Current State of Na <sup>+</sup> -ve Human Pluripotency. <i>Stem Cells</i> , 2015, 33, 3181-3186.	1.4	33
491	Reversion of FMR1 Methylation and Silencing by Editing the Triplet Repeats in Fragile X iPSC-Derived Neurons. <i>Cell Reports</i> , 2015, 13, 234-241.	2.9	157
493	Efficient gene-targeting in rat embryonic stem cells by CRISPR/Cas and generation of human kynurenine aminotransferase II (KAT II) knock-in rat. <i>Transgenic Research</i> , 2015, 24, 991-1001.	1.3	12
494	Construction and applications of exon-trapping gene-targeting vectors with a novel strategy for negative selection. <i>BMC Research Notes</i> , 2015, 8, 278.	0.6	3
495	Identification of potential drug targets for tuberous sclerosis complex by synthetic screens combining CRISPR-based knockouts with RNAi. <i>Science Signaling</i> , 2015, 8, rs9.	1.6	113
497	Highly efficient editing of the actinorhodin polyketide chain length factor gene in <i>Streptomyces coelicolor</i> M145 using CRISPR/Cas9-CodA(sm) combined system. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 10575-10585.	1.7	122
498	Invader probes: harnessing the energy of intercalation to facilitate recognition of chromosomal DNA for diagnostic applications. <i>Chemical Science</i> , 2015, 6, 5006-5015.	3.7	22
499	Creating a monomeric endonuclease TALE-I-SceI with high specificity and low genotoxicity in human cells. <i>Nucleic Acids Research</i> , 2015, 43, 1112-1122.	6.5	24
500	A CRISPR/Cas9 Toolbox for Multiplexed Plant Genome Editing and Transcriptional Regulation. <i>Plant Physiology</i> , 2015, 169, 971-985.	2.3	532
501	Delivery and therapeutic applications of gene editing technologies ZFNs, TALENs, and CRISPR/Cas9. <i>International Journal of Pharmaceutics</i> , 2015, 494, 180-194.	2.6	94
502	CRISPR/Cas9 Genome Editing in <i>Caenorhabditis elegans</i> : Evaluation of Templates for Homology-Mediated Repair and Knock-Ins by Homology-Independent DNA Repair. <i>G3: Genes, Genomes, Genetics</i> , 2015, 5, 1649-1656.	0.8	53
503	Modeling Human Severe Combined Immunodeficiency and Correction by CRISPR/Cas9-Enhanced Gene Targeting. <i>Cell Reports</i> , 2015, 12, 1668-1677.	2.9	95

#	ARTICLE	IF	CITATIONS
504	Proven and novel strategies for efficient editing of the human genome. <i>Current Opinion in Pharmacology</i> , 2015, 24, 105-112.	1.7	18
505	Cas-Designer: a web-based tool for choice of CRISPR-Cas9 target sites. <i>Bioinformatics</i> , 2015, 31, 4014-4016.	1.8	306
506	CRISPR/Cas9-mediated genome editing and gene replacement in plants: Transitioning from lab to field. <i>Plant Science</i> , 2015, 240, 130-142.	1.7	139
507	mRNA transfection of a novel TAL effector nuclease (TALEN) facilitates efficient knockout of HIV co-receptor CCR5. <i>Nucleic Acids Research</i> , 2015, 43, 5560-5571.	6.5	102
508	Efficient CRISPR/Cas9-mediated multiplex genome editing in CHO cells via high-level sgRNA-Cas9 complex. <i>Biotechnology and Bioprocess Engineering</i> , 2015, 20, 825-833.	1.4	14
509	Off-target Effects in CRISPR/Cas9-mediated Genome Engineering. <i>Molecular Therapy - Nucleic Acids</i> , 2015, 4, e264.	2.3	872
510	Synthetic CRISPR RNA-Cas9â€‘guided genome editing in human cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E7110-7.	3.3	151
511	Biological Networks Governing the Acquisition, Maintenance, and Dissolution of Pluripotency: Insights from Functional Genomics Approaches. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2015, 80, 189-198.	2.0	2
512	Editing plant genomes with CRISPR/Cas9. <i>Current Opinion in Biotechnology</i> , 2015, 32, 76-84.	3.3	456
513	The CRISPR/Cas9 system for plant genome editing and beyond. <i>Biotechnology Advances</i> , 2015, 33, 41-52.	6.0	968
514	A Mouse Geneticistâ€™s Practical Guide to CRISPR Applications. <i>Genetics</i> , 2015, 199, 1-15.	1.2	290
515	Using RNA-seq and targeted nucleases to identify mechanisms of drug resistance in acute myeloid leukemia. <i>Scientific Reports</i> , 2014, 4, 6048.	1.6	29
516	Genome-wide detection of DNA double-stranded breaks induced by engineered nucleases. <i>Nature Biotechnology</i> , 2015, 33, 179-186.	9.4	590
517	GUIDE-seq enables genome-wide profiling of off-target cleavage by CRISPR-Cas nucleases. <i>Nature Biotechnology</i> , 2015, 33, 187-197.	9.4	1,757
518	Multigene Knockout Utilizing Off-Target Mutations of the CRISPR/Cas9 System in Rice. <i>Plant and Cell Physiology</i> , 2015, 56, 41-47.	1.5	202
519	CRISPRdirect: software for designing CRISPR/Cas guide RNA with reduced off-target sites. <i>Bioinformatics</i> , 2015, 31, 1120-1123.	1.8	935
520	Enabling plant synthetic biology through genome engineering. <i>Trends in Biotechnology</i> , 2015, 33, 120-131.	4.9	203
521	Creation of targeted genomic deletions using TALEN or CRISPR/Cas nuclease pairs in oneâ€‘cell mouse embryos. <i>FEBS Open Bio</i> , 2015, 5, 26-35.	1.0	37

#	ARTICLE	IF	CITATIONS
522	CRISPR-based self-cleaving mechanism for controllable gene delivery in human cells. <i>Nucleic Acids Research</i> , 2015, 43, 1297-1303.	6.5	46
523	Efficient programmable gene silencing by Cascade. <i>Nucleic Acids Research</i> , 2015, 43, 237-246.	6.5	288
524	Patient-specific induced pluripotent stem cells (iPSCs) for the study and treatment of retinal degenerative diseases. <i>Progress in Retinal and Eye Research</i> , 2015, 44, 15-35.	7.3	108
525	Multi-kilobase homozygous targeted gene replacement in human induced pluripotent stem cells. <i>Nucleic Acids Research</i> , 2015, 43, e21-e21.	6.5	147
526	Correction of a genetic disease by CRISPR-Cas9-mediated gene editing in mouse spermatogonial stem cells. <i>Cell Research</i> , 2015, 25, 67-79.	5.7	209
527	Precise Correction of the Dystrophin Gene in Duchenne Muscular Dystrophy Patient Induced Pluripotent Stem Cells by TALEN and CRISPR-Cas9. <i>Stem Cell Reports</i> , 2015, 4, 143-154.	2.3	459
528	An Efficient Genotyping Method for Genome-modified Animals and Human Cells Generated with CRISPR/Cas9 System. <i>Scientific Reports</i> , 2014, 4, 6420.	1.6	250
529	Genome Editing by Targeted Chromosomal Mutagenesis. <i>Methods in Molecular Biology</i> , 2015, 1239, 1-13.	0.4	9
530	Gene Therapy Using Stem Cells. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2015, 5, a017434-a017434.	2.9	16
531	Rapid prototyping of microbial cell factories via genome-scale engineering. <i>Biotechnology Advances</i> , 2015, 33, 1420-1432.	6.0	39
533	Efficient and Allele-Specific Genome Editing of Disease Loci in Human iPSCs. <i>Molecular Therapy</i> , 2015, 23, 570-577.	3.7	164
534	Genome Editing in Human Pluripotent Stem Cells Using Site-Specific Nucleases. <i>Methods in Molecular Biology</i> , 2015, 1239, 267-280.	0.4	17
535	Rapid generation of mouse models with defined point mutations by the CRISPR/Cas9 system. <i>Scientific Reports</i> , 2014, 4, 5396.	1.6	191
536	Multiplex genome engineering in human cells using all-in-one CRISPR/Cas9 vector system. <i>Scientific Reports</i> , 2014, 4, 5400.	1.6	318
537	Comparison of non-canonical PAMs for CRISPR/Cas9-mediated DNA cleavage in human cells. <i>Scientific Reports</i> , 2014, 4, 5405.	1.6	187
538	Efficient bi-allelic gene knockout and site-specific knock-in mediated by TALENs in pigs. <i>Scientific Reports</i> , 2014, 4, 6926.	1.6	57
539	Closing the genotypeâ€“phenotype gap: Emerging technologies for evolutionary genetics in ecological model vertebrate systems. <i>BioEssays</i> , 2015, 37, 213-226.	1.2	59
540	Off-target assessment of CRISPR-Cas9 guiding RNAs in human iPSC and mouse ES cells. <i>Genesis</i> , 2015, 53, 225-236.	0.8	55

#	ARTICLE	IF	CITATIONS
541	Genome Editing with Engineered Nucleases in Plants. <i>Plant and Cell Physiology</i> , 2015, 56, 389-400.	1.5	204
542	Genome Engineering Using CRISPR-Cas9 System. <i>Methods in Molecular Biology</i> , 2015, 1239, 197-217.	0.4	262
543	CRISPR/Cas9-mediated targeted mutagenesis in <i>Nicotiana tabacum</i> . <i>Plant Molecular Biology</i> , 2015, 87, 99-110.	2.0	293
544	Generation of CRISPR/Cas9-mediated gene-targeted pigs via somatic cell nuclear transfer. <i>Cellular and Molecular Life Sciences</i> , 2015, 72, 1175-1184.	2.4	202
545	mRNA transcript therapy. <i>Expert Review of Vaccines</i> , 2015, 14, 265-281.	2.0	149
546	Promoterless gene targeting without nucleases ameliorates haemophilia B in mice. <i>Nature</i> , 2015, 517, 360-364.	13.7	226
547	Repurposing endogenous type I CRISPR-Cas systems for programmable gene repression. <i>Nucleic Acids Research</i> , 2015, 43, 674-681.	6.5	202
548	In vivo interrogation of gene function in the mammalian brain using CRISPR-Cas9. <i>Nature Biotechnology</i> , 2015, 33, 102-106.	9.4	675
549	CRISPR Primer Designer: Design primers for knockout and chromosome imaging CRISPR-Cas system. <i>Journal of Integrative Plant Biology</i> , 2015, 57, 613-617.	4.1	33
550	Efficient genome engineering in eukaryotes using Cas9 from <i>Streptococcus thermophilus</i> . <i>Cellular and Molecular Life Sciences</i> , 2015, 72, 383-399.	2.4	67
551	Adenoviral vector delivery of RNA-guided CRISPR/Cas9 nuclease complexes induces targeted mutagenesis in a diverse array of human cells. <i>Scientific Reports</i> , 2014, 4, 5105.	1.6	121
552	CRISPR/Cas9 Systems: The Next Generation Gene Targeted Editing Tool. <i>Proceedings of the National Academy of Sciences India Section B - Biological Sciences</i> , 2015, 85, 377-387.	0.4	1
553	Ethical Issues in Genome Editing using Crispr/Cas9 System. <i>Journal of Clinical Research &amp; Bioethics</i> , 2016, 07, .	0.2	16
554	Plant Genome Editing and its Applications in Cereals. , 2016, , .		4
555	CRISPR/Cas9 therapeutics: a cure for cancer and other genetic diseases. <i>Oncotarget</i> , 2016, 7, 52541-52552.	0.8	68
556	Brain tumor modeling using the CRISPR/Cas9 system: state of the art and view to the future. <i>Oncotarget</i> , 2016, 7, 33461-33471.	0.8	19
557	A CRISPR-Based Toolbox for Studying T Cell Signal Transduction. <i>BioMed Research International</i> , 2016, 2016, 1-10.	0.9	24
558	The Power of CRISPR-Cas9-Induced Genome Editing to Speed Up Plant Breeding. <i>International Journal of Genomics</i> , 2016, 2016, 1-10.	0.8	40

#	ARTICLE	IF	CITATIONS
559	Multi-OMICs and Genome Editing Perspectives on Liver Cancer Signaling Networks. <i>BioMed Research International</i> , 2016, 2016, 1-14.	0.9	7
560	The Rise of CRISPR/Cas for Genome Editing in Stem Cells. <i>Stem Cells International</i> , 2016, 2016, 1-17.	1.2	21
561	<i>In Vitro</i> Osteogenic Potential of Green Fluorescent Protein Labelled Human Embryonic Stem Cell-Derived Osteoprogenitors. <i>Stem Cells International</i> , 2016, 2016, 1-9.	1.2	10
562	Strategies to Correct Nonsense Mutations. , 2016, , 107-165.		1
563	Development and Use of Biotechnology Tools for Grape Functional Analysis. , 0, , .		2
564	CRISPR-Cas9 as a Powerful Tool for Efficient Creation of Oncolytic Viruses. <i>Viruses</i> , 2016, 8, 72.	1.5	30
565	Functional CRISPR screening identifies the ufmylation pathway as a regulator of SQSTM1/p62. <i>ELife</i> , 2016, 5, .	2.8	122
566	Survival and Evolution of CRISPR-Cas System in Prokaryotes and Its Applications. <i>Frontiers in Immunology</i> , 2016, 7, 375.	2.2	33
567	Defects of the Glycinergic Synapse in Zebrafish. <i>Frontiers in Molecular Neuroscience</i> , 2016, 9, 50.	1.4	10
568	iPS Cells—The Triumphs and Tribulations. <i>Dentistry Journal</i> , 2016, 4, 19.	0.9	8
569	RNA Interference in the Age of CRISPR: Will CRISPR Interfere with RNAi?. <i>International Journal of Molecular Sciences</i> , 2016, 17, 291.	1.8	68
570	Biased and Unbiased Methods for the Detection of Off-Target Cleavage by CRISPR/Cas9: An Overview. <i>International Journal of Molecular Sciences</i> , 2016, 17, 1507.	1.8	74
571	Current status of genome editing in vector mosquitoes: A review. <i>BioScience Trends</i> , 2016, 10, 424-432.	1.1	25
572	PCR-Based Seamless Genome Editing with High Efficiency and Fidelity in <i>Escherichia coli</i> . <i>PLoS ONE</i> , 2016, 11, e0149762.	1.1	9
573	Enhanced Rice Blast Resistance by CRISPR/Cas9-Targeted Mutagenesis of the ERF Transcription Factor Gene OsERF922. <i>PLoS ONE</i> , 2016, 11, e0154027.	1.1	567
574	In Vivo Modelling of ATP1A3 G316S-Induced Ataxia in <i>C. elegans</i> Using CRISPR/Cas9-Mediated Homologous Recombination Reveals Dominant Loss of Function Defects. <i>PLoS ONE</i> , 2016, 11, e0167963.	1.1	12
575	Reassessment of the Four Yield-related Genes Gn1a, DEP1, GS3, and IPA1 in Rice Using a CRISPR/Cas9 System. <i>Frontiers in Plant Science</i> , 2016, 7, 377.	1.7	375
576	Recent Advances in Genome Editing Using CRISPR/Cas9. <i>Frontiers in Plant Science</i> , 2016, 7, 703.	1.7	94



#	ARTICLE	IF	CITATIONS
577	CRISPR-Cas9: Tool for Qualitative and Quantitative Plant Genome Editing. <i>Frontiers in Plant Science</i> , 2016, 7, 1740.	1.7	65
578	DNA-Free Genetically Edited Grapevine and Apple Protoplast Using CRISPR/Cas9 Ribonucleoproteins. <i>Frontiers in Plant Science</i> , 2016, 7, 1904.	1.7	550
579	Functional Evaluations of Genes Disrupted in Patients with Tourette's Disorder. <i>Frontiers in Psychiatry</i> , 2016, 7, 11.	1.3	14
580	Genomic Disruption of VEGF-A Expression in Human Retinal Pigment Epithelial Cells Using CRISPR-Cas9 Endonuclease. , 2016, 57, 5490.		39
581	Photosynthetic Platform Strain Selection. , 2016, , 385-406.		1
582	Analyzing CRISPR genome-editing experiments with CRISPResso. <i>Nature Biotechnology</i> , 2016, 34, 695-697.	9.4	410
583	Review: Induced pluripotent stem cell models of frontotemporal dementia. <i>Neuropathology and Applied Neurobiology</i> , 2016, 42, 497-520.	1.8	8
584	Combination of the clustered regularly interspaced short palindromic repeats (CRISPR)-associated 9 technique with the piggybac transposon system for mouse in utero electroporation to study cortical development. <i>Journal of Neuroscience Research</i> , 2016, 94, 814-824.	1.3	10
585	CRISPR-DO for genome-wide CRISPR design and optimization. <i>Bioinformatics</i> , 2016, 32, 3336-3338.	1.8	46
586	Gene targeting of the transcription factor Mohawk in rats causes heterotopic ossification of Achilles tendon via failed tenogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7840-7845.	3.3	93
587	Stacking up CRISPR against RNAi for therapeutic gene inhibition. <i>FEBS Journal</i> , 2016, 283, 3249-3260.	2.2	15
588	Single-Cell-State Culture of Human Pluripotent Stem Cells Increases Transfection Efficiency. <i>BioResearch Open Access</i> , 2016, 5, 127-136.	2.6	7
589	Efficient CRISPR/Cas9-Based Genome Engineering in Human Pluripotent Stem Cells. <i>Current Protocols in Human Genetics</i> , 2016, 88, 21.4.1-21.4.23.	3.5	20
590	Gene Editing: Powerful New Tools for Nephrology Research and Therapy. <i>Journal of the American Society of Nephrology: JASN</i> , 2016, 27, 2940-2947.	3.0	22
591	Human Inducible Pluripotent Stem Cells and Autism Spectrum Disorder: Emerging Technologies. <i>Autism Research</i> , 2016, 9, 513-535.	2.1	26
592	Anti-HIV-1 potency of the CRISPR/Cas9 system insufficient to fully inhibit viral replication. <i>Microbiology and Immunology</i> , 2016, 60, 483-496.	0.7	61
593	Versatility of chemically synthesized guide RNAs for CRISPR-Cas9 genome editing. <i>Journal of Biotechnology</i> , 2016, 233, 74-83.	1.9	73
594	Applying CRISPR-Cas9 tools to identify and characterize transcriptional enhancers. <i>Nature Reviews Molecular Cell Biology</i> , 2016, 17, 597-604.	16.1	54

#	ARTICLE	IF	CITATIONS
595	Transcription activator-like effector nucleases (TALENs): An efficient tool for plant genome editing. <i>Engineering in Life Sciences</i> , 2016, 16, 330-337.	2.0	7
596	Rapid and efficient analysis of gene function using CRISPR-Cas9 in <i>Xenopus tropicalis</i> founders. <i>Genes To Cells</i> , 2016, 21, 755-771.	0.5	28
598	CRISPR-Cas9-D10A nickase-based genotypic and phenotypic screening to enhance genome editing. <i>Scientific Reports</i> , 2016, 6, 24356.	1.6	111
599	Utilising polymorphisms to achieve allele-specific genome editing in zebrafish. <i>Biology Open</i> , 2017, 6, 125-131.	0.6	19
600	Efficient Generation of Orthologous Point Mutations in Pigs via CRISPR-assisted ssODN-mediated Homology-directed Repair. <i>Molecular Therapy - Nucleic Acids</i> , 2016, 5, e396.	2.3	36
601	Advances in the Development of Gene-Targeting Vectors to Increase the Efficiency of Genetic Modification. <i>Biological and Pharmaceutical Bulletin</i> , 2016, 39, 25-32.	0.6	7
602	Targeted genome editing, an alternative tool for trait improvement in horticultural crops. <i>Horticulture Environment and Biotechnology</i> , 2016, 57, 531-543.	0.7	13
603	Safe engineering of CAR T cells for adoptive cell therapy of cancer using long-term episomal gene transfer. <i>EMBO Molecular Medicine</i> , 2016, 8, 702-711.	3.3	56
604	A Combinatorial CRISPR-Cas9 Attack on HIV-1 DNA Extinguishes All Infectious Provirus in Infected T Cell Cultures. <i>Cell Reports</i> , 2016, 17, 2819-2826.	2.9	112
605	Achieving Plant CRISPR Targeting that Limits Off-Target Effects. <i>Plant Genome</i> , 2016, 9, plantgenome2016.05.0047.	1.6	93
606	One-step generation of triple gene-targeted pigs using CRISPR/Cas9 system. <i>Scientific Reports</i> , 2016, 6, 20620.	1.6	101
607	BATCH-GE: Batch analysis of Next-Generation Sequencing data for genome editing assessment. <i>Scientific Reports</i> , 2016, 6, 30330.	1.6	82
608	Generation of TALE nickase-mediated gene-targeted cows expressing human serum albumin in mammary glands. <i>Scientific Reports</i> , 2016, 6, 20657.	1.6	15
609	Mathematical and computational analysis of CRISPR Cas9 sgRNA off-target homologies. , 2016, , .		1
610	Designed nucleases for targeted genome editing. <i>Plant Biotechnology Journal</i> , 2016, 14, 448-462.	4.1	57
611	A morphospace for synthetic organs and organoids: the possible and the actual. <i>Integrative Biology (United Kingdom)</i> , 2016, 8, 485-503.	0.6	48
612	Distinct genetic control of homologous recombination repair of Cas9-induced double-strand breaks, nicks and paired nicks. <i>Nucleic Acids Research</i> , 2016, 44, 5204-5217.	6.5	49
613	Genome Editing in Human Pluripotent Stem Cells. <i>Cold Spring Harbor Protocols</i> , 2016, 2016, pdb.top086819.	0.2	5

#	ARTICLE	IF	CITATIONS
614	Isocitrate Dehydrogenase Mutations Confer Dasatinib Hypersensitivity and SRC Dependence in Intrahepatic Cholangiocarcinoma. <i>Cancer Discovery</i> , 2016, 6, 727-739.	7.7	126
615	Gene editing and its application for hematological diseases. <i>International Journal of Hematology</i> , 2016, 104, 18-28.	0.7	24
616	CRISPR/Cas9 for Human Genome Engineering and Disease Research. <i>Annual Review of Genomics and Human Genetics</i> , 2016, 17, 131-154.	2.5	80
617	Targeted Mutagenesis of Guinea Pig Cytomegalovirus Using CRISPR/Cas9-Mediated Gene Editing. <i>Journal of Virology</i> , 2016, 90, 6989-6998.	1.5	32
618	Functional characterization of SlitPBP3 in <i>Spodoptera litura</i> by CRISPR/Cas9 mediated genome editing. <i>Insect Biochemistry and Molecular Biology</i> , 2016, 75, 1-9.	1.2	117
619	The Past, Present, and Future of Genetic Manipulation in <i>Toxoplasma gondii</i> . <i>Trends in Parasitology</i> , 2016, 32, 542-553.	1.5	36
620	Genome engineering in ophthalmology: Application of CRISPR/Cas to the treatment of eye disease. <i>Progress in Retinal and Eye Research</i> , 2016, 53, 1-20.	7.3	42
621	Lentivirus pre-packed with Cas9 protein for safer gene editing. <i>Gene Therapy</i> , 2016, 23, 627-633.	2.3	138
622	Synthetic biology approaches in cancer immunotherapy, genetic network engineering, and genome editing. <i>Integrative Biology (United Kingdom)</i> , 2016, 8, 504-517.	0.6	7
623	Immunoblot screening of CRISPR/Cas9-mediated gene knockouts without selection. <i>BMC Molecular Biology</i> , 2016, 17, 9.	3.0	8
624	An insight into the protospacer adjacent motif of <i>Streptococcus pyogenes</i> Cas9 with artificially stimulated RNA-guided-Cas9 DNA cleavage flexibility. <i>RSC Advances</i> , 2016, 6, 33514-33522.	1.7	13
625	Establishing targeted carp TLR22 gene disruption via homologous recombination using CRISPR/Cas9. <i>Developmental and Comparative Immunology</i> , 2016, 61, 242-247.	1.0	60
626	Defining and improving the genome-wide specificities of CRISPR-Cas9 nucleases. <i>Nature Reviews Genetics</i> , 2016, 17, 300-312.	7.7	380
627	Minireview: Genome Editing of Human Pluripotent Stem Cells for Modeling Metabolic Disease. <i>Molecular Endocrinology</i> , 2016, 30, 575-586.	3.7	5
628	Efficient genome editing of genes involved in neural crest development using the CRISPR/Cas9 system in <i>Xenopus</i> embryos. <i>Cell and Bioscience</i> , 2016, 6, 22.	2.1	14
629	Genome engineering - Matching supply with demand. <i>Cell Cycle</i> , 2016, 15, 1395-1396.	1.3	0
630	Simple, Efficient CRISPR-Cas9-Mediated Gene Editing in Mice: Strategies and Methods. <i>Methods in Molecular Biology</i> , 2016, 1438, 19-53.	0.4	36
631	Induced Pluripotent Stem Cells in Regenerative Medicine. , 2016, , 51-75.		2

#	ARTICLE	IF	CITATIONS
632	Fine-Tuning Next-Generation Genome Editing Tools. <i>Trends in Biotechnology</i> , 2016, 34, 562-574.	4.9	60
633	Imaging Specific Genomic DNA in Living Cells. <i>Annual Review of Biophysics</i> , 2016, 45, 1-23.	4.5	67
634	Genome Editing with CRISPR-Cas9: Can It Get Any Better?. <i>Journal of Genetics and Genomics</i> , 2016, 43, 239-250.	1.7	59
635	Characterization of Cas9's Guide RNA Orthologs. <i>Cold Spring Harbor Protocols</i> , 2016, 2016, pdb.top086793.	0.2	12
636	Applications of CRISPR/Cas9 technology for targeted mutagenesis, gene replacement and stacking of genes in higher plants. <i>Plant Cell Reports</i> , 2016, 35, 1439-1450.	2.8	49
637	Induced Pluripotent Stem Cells Meet Genome Editing. <i>Cell Stem Cell</i> , 2016, 18, 573-586.	5.2	398
638	CRISPR knockout screening outperforms shRNA and CRISPRi in identifying essential genes. <i>Nature Biotechnology</i> , 2016, 34, 631-633.	9.4	344
639	CRISPR/Cas9 for plant genome editing: accomplishments, problems and prospects. <i>Plant Cell Reports</i> , 2016, 35, 1417-1427.	2.8	72
640	Generation of Human Embryonic Stem Cell Line Expressing zsGreen in Cholinergic Neurons Using CRISPR/Cas9 System. <i>Neurochemical Research</i> , 2016, 41, 2065-2074.	1.6	7
641	CRISPR/Cas9 Platforms for Genome Editing in Plants: Developments and Applications. <i>Molecular Plant</i> , 2016, 9, 961-974.	3.9	376
642	CRISPR/Cas9 in Genome Editing and Beyond. <i>Annual Review of Biochemistry</i> , 2016, 85, 227-264.	5.0	897
643	Efficient introduction of specific homozygous and heterozygous mutations using CRISPR/Cas9. <i>Nature</i> , 2016, 533, 125-129.	13.7	738
644	Seamless site-directed mutagenesis of the <i>Saccharomyces cerevisiae</i> genome using CRISPR-Cas9. <i>Journal of Biological Engineering</i> , 2016, 10, 6.	2.0	35
645	Approaches to Inactivate Genes in Zebrafish. <i>Advances in Experimental Medicine and Biology</i> , 2016, 916, 61-86.	0.8	5
646	Breaking-Cas' interactive design of guide RNAs for CRISPR-Cas experiments for ENSEMBL genomes. <i>Nucleic Acids Research</i> , 2016, 44, W267-W271.	6.5	166
647	Genetic treatment of a molecular disorder: gene therapy approaches to sickle cell disease. <i>Blood</i> , 2016, 127, 839-848.	0.6	138
648	A genome editing primer for the hematologist. <i>Blood</i> , 2016, 127, 2525-2535.	0.6	23
649	CRISPR/Cas9 nuclease cleavage enables marker-free genome editing in <i>Escherichia coli</i> : A sequential study. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2016, 68, 31-39.	2.7	7

#	ARTICLE	IF	CITATIONS
650	Cas9-Mediated Genome Engineering in <i>Drosophila melanogaster</i> . Cold Spring Harbor Protocols, 2016, 2016, pdb.top086843.	0.2	18
651	Delivery of RNA-based molecules to human hematopoietic stem and progenitor cells for modulation of gene expression. Experimental Hematology, 2016, 44, 991-1001.	0.2	4
652	Wnt-signalling pathways and microRNAs network in carcinogenesis: experimental and bioinformatics approaches. Molecular Cancer, 2016, 15, 56.	7.9	55
653	An Efficient Targeted Mutagenesis System Using CRISPR/Cas in Monocotyledons. Current Protocols in Plant Biology, 2016, 1, 329-344.	2.8	9
654	Applications of CRISPR Genome Engineering in Cell Biology. Trends in Cell Biology, 2016, 26, 875-888.	3.6	68
655	Patterns of CRISPR/Cas9 activity in plants, animals and microbes. Plant Biotechnology Journal, 2016, 14, 2203-2216.	4.1	141
656	Efficient production of biallelic <i>GGTA1</i> knockout pigs by cytoplasmic microinjection of CRISPR/Cas9 into zygotes. Xenotransplantation, 2016, 23, 338-346.	1.6	95
657	Guide RNA engineering for versatile Cas9 functionality. Nucleic Acids Research, 2016, 44, gkw908.	6.5	55
658	GFRA2 Identifies Cardiac Progenitors and Mediates Cardiomyocyte Differentiation in a RET-Independent Signaling Pathway. Cell Reports, 2016, 16, 1026-1038.	2.9	32
659	Genetic disruption of the <i>KLF1</i> gene to overexpress the $\beta$ -globin gene using the CRISPR/Cas9 system. Journal of Gene Medicine, 2016, 18, 294-301.	1.4	41
660	CRISPR-Cas: biology, mechanisms and relevance. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150496.	1.8	308
661	The zebrafish genome editing toolkit. Methods in Cell Biology, 2016, 135, 149-170.	0.5	35
662	Genetic Engineering of Plants Using Zn Fingers, TALENs, and CRISPRs. , 2016, , 187-201.		2
663	Genome-Editing Technologies: Principles and Applications. Cold Spring Harbor Perspectives in Biology, 2016, 8, a023754.	2.3	209
664	From Mendel's discovery on pea to today's plant genetics and breeding. Theoretical and Applied Genetics, 2016, 129, 2267-2280.	1.8	26
665	Generation of <i>RUNX3</i> knockout pigs using CRISPR/Cas9-mediated gene targeting. Reproduction in Domestic Animals, 2016, 51, 970-978.	0.6	28
666	CRISPR-Cas9 gene editing: Delivery aspects and therapeutic potential. Journal of Controlled Release, 2016, 244, 139-148.	4.8	52
667	Methods for Optimizing CRISPR-Cas9 Genome Editing Specificity. Molecular Cell, 2016, 63, 355-370.	4.5	247

#	ARTICLE	IF	CITATIONS
668	Cas9 cleavage assay for pre-screening of sgRNAs using nicking triggered isothermal amplification. <i>Chemical Science</i> , 2016, 7, 4951-4957.	3.7	55
669	Genome editing comes of age. <i>Nature Protocols</i> , 2016, 11, 1573-1578.	5.5	85
670	Working with Stem Cells. , 2016, , .		2
671	A Cas9 Variant for Efficient Generation of Indel-Free Knockin or Gene-Corrected Human Pluripotent Stem Cells. <i>Stem Cell Reports</i> , 2016, 7, 508-517.	2.3	88
673	Genome Editing in Stem Cells. , 2016, , 287-309.		0
674	Genome editing in nonhuman primates: approach to generating human disease models. <i>Journal of Internal Medicine</i> , 2016, 280, 246-251.	2.7	45
675	Development of broad virus resistance in non-transgenic cucumber using CRISPR/Cas9 technology. <i>Molecular Plant Pathology</i> , 2016, 17, 1140-1153.	2.0	666
676	Homology-Independent Integration of Plasmid DNA into the Zebrafish Genome. <i>Methods in Molecular Biology</i> , 2016, 1451, 31-51.	0.4	4
677	Genetic Engineering in Stem Cell Biomanufacturing. , 2016, , 1-25.		0
678	CRISPR/Cas-Mediated Site-Specific Mutagenesis in <i>Arabidopsis thaliana</i> Using Cas9 Nucleases and Paired Nickases. <i>Methods in Molecular Biology</i> , 2016, 1469, 111-122.	0.4	27
679	At the Conflux of Human Genome Engineering and Induced Pluripotency. , 2016, , 45-64.		1
681	Tissue-specific gene targeting using CRISPR/Cas9. <i>Methods in Cell Biology</i> , 2016, 135, 189-202.	0.5	25
682	Chromosome and Genomic Engineering in Plants. <i>Methods in Molecular Biology</i> , 2016, , .	0.4	0
683	CRISPR technologies for bacterial systems: Current achievements and future directions. <i>Biotechnology Advances</i> , 2016, 34, 1180-1209.	6.0	124
684	Genome Editing with Targetable Nucleases. , 2016, , 1-29.		0
685	CRISPR/Cas9 and the Paradigm Shift in Mouse Genome Manipulation Technologies. , 2016, , 65-77.		3
686	A programmable Cas9-serine recombinase fusion protein that operates on DNA sequences in mammalian cells. <i>Nucleic Acids Research</i> , 2016, 44, gkw707.	6.5	46
687	Comprehensive Protocols for CRISPR/Cas9-based Gene Editing in Human Pluripotent Stem Cells. <i>Current Protocols in Stem Cell Biology</i> , 2016, 38, 5B.6.1-5B.6.60.	3.0	26

#	ARTICLE	IF	CITATIONS
688	CRISPR/cas9, a novel genomic tool to knock down microRNA in vitro and in vivo. <i>Scientific Reports</i> , 2016, 6, 22312.	1.6	174
689	Mammalian cells lacking either the cotranslational or posttranslocational oligosaccharyltransferase complex display substrate-dependent defects in asparagine linked glycosylation. <i>Scientific Reports</i> , 2016, 6, 20946.	1.6	79
690	Immunogenomic engineering of a plug-and-(dis)play hybridoma platform. <i>Nature Communications</i> , 2016, 7, 12535.	5.8	50
691	Targeted mutagenesis in chicken using CRISPR/Cas9 system. <i>Scientific Reports</i> , 2016, 6, 23980.	1.6	178
692	Novel HDAd/EBV Reprogramming Vector and Highly Efficient Ad/CRISPR-Cas Sickle Cell Disease Gene Correction. <i>Scientific Reports</i> , 2016, 6, 30422.	1.6	30
693	In vivo mutagenesis of miRNA gene families using a scalable multiplexed CRISPR/Cas9 nuclease system. <i>Scientific Reports</i> , 2016, 6, 32386.	1.6	32
694	Development of Commercial Thermo-sensitive Genic Male Sterile Rice Accelerates Hybrid Rice Breeding Using the CRISPR/Cas9-mediated TMS5 Editing System. <i>Scientific Reports</i> , 2016, 6, 37395.	1.6	183
695	Novel Functional Genomics Approaches: A Promising Future in the Combat Against Plant Viruses. <i>Phytopathology</i> , 2016, 106, 1231-1239.	1.1	17
696	Systems Metabolic Engineering of <i>Escherichia coli</i> . <i>EcoSal Plus</i> , 2016, 7, .	2.1	31
697	CRISPR-Cas9 technology and its application in haematological disorders. <i>British Journal of Haematology</i> , 2016, 175, 208-225.	1.2	22
698	A chemical-inducible CRISPR-Cas9 system for rapid control of genome editing. <i>Nature Chemical Biology</i> , 2016, 12, 980-987.	3.9	176
699	Modeling intratumor heterogeneity through CRISPR-barcodes. <i>Molecular and Cellular Oncology</i> , 2016, 3, e1227894.	0.3	3
700	An easy and efficient inducible CRISPR/Cas9 platform with improved specificity for multiple gene targeting. <i>Nucleic Acids Research</i> , 2016, 44, gkw660.	6.5	158
701	Methods of genome engineering: a new era of molecular biology. <i>Biochemistry (Moscow)</i> , 2016, 81, 662-677.	0.7	7
702	Practical Considerations for Using Pooled Lentiviral CRISPR Libraries. <i>Current Protocols in Molecular Biology</i> , 2016, 115, 31.5.1-31.5.13.	2.9	14
703	CRISPR/Cas9 activity in the rice OsBE1b gene does not induce off-target effects in the closely related paralog OsBE1a. <i>Molecular Breeding</i> , 2016, 36, 1.	1.0	45
704	The genome editing revolution: A CRISPR-Cas TALE off-target story. <i>BioEssays</i> , 2016, 38, S4-S13.	1.2	51
705	The genome editing revolution: A CRISPR-Cas TALE off-target story. <i>Inside the Cell</i> , 2016, 1, 7-16.	0.4	0

#	ARTICLE	IF	CITATIONS
706	CRISPR-Barcoding for Intratumor Genetic Heterogeneity Modeling and Functional Analysis of Oncogenic Driver Mutations. <i>Molecular Cell</i> , 2016, 63, 526-538.	4.5	58
707	CRISPR/Cas9-Mediated Correction of the Sickle Mutation in Human CD34+ cells. <i>Molecular Therapy</i> , 2016, 24, 1561-1569.	3.7	157
708	Transient Tcf3 Gene Repression by TALE-Transcription Factor Targeting. <i>Applied Biochemistry and Biotechnology</i> , 2016, 180, 1559-1573.	1.4	3
709	Desktop Genetics. <i>Personalized Medicine</i> , 2016, 13, 517-521.	0.8	21
710	CRISPR/Cas9 in locusts: Successful establishment of an olfactory deficiency line by targeting the mutagenesis of an odorant receptor co-receptor (Orco). <i>Insect Biochemistry and Molecular Biology</i> , 2016, 79, 27-35.	1.2	119
711	Diving into marine genomics with CRISPR/Cas9 systems. <i>Marine Genomics</i> , 2016, 30, 55-65.	0.4	29
712	Genome editing: the road of CRISPR/Cas9 from bench to clinic. <i>Experimental and Molecular Medicine</i> , 2016, 48, e265-e265.	3.2	74
713	Efficient generation of FVII gene knockout mice using CRISPR/Cas9 nuclease and truncated guided RNAs. <i>Scientific Reports</i> , 2016, 6, 25199.	1.6	10
714	Delivery methods for site-specific nucleases: Achieving the full potential of therapeutic gene editing. <i>Journal of Controlled Release</i> , 2016, 244, 83-97.	4.8	17
715	Efficient Generation of Myostatin Gene Mutated Rabbit by CRISPR/Cas9. <i>Scientific Reports</i> , 2016, 6, 25029.	1.6	102
716	Generation and evaluation of Myostatin knock-out rabbits and goats using CRISPR/Cas9 system. <i>Scientific Reports</i> , 2016, 6, 29855.	1.6	71
717	The clustered regularly interspaced short palindromic repeats/associated proteins system for the induction of gene mutations and phenotypic changes in <i>Bombyx mori</i> . <i>Acta Biochimica Et Biophysica Sinica</i> , 2016, 48, 1112-1119.	0.9	3
718	Systematic quantification of HDR and NHEJ reveals effects of locus, nuclease, and cell type on genome-editing. <i>Scientific Reports</i> , 2016, 6, 23549.	1.6	202
719	Investigation of the functional role of human Interleukin-8 gene haplotypes by CRISPR/Cas9 mediated genome editing. <i>Scientific Reports</i> , 2016, 6, 31180.	1.6	35
720	Re-visiting the Protamine-2 locus: deletion, but not haploinsufficiency, renders male mice infertile. <i>Scientific Reports</i> , 2016, 6, 36764.	1.6	48
721	Selection-free genome editing of the sickle mutation in human adult hematopoietic stem/progenitor cells. <i>Science Translational Medicine</i> , 2016, 8, 360ra134.	5.8	386
722	Selection of highly efficient sgRNAs for CRISPR/Cas9-based plant genome editing. <i>Scientific Reports</i> , 2016, 6, 21451.	1.6	167
723	Rheumatoid arthritis: identifying and characterising polymorphisms using rat models. <i>DMM Disease Models and Mechanisms</i> , 2016, 9, 1111-1123.	1.2	29



#	ARTICLE	IF	CITATIONS
724	A CRISPR-based approach for targeted DNA demethylation. <i>Cell Discovery</i> , 2016, 2, 16009.	3.1	325
725	CRISPR/Cas9-mediated efficient targeted mutagenesis in Chardonnay ( <i>Vitis vinifera</i> L.). <i>Scientific Reports</i> , 2016, 6, 32289.	1.6	239
726	CRISPR RNA-guided FokI nucleases repair a PAH variant in a phenylketonuria model. <i>Scientific Reports</i> , 2016, 6, 35794.	1.6	22
727	Precision Modulation of Neurodegenerative Disease-Related Gene Expression in Human iPSC-Derived Neurons. <i>Scientific Reports</i> , 2016, 6, 28420.	1.6	67
728	Increasing the Efficiency of CRISPR/Cas9-mediated Precise Genome Editing of HSV-1 Virus in Human Cells. <i>Scientific Reports</i> , 2016, 6, 34531.	1.6	73
729	Real-time observation of DNA recognition and rejection by the RNA-guided endonuclease Cas9. <i>Nature Communications</i> , 2016, 7, 12778.	5.8	221
730	Multigene disruption in undomesticated <i>Bacillus subtilis</i> ATCC 6051a using the CRISPR/Cas9 system. <i>Scientific Reports</i> , 2016, 6, 27943.	1.6	90
731	The 14th Ile residue is essential for Leptin function in regulating energy homeostasis in rat. <i>Scientific Reports</i> , 2016, 6, 28508.	1.6	9
732	Targeting cellular mRNAs translation by CRISPR-Cas9. <i>Scientific Reports</i> , 2016, 6, 29652.	1.6	19
733	Efficient and transgene-free genome editing in wheat through transient expression of CRISPR/Cas9 DNA or RNA. <i>Nature Communications</i> , 2016, 7, 12617.	5.8	710
734	CRISPR/Cas9-mediated efficient and heritable targeted mutagenesis in tomato plants in the first and later generations. <i>Scientific Reports</i> , 2016, 6, 24765.	1.6	303
735	Different Effects of sgRNA Length on CRISPR-mediated Gene Knockout Efficiency. <i>Scientific Reports</i> , 2016, 6, 28566.	1.6	77
736	CRISPR/Cas9 Targets Chicken Embryonic Somatic Cells In Vitro and In Vivo and generates Phenotypic Abnormalities. <i>Scientific Reports</i> , 2016, 6, 34524.	1.6	22
737	Antiestrogen Resistant Cell Lines Expressing Estrogen Receptor $\beta$ Mutations Upregulate the Unfolded Protein Response and are Killed by BHPI. <i>Scientific Reports</i> , 2016, 6, 34753.	1.6	50
738	CRISPR/Cas9-mediated GJA8 knockout in rabbits recapitulates human congenital cataracts. <i>Scientific Reports</i> , 2016, 6, 22024.	1.6	54
739	Exome sequencing in the knockin mice generated using the CRISPR/Cas system. <i>Scientific Reports</i> , 2016, 6, 34703.	1.6	34
740	Simultaneous generation of multi-gene knockouts in human cells. <i>FEBS Letters</i> , 2016, 590, 4343-4353.	1.3	10
741	A "suicide" CRISPR-Cas9 system to promote gene deletion and restoration by electroporation in <i>Cryptococcus neoformans</i> . <i>Scientific Reports</i> , 2016, 6, 31145.	1.6	80

#	ARTICLE	IF	CITATIONS
742	Nucleosomes Selectively Inhibit Cas9 Off-target Activity at a Site Located at the Nucleosome Edge. <i>Journal of Biological Chemistry</i> , 2016, 291, 24851-24856.	1.6	21
743	Clustered Regularly Interspaced Short Palindromic Repeats. <i>Asia-Pacific Journal of Ophthalmology</i> , 2016, 5, 304-308.	1.3	6
744	The use of CRISPR/Cas associated technologies for cell transplant applications. <i>Current Opinion in Organ Transplantation</i> , 2016, 21, 461-466.	0.8	20
745	Reactivating Fetal Hemoglobin Expression in Human Adult Erythroblasts Through BCL11A Knockdown Using Targeted Endonucleases. <i>Molecular Therapy - Nucleic Acids</i> , 2016, 5, e351.	2.3	45
746	Control and Eradication Strategies of Hepatitis B Virus. <i>Trends in Microbiology</i> , 2016, 24, 739-749.	3.5	42
747	Genome editing and the next generation of antiviral therapy. <i>Human Genetics</i> , 2016, 135, 1071-1082.	1.8	40
748	Detecting Single-Nucleotide Substitutions Induced by Genome Editing. <i>Cold Spring Harbor Protocols</i> , 2016, 2016, pdb.top090845.	0.2	6
749	Gene correction in patient-specific iPSCs for therapy development and disease modeling. <i>Human Genetics</i> , 2016, 135, 1041-1058.	1.8	34
750	T-cell therapies for HIV: Preclinical successes and current clinical strategies. <i>Cytotherapy</i> , 2016, 18, 931-942.	0.3	36
751	RNA therapeutics – The potential treatment for myocardial infarction. <i>Regenerative Therapy</i> , 2016, 4, 83-91.	1.4	5
752	Treating hemoglobinopathies using gene-correction approaches: promises and challenges. <i>Human Genetics</i> , 2016, 135, 993-1010.	1.8	13
753	Insert, remove or replace: A highly advanced genome editing system using CRISPR/Cas9. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2016, 1863, 2333-2344.	1.9	112
754	Engineering cell-based therapies to interface robustly with host physiology. <i>Advanced Drug Delivery Reviews</i> , 2016, 105, 55-65.	6.6	18
755	Spermatogonial stem cell autotransplantation and germline genomic editing: a future cure for spermatogenic failure and prevention of transmission of genomic diseases. <i>Human Reproduction Update</i> , 2016, 22, 561-573.	5.2	59
757	CHOPCHOP v2: a web tool for the next generation of CRISPR genome engineering. <i>Nucleic Acids Research</i> , 2016, 44, W272-W276.	6.5	801
758	Roles of Wnt pathway genes <i>wls</i> , <i>wnt9a</i> , <i>wnt5b</i> , <i>frzb</i> and <i>gpc4</i> in regulating convergent-extension during palate morphogenesis. <i>Development (Cambridge)</i> , 2016, 143, 2541-7.	1.2	38
759	Functional validation of cadherin as a receptor of Bt toxin Cry1Ac in <i>Helicoverpa armigera</i> utilizing the CRISPR/Cas9 system. <i>Insect Biochemistry and Molecular Biology</i> , 2016, 76, 11-17.	1.2	121
760	Cellular Therapies: Gene Editing and Next-Gen CAR T Cells. , 2016, , 203-247.		1

#	ARTICLE	IF	CITATIONS
761	Off-target effects of engineered nucleases. <i>FEBS Journal</i> , 2016, 283, 3239-3248.	2.2	71
762	Engineering Synthetic Gene Circuits in Living Cells with CRISPR Technology. <i>Trends in Biotechnology</i> , 2016, 34, 535-547.	4.9	111
763	High-throughput mapping of regulatory DNA. <i>Nature Biotechnology</i> , 2016, 34, 167-174.	9.4	217
764	Multi-reporter selection for the design of active and more specific zinc-finger nucleases for genome editing. <i>Nature Communications</i> , 2016, 7, 10194.	5.8	15
765	Salient Features of Endonuclease Platforms for Therapeutic Genome Editing. <i>Molecular Therapy</i> , 2016, 24, 422-429.	3.7	13
766	The <i>Neisseria meningitidis</i> CRISPR-Cas9 System Enables Specific Genome Editing in Mammalian Cells. <i>Molecular Therapy</i> , 2016, 24, 645-654.	3.7	190
767	Enhanced genome editing in mammalian cells with a modified dual-fluorescent surrogate system. <i>Cellular and Molecular Life Sciences</i> , 2016, 73, 2543-2563.	2.4	39
768	Genome-editing Technologies for Gene and Cell Therapy. <i>Molecular Therapy</i> , 2016, 24, 430-446.	3.7	523
769	Expanding the CRISPR imaging toolset with <i>Staphylococcus aureus</i> Cas9 for simultaneous imaging of multiple genomic loci. <i>Nucleic Acids Research</i> , 2016, 44, e75-e75.	6.5	155
770	Heptad-Specific Phosphorylation of RNA Polymerase II CTD. <i>Molecular Cell</i> , 2016, 61, 305-314.	4.5	118
771	D-repeat in the <i>XIST</i> gene is required for X chromosome inactivation. <i>RNA Biology</i> , 2016, 13, 172-176.	1.5	24
772	Genome-wide target specificities of CRISPR-Cas9 nucleases revealed by multiplex Digenome-seq. <i>Genome Research</i> , 2016, 26, 406-415.	2.4	184
773	<i>In vivo</i> blunt-end cloning through CRISPR/Cas9-facilitated non-homologous end-joining. <i>Nucleic Acids Research</i> , 2016, 44, e76-e76.	6.5	77
774	Optimized sgRNA design to maximize activity and minimize off-target effects of CRISPR-Cas9. <i>Nature Biotechnology</i> , 2016, 34, 184-191.	9.4	3,168
775	Highly efficient generation of biallelic reporter gene knock-in mice via CRISPR-mediated genome editing of ESCs. <i>Protein and Cell</i> , 2016, 7, 152-156.	4.8	7
776	<i>Streptococcus thermophilus</i> CRISPR-Cas9 Systems Enable Specific Editing of the Human Genome. <i>Molecular Therapy</i> , 2016, 24, 636-644.	3.7	204
777	Beyond editing: repurposing CRISPR-Cas9 for precision genome regulation and interrogation. <i>Nature Reviews Molecular Cell Biology</i> , 2016, 17, 5-15.	16.1	698
778	GEMMs addressing Pax5 loss-of-function in childhood pB-ALL. <i>European Journal of Medical Genetics</i> , 2016, 59, 166-172.	0.7	5

#	ARTICLE	IF	CITATIONS
779	The Use and Development of TAL Effector Nucleases. <i>Advances in Experimental Medicine and Biology</i> , 2016, , 29-50.	0.8	1
780	Genome Editing for Neuromuscular Diseases. <i>Advances in Experimental Medicine and Biology</i> , 2016, , 51-79.	0.8	2
781	Potential pitfalls of CRISPR/Cas9-mediated genome editing. <i>FEBS Journal</i> , 2016, 283, 1218-1231.	2.2	196
782	Efficient identification of CRISPR/Cas9-induced insertions/deletions by direct germline screening in zebrafish. <i>BMC Genomics</i> , 2016, 17, 259.	1.2	31
783	CRISPR library designer (CLD): software for multispecies design of single guide RNA libraries. <i>Genome Biology</i> , 2016, 17, 55.	3.8	68
784	Engineering large animal models of human disease. <i>Journal of Pathology</i> , 2016, 238, 247-256.	2.1	119
785	Using RNA as Molecular Code for Programming Cellular Function. <i>ACS Synthetic Biology</i> , 2016, 5, 795-809.	1.9	49
786	Tandem repeat knockout utilizing the CRISPR/Cas9 system in human cells. <i>Gene</i> , 2016, 582, 122-127.	1.0	4
787	Efficient Genome Editing in Chicken DF-1 Cells Using the CRISPR/Cas9 System. <i>G3: Genes, Genomes, Genetics</i> , 2016, 6, 917-923.	0.8	23
788	Efficiency and Inheritance of Targeted Mutagenesis in Maize Using CRISPR-Cas9. <i>Journal of Genetics and Genomics</i> , 2016, 43, 25-36.	1.7	171
789	Use of human stem cells in Huntington disease modeling and translational research. <i>Experimental Neurology</i> , 2016, 278, 76-90.	2.0	30
790	Therapeutic genome editing by combined viral and non-viral delivery of CRISPR system components in vivo. <i>Nature Biotechnology</i> , 2016, 34, 328-333.	9.4	732
791	Interspecies chimeric complementation for the generation of functional human tissues and organs in large animal hosts. <i>Transgenic Research</i> , 2016, 25, 375-384.	1.3	16
792	Gene editing technology as an approach to the treatment of liver diseases. <i>Expert Opinion on Biological Therapy</i> , 2016, 16, 595-608.	1.4	15
793	New Transformation Technologies for Trees. <i>Forestry Sciences</i> , 2016, , 31-66.	0.4	2
794	Metabolic Engineering of Probiotic <i>Saccharomyces boulardii</i> . <i>Applied and Environmental Microbiology</i> , 2016, 82, 2280-2287.	1.4	68
795	Targeted Gene Manipulation in Plants Using the CRISPR/Cas Technology. <i>Journal of Genetics and Genomics</i> , 2016, 43, 251-262.	1.7	57
796	Targeted genome engineering using designer nucleases: State of the art and practical guidance for application in human pluripotent stem cells. <i>Stem Cell Research</i> , 2016, 16, 377-386.	0.3	21

#	ARTICLE	IF	CITATIONS
797	Correction of the auditory phenotype in C57BL/6N mice via CRISPR/Cas9-mediated homology directed repair. <i>Genome Medicine</i> , 2016, 8, 16.	3.6	113
799	Chemical Biology Approaches to Genome Editing: Understanding, Controlling, and Delivering Programmable Nucleases. <i>Cell Chemical Biology</i> , 2016, 23, 57-73.	2.5	42
800	Kinetics of the CRISPR-Cas9 effector complex assembly and the role of 3' terminal segment of guide RNA. <i>Nucleic Acids Research</i> , 2016, 44, 2837-2845.	6.5	71
801	Precision Targeted Mutagenesis via Cas9 Paired Nickases in Rice. <i>Plant and Cell Physiology</i> , 2016, 57, 1058-1068.	1.5	87
802	Quantitative CRISPR interference screens in yeast identify chemical-genetic interactions and new rules for guide RNA design. <i>Genome Biology</i> , 2016, 17, 45.	3.8	165
803	CRISPR-Based Methods for <i>Caenorhabditis elegans</i> Genome Engineering. <i>Genetics</i> , 2016, 202, 885-901.	1.2	258
804	Advances in identification and validation of protein targets of natural products without chemical modification. <i>Natural Product Reports</i> , 2016, 33, 719-730.	5.2	96
805	Strategies to Determine Off-Target Effects of Engineered Nucleases. <i>Advances in Experimental Medicine and Biology</i> , 2016, , 187-222.	0.8	0
806	Engineered Nucleases and Trinucleotide Repeat Diseases. <i>Advances in Experimental Medicine and Biology</i> , 2016, , 139-159.	0.8	0
807	The Development and Use of Zinc-Finger Nucleases. <i>Advances in Experimental Medicine and Biology</i> , 2016, , 15-28.	0.8	2
808	Structure of the Sec61 channel opened by a signal sequence. <i>Science</i> , 2016, 351, 88-91.	6.0	198
809	CRISPR/Cas9 advances engineering of microbial cell factories. <i>Metabolic Engineering</i> , 2016, 34, 44-59.	3.6	179
810	Applications of genome editing in insects. <i>Current Opinion in Insect Science</i> , 2016, 13, 43-54.	2.2	58
811	High content analysis platform for optimization of lipid mediated CRISPR-Cas9 delivery strategies in human cells. <i>Acta Biomaterialia</i> , 2016, 34, 143-158.	4.1	25
812	Genome Editing in Human Pluripotent Stem Cells: Approaches, Pitfalls, and Solutions. <i>Cell Stem Cell</i> , 2016, 18, 53-65.	5.2	96
813	Nuclease Target Site Selection for Maximizing On-target Activity and Minimizing Off-target Effects in Genome Editing. <i>Molecular Therapy</i> , 2016, 24, 475-487.	3.7	100
814	High-fidelity CRISPR-Cas9 nucleases with no detectable genome-wide off-target effects. <i>Nature</i> , 2016, 529, 490-495.	13.7	2,126
815	Creating and evaluating accurate CRISPR-Cas9 scalpels for genomic surgery. <i>Nature Methods</i> , 2016, 13, 41-50.	9.0	99

#	ARTICLE	IF	CITATIONS
816	New and Improved Techniques for the Study of Pathogenic Fungi. Trends in Microbiology, 2016, 24, 35-50.	3.5	39
817	Efficient Targeted Genome Modification in Maize Using CRISPR/Cas9 System. Journal of Genetics and Genomics, 2016, 43, 37-43.	1.7	137
818	Synthetic Biology. , 2016, , .		7
819	Synthetic Genome Technologies. , 2016, , 185-194.		0
820	Rationally engineered Cas9 nucleases with improved specificity. Science, 2016, 351, 84-88.	6.0	1,948
821	Safety Lead Optimization and Candidate Identification: Integrating New Technologies into Decision-Making. Chemical Research in Toxicology, 2016, 29, 452-472.	1.7	24
822	Personalized Medicine: Cell and Gene Therapy Based on Patient-Specific iPSC-Derived Retinal Pigment Epithelium Cells. Advances in Experimental Medicine and Biology, 2016, 854, 549-555.	0.8	26
823	Functional Restoration of gp91phox-Oxidase Activity by BAC Transgenesis and Gene Targeting in X-linked Chronic Granulomatous Disease iPSCs. Molecular Therapy, 2016, 24, 812-822.	3.7	22
824	Origins of Programmable Nucleases for Genome Engineering. Journal of Molecular Biology, 2016, 428, 963-989.	2.0	239
825	Synthetic Biology. , 2016, , .		2
826	Efficient genomic correction methods in human iPS cells using CRISPR/Cas9 system. Methods, 2016, 101, 27-35.	1.9	54
827	Silent IL2RG Gene Editing in Human Pluripotent Stem Cells. Molecular Therapy, 2016, 24, 582-591.	3.7	8
828	Advances in therapeutic CRISPR/Cas9 genome editing. Translational Research, 2016, 168, 15-21.	2.2	176
829	Designer Nuclease-Mediated Generation of Knockout THP1 Cells. Methods in Molecular Biology, 2016, 1338, 261-272.	0.4	22
830	Plant-pathogen interactions: toward development of next-generation disease-resistant plants. Critical Reviews in Biotechnology, 2017, 37, 229-237.	5.1	62
831	CRISPR-Cas9 technology: applications and human disease modelling. Briefings in Functional Genomics, 2017, 16, 4-12.	1.3	48
832	Applications of the CRISPR/Cas9 system in murine cancer modeling. Briefings in Functional Genomics, 2017, 16, 25-33.	1.3	12
833	Targeted genome regulation via synthetic programmable transcriptional regulators. Critical Reviews in Biotechnology, 2017, 37, 429-440.	5.1	22

#	ARTICLE	IF	CITATIONS
834	TALENs and CRISPR/Cas9 fuel genetically engineered clinically relevant <i>Xenopus tropicalis</i> tumor models. <i>Genesis</i> , 2017, 55, e23005.	0.8	25
835	Profiling single-guide RNA specificity reveals a mismatch sensitive core sequence. <i>Scientific Reports</i> , 2017, 7, 40638.	1.6	79
836	Fully Automated One-Step Synthesis of Single-Transcript TALEN Pairs Using a Biological Foundry. <i>ACS Synthetic Biology</i> , 2017, 6, 678-685.	1.9	46
837	Fumarylacetoacetate Hydrolase Knock-out Rabbit Model for Hereditary Tyrosinemia Type 1. <i>Journal of Biological Chemistry</i> , 2017, 292, 4755-4763.	1.6	15
838	CRISPR/Cas9 Editing of the Mutant Huntingtin Allele In Vitro and In Vivo. <i>Molecular Therapy</i> , 2017, 25, 12-23.	3.7	226
839	Single Cas9 nickase induced generation of NRAMP1 knockin cattle with reduced off-target effects. <i>Genome Biology</i> , 2017, 18, 13.	3.8	155
840	Cas9, Cpf1 and C2c1/2 – What's next?. <i>Bioengineered</i> , 2017, 8, 265-273.	1.4	80
841	Editorial: Seeing is not always believing: lessons from knockout mice. <i>Journal of Leukocyte Biology</i> , 2017, 101, 353-356.	1.5	4
842	Cas9 Ribonucleoprotein Delivery via Microfluidic Cell Deformation Chip for Human Cell Genome Editing and Immunotherapy. <i>Advanced Biology</i> , 2017, 1, e1600007.	3.0	36
843	Challenges for Sensitive Quantification of Gene Editing – Off-Target Activity. <i>Small Methods</i> , 2017, 1, 1600062.	4.6	0
844	Transgenic Clustered Regularly Interspaced Short Palindromic Repeat/Cas9-Mediated Viral Gene Targeting for Antiviral Therapy of <i>Bombyx mori</i> Nucleopolyhedrovirus. <i>Journal of Virology</i> , 2017, 91, .	1.5	57
845	CRISPR/Cas9-Induced (CTG <sub>n</sub> CAG) Repeat Instability in the Myotonic Dystrophy Type 1 Locus: Implications for Therapeutic Genome Editing. <i>Molecular Therapy</i> , 2017, 25, 24-43.	3.7	108
846	Knock-in strategy at 3' end of <i>Crx</i> gene by CRISPR/Cas9 system shows the gene expression profiles during human photoreceptor differentiation. <i>Genes To Cells</i> , 2017, 22, 250-264.	0.5	9
847	Genome reprogramming for synthetic biology. <i>Frontiers of Chemical Science and Engineering</i> , 2017, 11, 37-45.	2.3	5
848	CRISPR knockout rat cytochrome P450 3A1/2 model for advancing drug metabolism and pharmacokinetics research. <i>Scientific Reports</i> , 2017, 7, 42922.	1.6	41
849	Targeted RP9 ablation and mutagenesis in mouse photoreceptor cells by CRISPR-Cas9. <i>Scientific Reports</i> , 2017, 7, 43062.	1.6	20
850	A stable but reversible integrated surrogate reporter for assaying CRISPR/Cas9-stimulated homology-directed repair. <i>Journal of Biological Chemistry</i> , 2017, 292, 6148-6162.	1.6	13
851	Organoid technologies meet genome engineering. <i>EMBO Reports</i> , 2017, 18, 367-376.	2.0	52

#	ARTICLE	IF	CITATIONS
852	Optimization of the production of knock-in alleles by CRISPR/Cas9 microinjection into the mouse zygote. <i>Scientific Reports</i> , 2017, 7, 42661.	1.6	59
853	A fast and reliable strategy to generate TALEN-mediated gene knockouts in the diatom <i>Phaeodactylum tricornutum</i> . <i>Algal Research</i> , 2017, 23, 186-195.	2.4	57
854	CRISPR/Cas9 Gene Drive: Growing Pains for a New Technology. <i>Genetics</i> , 2017, 205, 1037-1039.	1.2	14
855	Cre/lox-Recombinase-Mediated Cassette Exchange for Reversible Site-Specific Genomic Targeting of the Disease Vector, <i>Aedes aegypti</i> . <i>Scientific Reports</i> , 2017, 7, 43883.	1.6	19
856	Cas9-mediated genome editing in the methanogenic archaeon <i>Methanosarcina acetivorans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2976-2981.	3.3	107
857	The Impact of DNA Topology and Guide Length on Target Selection by a Cytosine-Specific Cas9. <i>ACS Synthetic Biology</i> , 2017, 6, 1103-1113.	1.9	27
858	Cellular and Circuitry Bases of Autism: Lessons Learned from the Temporospatial Manipulation of Autism Genes in the Brain. <i>Neuroscience Bulletin</i> , 2017, 33, 205-218.	1.5	13
859	Modern Genome Editing Technologies in Huntington's Disease Research. <i>Journal of Huntington's Disease</i> , 2017, 6, 19-31.	0.9	20
860	Gene editing in mouse zygotes using the CRISPR/Cas9 system. <i>Methods</i> , 2017, 121-122, 55-67.	1.9	49
861	Promoting Cas9 degradation reduces mosaic mutations in non-human primate embryos. <i>Scientific Reports</i> , 2017, 7, 42081.	1.6	106
862	Creation of gene-specific rice mutants by AvrXa23-based TALENs. <i>Journal of Integrative Agriculture</i> , 2017, 16, 424-434.	1.7	3
863	Epigenetic Editing of Ascl1 Gene in Neural Stem Cells by Optogenetics. <i>Scientific Reports</i> , 2017, 7, 42047.	1.6	45
864	Gene Editing With CRISPR/Cas9 RNA-Directed Nuclease. <i>Circulation Research</i> , 2017, 120, 876-894.	2.0	61
865	Genome editing: The efficient tool CRISPR-Cpf1. <i>Nature Plants</i> , 2017, 3, 17028.	4.7	29
866	A high-efficiency CRISPR/Cas9 system for targeted mutagenesis in Cotton ( <i>Gossypium hirsutum</i> L.). <i>Scientific Reports</i> , 2017, 7, 43902.	1.6	121
867	Targeted mutagenesis in the medicinal plant <i>Salvia miltiorrhiza</i> . <i>Scientific Reports</i> , 2017, 7, 43320.	1.6	123
868	In Vivo Delivery of CRISPR/Cas9 for Therapeutic Gene Editing: Progress and Challenges. <i>Bioconjugate Chemistry</i> , 2017, 28, 880-884.	1.8	183
869	Mutagenesis and Transgenesis in Zebrafish. , 2017, , 1-31.		2



#	ARTICLE	IF	CITATIONS
870	Therapeutic genome engineering via CRISPR-Cas systems. <i>Wiley Interdisciplinary Reviews: Systems Biology and Medicine</i> , 2017, 9, e1380.	6.6	22
871	CRISPR/Cas9: Transcending the Reality of Genome Editing. <i>Molecular Therapy - Nucleic Acids</i> , 2017, 7, 211-222.	2.3	81
872	Structural Basis for Guide RNA Processing and Seed-Dependent DNA Targeting by CRISPR-Cas12a. <i>Molecular Cell</i> , 2017, 66, 221-233.e4.	4.5	408
873	Advancing chimeric antigen receptor T cell therapy with CRISPR/Cas9. <i>Protein and Cell</i> , 2017, 8, 634-643.	4.8	81
874	A CRISPR toolbox to study virus-host interactions. <i>Nature Reviews Microbiology</i> , 2017, 15, 351-364.	13.6	147
875	High-throughput biochemical profiling reveals sequence determinants of dCas9 off-target binding and unbinding. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 5461-5466.	3.3	165
876	A Single-Molecule View of Genome Editing Proteins: Biophysical Mechanisms for TALEs and CRISPR/Cas9. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2017, 8, 577-597.	3.3	11
877	Locus-specific histone deacetylation using a synthetic CRISPR-Cas9-based HDAC. <i>Nature Communications</i> , 2017, 8, 15315.	5.8	176
878	Integrase-Deficient Lentiviral Vector as an All-in-One Platform for Highly Efficient CRISPR/Cas9-Mediated Gene Editing. <i>Molecular Therapy - Methods and Clinical Development</i> , 2017, 5, 153-164.	1.8	106
879	Mechanism of duplex DNA destabilization by RNA-guided Cas9 nuclease during target interrogation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 5443-5448.	3.3	67
880	CRISPR/Cas9: at the cutting edge of hepatology. <i>Gut</i> , 2017, 66, 1329-1340.	6.1	31
881	Harnessing the Potential of Human Pluripotent Stem Cells and Gene Editing for the Treatment of Retinal Degeneration. <i>Current Stem Cell Reports</i> , 2017, 3, 112-123.	0.7	27
882	Mapping the genomic landscape of CRISPR-Cas9 cleavage. <i>Nature Methods</i> , 2017, 14, 600-606.	9.0	331
883	Virus-host interplay in hepatitis B virus infection and epigenetic treatment strategies. <i>FEBS Journal</i> , 2017, 284, 3550-3572.	2.2	24
884	Efficient gene targeting in mouse zygotes mediated by CRISPR/Cas9-protein. <i>Transgenic Research</i> , 2017, 26, 263-277.	1.3	22
885	Cellular function reinstatement of offspring red blood cells cloned from the sickle cell disease patient blood post CRISPR genome editing. <i>Journal of Hematology and Oncology</i> , 2017, 10, 119.	6.9	20
886	CRISPR/Cas9-mediated genome editing induces exon skipping by alternative splicing or exon deletion. <i>Genome Biology</i> , 2017, 18, 108.	3.8	141
887	Developmental history and application of CRISPR in human disease. <i>Journal of Gene Medicine</i> , 2017, 19, e2963.	1.4	9

#	ARTICLE	IF	CITATIONS
888	Controlling microbial PHB synthesis via CRISPRi. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 5861-5867.	1.7	49
889	CRISPR system in filamentous fungi: Current achievements and future directions. <i>Gene</i> , 2017, 627, 212-221.	1.0	65
890	Application of CRISPR-Cas9 in eye disease. <i>Experimental Eye Research</i> , 2017, 161, 116-123.	1.2	10
891	GUIDEseq: a bioconductor package to analyze GUIDE-Seq datasets for CRISPR-Cas nucleases. <i>BMC Genomics</i> , 2017, 18, 379.	1.2	32
892	Targeted Disruption of V600E-Mutant BRAF Gene by CRISPR-Cpf1. <i>Molecular Therapy - Nucleic Acids</i> , 2017, 8, 450-458.	2.3	27
893	Antiviral Goes Viral: Harnessing CRISPR/Cas9 to Combat Viruses in Humans. <i>Trends in Microbiology</i> , 2017, 25, 833-850.	3.5	65
894	Cell-type-specific genome editing with a microRNA-responsive CRISPR-Cas9 switch. <i>Nucleic Acids Research</i> , 2017, 45, e118-e118.	6.5	88
895	CRISPR/Cas9-Mediated Three Nucleotide Insertion Corrects a Deletion Mutation in MRP1/ABCC1 and Restores Its Proper Folding and Function. <i>Molecular Therapy - Nucleic Acids</i> , 2017, 7, 429-438.	2.3	4
896	Safety and Efficacy of Gene-Based Therapeutics for Inherited Disorders. , 2017, , .		3
897	â€œDisease in a Dishâ€ Modeling of Retinal Diseases. , 2017, , 107-115.		0
898	CRISPR-Cas orthologues and variants: optimizing the repertoire, specificity and delivery of genome engineering tools. <i>Mammalian Genome</i> , 2017, 28, 247-261.	1.0	104
899	Harnessing the natural diversity and in vitro evolution of Cas9 to expand the genome editing toolbox. <i>Current Opinion in Microbiology</i> , 2017, 37, 88-94.	2.3	30
900	Review. Development, Applications, Benefits, Challenges and Limitations of the New Genome Engineering Technique. An Update Study. <i>Acta Marisiensis - Seria Medica</i> , 2017, 63, 4-9.	0.3	5
901	CRISPR/Cas9-Based Genome Editing for Disease Modeling and Therapy: Challenges and Opportunities for Nonviral Delivery. <i>Chemical Reviews</i> , 2017, 117, 9874-9906.	23.0	418
903	Improving the DNA specificity and applicability of base editing through protein engineering and protein delivery. <i>Nature Communications</i> , 2017, 8, 15790.	5.8	343
904	CRISPR-Cas9-induced t(11;19)/MLL-ENL translocations initiate leukemia in human hematopoietic progenitor cells <i>in vivo</i> . <i>Haematologica</i> , 2017, 102, 1558-1566.	1.7	60
905	Hit and go CAS9 delivered through a lentiviral based self-limiting circuit. <i>Nature Communications</i> , 2017, 8, 15334.	5.8	75
906	Complementary information derived from CRISPR Cas9 mediated gene deletion and suppression. <i>Nature Communications</i> , 2017, 8, 15403.	5.8	93

#	ARTICLE	IF	CITATIONS
907	The receptor-like cytoplasmic kinase BSR1 mediates chitin-induced defense signaling in rice cells. <i>Bioscience, Biotechnology and Biochemistry</i> , 2017, 81, 1497-1502.	0.6	19
908	CRISPR/Cas9 system: a powerful technology for in vivo and ex vivo gene therapy. <i>Science China Life Sciences</i> , 2017, 60, 468-475.	2.3	27
909	Chd2 regulates chromatin for proper gene expression toward differentiation in mouse embryonic stem cells. <i>Nucleic Acids Research</i> , 2017, 45, 8758-8772.	6.5	31
910	Biosensing: CRISPR-powered diagnostics. <i>Nature Biomedical Engineering</i> , 2017, 1, .	11.6	52
911	Analysing the outcome of CRISPR-aided genome editing in embryos: Screening, genotyping and quality control. <i>Methods</i> , 2017, 121-122, 68-76.	1.9	72
912	Allele-specific ablation rescues electrophysiological abnormalities in a human iPSC cell model of long-QT syndrome with a CALM2 mutation. <i>Human Molecular Genetics</i> , 2017, 26, 1670-1677.	1.4	79
913	Purified Cas9 Fusion Proteins for Advanced Genome Manipulation. <i>Small Methods</i> , 2017, 1, 1600052.	4.6	11
914	Genome-scale CRISPR-Cas9 knockout and transcriptional activation screening. <i>Nature Protocols</i> , 2017, 12, 828-863.	5.5	858
915	Genetic disruption of oncogenic Kras sensitizes lung cancer cells to Fas receptor-mediated apoptosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 3648-3653.	3.3	32
916	Genome-wide Specificity of Highly Efficient TALENs and CRISPR/Cas9 for T Cell Receptor Modification. <i>Molecular Therapy - Methods and Clinical Development</i> , 2017, 4, 213-224.	1.8	32
917	Evaluation and rational design of guide RNAs for efficient CRISPR/Cas9-mediated mutagenesis in Ciona. <i>Developmental Biology</i> , 2017, 425, 8-20.	0.9	69
919	CRISPR applications in ophthalmologic genome surgery. <i>Current Opinion in Ophthalmology</i> , 2017, 28, 252-259.	1.3	27
920	Targeted activation of diverse CRISPR-Cas systems for mammalian genome editing via proximal CRISPR targeting. <i>Nature Communications</i> , 2017, 8, 14958.	5.8	123
921	Rhesus iPSC Safe Harbor Gene-Editing Platform for Stable Expression of Transgenes in Differentiated Cells of All Germ Layers. <i>Molecular Therapy</i> , 2017, 25, 44-53.	3.7	26
922	CRISPR-Cas9 and CRISPR-Cpf1 mediated targeting of a stomatal developmental gene EPFL9 in rice. <i>Plant Cell Reports</i> , 2017, 36, 745-757.	2.8	170
923	Simplified CRISPR tools for efficient genome editing and streamlined protocols for their delivery into mammalian cells and mouse zygotes. <i>Methods</i> , 2017, 121-122, 16-28.	1.9	121
924	CRISPR-Cas9 Structures and Mechanisms. <i>Annual Review of Biophysics</i> , 2017, 46, 505-529.	4.5	1,289
925	Analysis of microsatellite instability in CRISPR/Cas9 editing mice. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2017, 797-799, 1-6.	0.4	4

#	ARTICLE	IF	CITATIONS
926	Re-engineered RNA-Guided FokI-Nucleases for Improved Genome Editing in Human Cells. <i>Molecular Therapy</i> , 2017, 25, 342-355.	3.7	25
927	Editing the genome of hiPSC with CRISPR/Cas9: disease models. <i>Mammalian Genome</i> , 2017, 28, 348-364.	1.0	72
928	Detection of on-target and off-target mutations generated by CRISPR/Cas9 and other sequence-specific nucleases. <i>Biotechnology Advances</i> , 2017, 35, 95-104.	6.0	269
929	Genome engineering in human pluripotent stem cells. <i>Current Opinion in Chemical Engineering</i> , 2017, 15, 56-67.	3.8	1
930	Molecular basis, applications and challenges of CRISPR/Cas9: a continuously evolving tool for genome editing. <i>Briefings in Functional Genomics</i> , 2017, 16, elw038.	1.3	9
931	Evolution of Resistance Against CRISPR/Cas9 Gene Drive. <i>Genetics</i> , 2017, 205, 827-841.	1.2	250
932	Engineering Therapeutic T Cells: From Synthetic Biology to Clinical Trials. <i>Annual Review of Pathology: Mechanisms of Disease</i> , 2017, 12, 305-330.	9.6	54
933	Induced pluripotent stem cell technology: a decade of progress. <i>Nature Reviews Drug Discovery</i> , 2017, 16, 115-130.	21.5	1,076
934	Mathematical and computational analysis of CRISPR Cas9 sgRNA off-target homologies. <i>International Journal of Biomathematics</i> , 2017, 10, 1750085.	1.5	1
935	Rapid Generation of Multiple Loci-Engineered Marker-free Poxvirus and Characterization of a Clinical-Grade Oncolytic Vaccinia Virus. <i>Molecular Therapy - Methods and Clinical Development</i> , 2017, 7, 112-122.	1.8	10
936	Drug-tunable multidimensional synthetic gene control using inducible degron-tagged dCas9 effectors. <i>Nature Communications</i> , 2017, 8, 1191.	5.8	49
937	pgRNAFinder: a web-based tool to design distance independent paired-gRNA. <i>Bioinformatics</i> , 2017, 33, 3642-3644.	1.8	5
938	Genome editing technologies to fight infectious diseases. <i>Expert Review of Anti-Infective Therapy</i> , 2017, 15, 1001-1013.	2.0	10
939	CRISPR/Cas9 Genome-Editing System in Human Stem Cells: Current Status and Future Prospects. <i>Molecular Therapy - Nucleic Acids</i> , 2017, 9, 230-241.	2.3	82
940	Gene Therapy Blueprints for NeuroAIDS. , 2017, , 953-993.		1
941	Gene Editing and Human Pluripotent Stem Cells: Tools for Advancing Diabetes Disease Modeling and Beta-Cell Development. <i>Current Diabetes Reports</i> , 2017, 17, 116.	1.7	11
942	A reversible haploid mouse embryonic stem cell biobank resource for functional genomics. <i>Nature</i> , 2017, 550, 114-118.	13.7	58
943	Random mutagenesis and precise gene editing technologies: applications in algal crop improvement and functional genomics. <i>European Journal of Phycology</i> , 2017, 52, 466-481.	0.9	12

#	ARTICLE	IF	CITATIONS
944	A review on advanced methods in plant gene targeting. <i>Journal of Genetic Engineering and Biotechnology</i> , 2017, 15, 317-321.	1.5	14
945	CRISPR/Cas9-Enabled Multiplex Genome Editing and Its Application. <i>Progress in Molecular Biology and Translational Science</i> , 2017, 149, 111-132.	0.9	71
946	Precise insertion and guided editing of higher plant genomes using Cpf1 CRISPR nucleases. <i>Scientific Reports</i> , 2017, 7, 11606.	1.6	164
947	Enhanced proofreading governs CRISPR-Cas9 targeting accuracy. <i>Nature</i> , 2017, 550, 407-410.	13.7	901
948	Nonintegrating Gene Therapy Vectors. <i>Hematology/Oncology Clinics of North America</i> , 2017, 31, 753-770.	0.9	83
949	Delivery strategies of the CRISPR-Cas9 gene-editing system for therapeutic applications. <i>Journal of Controlled Release</i> , 2017, 266, 17-26.	4.8	376
950	Targeted insertion of an anti-CD2 monoclonal antibody transgene into the GGTA1 locus in pigs using FokI-dCas9. <i>Scientific Reports</i> , 2017, 7, 8383.	1.6	37
951	Cut and Paste: Efficient Homology-Directed Repair of a Dominant Negative KRT14 Mutation via CRISPR/Cas9 Nickases. <i>Molecular Therapy</i> , 2017, 25, 2585-2598.	3.7	73
952	Targeted mutagenesis: A sniper-like diversity generator in microbial engineering. <i>Synthetic and Systems Biotechnology</i> , 2017, 2, 75-86.	1.8	15
953	COL7A1 Editing via CRISPR/Cas9 in Recessive Dystrophic Epidermolysis Bullosa. <i>Molecular Therapy</i> , 2017, 25, 2573-2584.	3.7	81
954	Implications of human genetic variation in CRISPR-based therapeutic genome editing. <i>Nature Medicine</i> , 2017, 23, 1095-1101.	15.2	105
955	Progress and prospects in plant genome editing. <i>Nature Plants</i> , 2017, 3, 17107.	4.7	349
956	Correction of a pathogenic gene mutation in human embryos. <i>Nature</i> , 2017, 548, 413-419.	13.7	781
957	Towards CRISPR/Cas crops – bringing together genomics and genome editing. <i>New Phytologist</i> , 2017, 216, 682-698.	3.5	235
958	Human Germline Genome Editing. <i>American Journal of Human Genetics</i> , 2017, 101, 167-176.	2.6	168
959	CRISPR/Cas9-Mediated Knockin Application in Cell Therapy: A Non-viral Procedure for Bystander Treatment of Glioma in Mice. <i>Molecular Therapy - Nucleic Acids</i> , 2017, 8, 395-403.	2.3	19
960	Genome editing in crop improvement: Present scenario and future prospects. <i>Journal of Crop Improvement</i> , 2017, 31, 453-559.	0.9	57
961	Sugarcane Biotechnology: Challenges and Prospects. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
962	Optimised metrics for CRISPR-KO screens with second-generation gRNA libraries. <i>Scientific Reports</i> , 2017, 7, 7384.	1.6	37
963	orco Mutagenesis Causes Loss of Antennal Lobe Glomeruli and Impaired Social Behavior in Ants. <i>Cell</i> , 2017, 170, 727-735.e10.	13.5	219
964	CRISPR-Cas9 System as a Genome Editing Tool in Sugarcane. , 2017, , 155-172.		4
965	Disabling Cas9 by an anti-CRISPR DNA mimic. <i>Science Advances</i> , 2017, 3, e1701620.	4.7	289
967	Suppression of HBV replication by the expression of nickase- and nuclease dead-Cas9. <i>Scientific Reports</i> , 2017, 7, 6122.	1.6	19
968	Promoterless gene targeting without nucleases rescues lethality of a Criglerâ€Najjar syndrome mouse model. <i>EMBO Molecular Medicine</i> , 2017, 9, 1346-1355.	3.3	46
969	Genome Editingâ€”Principles and Applications for Functional Genomics Research and Crop Improvement. <i>Critical Reviews in Plant Sciences</i> , 2017, 36, 291-309.	2.7	111
970	CRISPR/Cas9-assisted gRNA-free one-step genome editing with no sequence limitations and improved targeting efficiency. <i>Scientific Reports</i> , 2017, 7, 16624.	1.6	29
971	Repair of the TGFBI gene in human corneal keratocytes derived from a granular corneal dystrophy patient via CRISPR/Cas9-induced homology-directed repair. <i>Scientific Reports</i> , 2017, 7, 16713.	1.6	29
972	Programmable DNA looping using engineered bivalent dCas9 complexes. <i>Nature Communications</i> , 2017, 8, 1628.	5.8	60
973	Towards personalised allele-specific CRISPR gene editing to treat autosomal dominant disorders. <i>Scientific Reports</i> , 2017, 7, 16174.	1.6	66
974	Genome Editing. <i>Journal of the American College of Cardiology</i> , 2017, 70, 2808-2821.	1.2	27
975	CRISPR/Cas9â€”Based Safeâ€”Harbor Gene Editing in Rhesus iPSCs. <i>Current Protocols in Stem Cell Biology</i> , 2017, 43, 5A.11.1-5A.11.14.	3.0	6
976	Precise Editing at DNA Replication Forks Enables Multiplex Genome Engineering in Eukaryotes. <i>Cell</i> , 2017, 171, 1453-1467.e13.	13.5	93
977	Precision Medicine, CRISPR, and Genome Engineering. <i>Advances in Experimental Medicine and Biology</i> , 2017, , .	0.8	2
978	CRISPR in the Retina: Evaluation of Future Potential. <i>Advances in Experimental Medicine and Biology</i> , 2017, 1016, 147-155.	0.8	3
979	Disruption of diphthamide synthesis genes and resulting toxin resistance as a robust technology for quantifying and optimizing CRISPR/Cas9-mediated gene editing. <i>Scientific Reports</i> , 2017, 7, 15480.	1.6	12
980	Essential role of mitochondrial Stat3 in p38MAPK mediated apoptosis under oxidative stress. <i>Scientific Reports</i> , 2017, 7, 15388.	1.6	33

#	ARTICLE	IF	CITATIONS
981	Structure-function Studies in Mouse Embryonic Stem Cells Using Recombinase-mediated Cassette Exchange. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	4
982	Identification of Novel Alleles Conferring Superior Production of Rose Flavor Phenylethyl Acetate Using Polygenic Analysis in Yeast. <i>MBio</i> , 2017, 8, .	1.8	63
983	CRISPR/Cas9-Mediated Deletion of CTG Expansions Recovers Normal Phenotype in Myogenic Cells Derived from Myotonic Dystrophy 1 Patients. <i>Molecular Therapy - Nucleic Acids</i> , 2017, 9, 337-348.	2.3	57
984	CRISPR/Cas9-mediated genome editing via postnatal administration of AAV vector cures haemophilia B mice. <i>Scientific Reports</i> , 2017, 7, 4159.	1.6	113
985	Generation and comparison of CRISPR-Cas9 and Cre-mediated genetically engineered mouse models of sarcoma. <i>Nature Communications</i> , 2017, 8, 15999.	5.8	53
986	Generation of complement protein C3 deficient pigs by CRISPR/Cas9-mediated gene targeting. <i>Scientific Reports</i> , 2017, 7, 5009.	1.6	28
987	Type II CRISPR/Cas9 approach in the oncological therapy. <i>Journal of Experimental and Clinical Cancer Research</i> , 2017, 36, 80.	3.5	17
988	Use of transcription activator-like effector for efficient gene modification and transcription in the filamentous fungus <i>Trichoderma reesei</i> . <i>Journal of Industrial Microbiology and Biotechnology</i> , 2017, 44, 1367-1373.	1.4	16
989	Therapeutic Gene Editing Safety and Specificity. <i>Hematology/Oncology Clinics of North America</i> , 2017, 31, 787-795.	0.9	18
990	Knocking out of carotenoid catabolic genes in rice fails to boost carotenoid accumulation, but reveals a mutation in strigolactone biosynthesis. <i>Plant Cell Reports</i> , 2017, 36, 1533-1545.	2.8	25
991	Biodegradable Amino-Ester Nanomaterials for Cas9 mRNA Delivery in Vitro and in Vivo. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 25481-25487.	4.0	74
993	Tailoring non-viral delivery vehicles for transporting genome-editing tools. <i>Science China Materials</i> , 2017, 60, 511-515.	3.5	13
994	A Critical Analysis of the Role of SNARE Protein SEC22B in Antigen Cross-Presentation. <i>Cell Reports</i> , 2017, 19, 2645-2656.	2.9	42
995	Seed-effect modeling improves the consistency of genome-wide loss-of-function screens and identifies synthetic lethal vulnerabilities in cancer cells. <i>Genome Medicine</i> , 2017, 9, 51.	3.6	12
996	Sustained secretion of anti-tumor necrosis factor $\alpha$ monoclonal antibody from <i>ex vivo</i> genetically engineered dermal tissue demonstrates therapeutic activity in mouse model of rheumatoid arthritis. <i>Journal of Gene Medicine</i> , 2017, 19, e2965.	1.4	4
997	Aptazyme-embedded guide RNAs enable ligand-responsive genome editing and transcriptional activation. <i>Nature Communications</i> , 2017, 8, 15939.	5.8	169
998	CRISPR/Cas9, a universal tool for genomic engineering. <i>Russian Journal of Genetics: Applied Research</i> , 2017, 7, 440-458.	0.4	4
999	Multidimensional chemical control of CRISPR-Cas9. <i>Nature Chemical Biology</i> , 2017, 13, 9-11.	3.9	146

#	ARTICLE	IF	CITATIONS
1000	CRISPR/Cas9 in zebrafish: an efficient combination for human genetic diseases modeling. <i>Human Genetics</i> , 2017, 136, 1-12.	1.8	83
1001	Eukaryotic Transcriptional and Post-Transcriptional Gene Expression Regulation. <i>Methods in Molecular Biology</i> , 2017, , .	0.4	3
1002	Using an Inducible CRISPR-dCas9-KRAB Effector System to Dissect Transcriptional Regulation in Human Embryonic Stem Cells. <i>Methods in Molecular Biology</i> , 2017, 1507, 221-233.	0.4	31
1003	Artificial Virus Delivers CRISPR-Cas9 System for Genome Editing of Cells in Mice. <i>ACS Nano</i> , 2017, 11, 95-111.	7.3	202
1004	CRISPR-Based Technologies for the Manipulation of Eukaryotic Genomes. <i>Cell</i> , 2017, 168, 20-36.	13.5	783
1005	CRISPR/Cas9, a powerful tool to target human herpesviruses. <i>Cellular Microbiology</i> , 2017, 19, e12694.	1.1	46
1006	hiPSC Disease Modeling of Rare Hereditary Cerebellar Ataxias: Opportunities and Future Challenges. <i>Neuroscientist</i> , 2017, 23, 554-566.	2.6	5
1007	Multiplex Genome Editing to Generate Universal CAR T Cells Resistant to PD1 Inhibition. <i>Clinical Cancer Research</i> , 2017, 23, 2255-2266.	3.2	694
1008	An analysis of possible off target effects following CAS9/CRISPR targeted deletions of neuropeptide gene enhancers from the mouse genome. <i>Neuropeptides</i> , 2017, 64, 101-107.	0.9	30
1009	Phenotypic screening with primary neurons to identify drug targets for regeneration and degeneration. <i>Molecular and Cellular Neurosciences</i> , 2017, 80, 161-169.	1.0	20
1010	Generation of chromosomal deletions in dicotyledonous plants employing a user-friendly genome editing toolkit. <i>Plant Journal</i> , 2017, 89, 155-168.	2.8	136
1011	Genome editing in cardiovascular diseases. <i>Nature Reviews Cardiology</i> , 2017, 14, 11-20.	6.1	76
1012	Design and Validation of CRISPR/Cas9 Systems for Targeted Gene Modification in Induced Pluripotent Stem Cells. <i>Methods in Molecular Biology</i> , 2017, 1498, 3-21.	0.4	10
1013	All-in-One CRISPR-Cas9/FokI-dCas9 Vector-Mediated Multiplex Genome Engineering in Cultured Cells. <i>Methods in Molecular Biology</i> , 2017, 1498, 41-56.	0.4	12
1014	Heritability of targeted gene modifications induced by plant-optimized CRISPR systems. <i>Cellular and Molecular Life Sciences</i> , 2017, 74, 1075-1093.	2.4	44
1015	<sc>CRISPR</sc>-mediated efficient directed mutagenesis and <sc>RAD</sc>-dependent and <sc>RAD</sc>-independent gene targeting in the moss <i>Physcomitrella patens</i>. <i>Plant Biotechnology Journal</i> , 2017, 15, 122-131.	4.1	104
1016	Enhanced integration of large DNA into <i>E. coli</i> chromosome by CRISPR/Cas9. <i>Biotechnology and Bioengineering</i> , 2017, 114, 172-183.	1.7	87
1017	Targeted Inactivation of DNA Photolyase Genes in Medaka Fish (<i>Oryzias latipes</i>). <i>Photochemistry and Photobiology</i> , 2017, 93, 315-322.	1.3	4



#	ARTICLE	IF	CITATIONS
1018	Disruption of the sheep BMPR-IB gene by CRISPR/Cas9 in in vitro -produced embryos. <i>Theriogenology</i> , 2017, 91, 163-172.e2.	0.9	35
1019	Exploring the functions of nonclassical MHC class Ib genes in <i>Xenopus laevis</i> by the CRISPR/Cas9 system. <i>Developmental Biology</i> , 2017, 426, 261-269.	0.9	22
1020	Plant genome editing made efficient and easy: targeted mutagenesis using the CRISPR/Cas system. <i>Acta Horticulturae</i> , 2017, , 209-214.	0.1	1
1021	TALENs-mediated homozygous CCR5 <sup>Δ32</sup> mutations endow CD4 <sup>+</sup> U87 cells with resistance against HIV-1 infection. <i>Molecular Medicine Reports</i> , 2018, 17, 243-249.	1.1	13
1022	Recent advances in the study of hepatitis B virus covalently closed circular DNA. <i>Virologica Sinica</i> , 2017, 32, 454-464.	1.2	18
1023	TRH Action Is Impaired in Pituitaries of Male IGSF1-Deficient Mice. <i>Endocrinology</i> , 2017, 158, 815-830.	1.4	32
1024	Natural versus Artificial Genetic Modification and Perils of GMOs. , 2017, , 197-227.		0
1025	Oncogenic Human Papillomavirus: Application of CRISPR/Cas9 Therapeutic Strategies for Cervical Cancer. <i>Cellular Physiology and Biochemistry</i> , 2017, 44, 2455-2466.	1.1	31
1026	Site-specific chromosomal gene insertion: FLP recombinase versus Cas9 nuclease. <i>Scientific Reports</i> , 2017, 7, 17771.	1.6	17
1027	CRISPR in Animals and Animal Models. <i>Progress in Molecular Biology and Translational Science</i> , 2017, 152, 95-114.	0.9	39
1028	An improved Red/ET recombineering system and mouse ES cells culture conditions for the generation of targeted mutant mice. <i>Experimental Animals</i> , 2017, 66, 125-136.	0.7	4
1029	Genome Engineering Using Haploid Embryonic Stem Cells. <i>Progress in Molecular Biology and Translational Science</i> , 2017, 152, 83-94.	0.9	0
1030	Use of Zinc-Finger Nucleases for Crop Improvement. <i>Progress in Molecular Biology and Translational Science</i> , 2017, 149, 47-63.	0.9	21
1031	Gene correction of HAX1 reversed Kostmann disease phenotype in patient-specific induced pluripotent stem cells. <i>Blood Advances</i> , 2017, 1, 903-914.	2.5	18
1032	CRISPR-offinder: a CRISPR guide RNA design and off-target searching tool for user-defined protospacer adjacent motif. <i>International Journal of Biological Sciences</i> , 2017, 13, 1470-1478.	2.6	44
1033	An Efficient Visual Screen for CRISPR/Cas9 Activity in <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 2017, 08, 39.	1.7	39
1034	CRISPR/Cas9: A Practical Approach in Date Palm Genome Editing. <i>Frontiers in Plant Science</i> , 2017, 8, 1469.	1.7	34
1035	Gene Editing and Crop Improvement Using CRISPR-Cas9 System. <i>Frontiers in Plant Science</i> , 2017, 8, 1932.	1.7	244

#	ARTICLE	IF	CITATIONS
1036	Domesticated, Genetically Engineered, and Wild Plant Relatives Exhibit Unintended Phenotypic Differences: A Comparative Meta-Analysis Profiling Rice, Canola, Maize, Sunflower, and Pumpkin. <i>Frontiers in Plant Science</i> , 2017, 8, 2030.	1.7	14
1037	New Directions for Epigenetics: Application of Engineered DNA-Binding Molecules to Locus-Specific Epigenetic Research. , 2017, , 635-652.		2
1038	Recent advances in DNA-free editing and precise base editing in plants. <i>Emerging Topics in Life Sciences</i> , 2017, 1, 161-168.	1.1	8
1039	CRISPR Genome Engineering for Human Pluripotent Stem Cell Research. <i>Theranostics</i> , 2017, 7, 4445-4469.	4.6	22
1040	Structure-guided chemical modification of guide RNA enables potent non-viral in vivo genome editing. <i>Nature Biotechnology</i> , 2017, 35, 1179-1187.	9.4	375
1041	Assessing and Exploiting Functional Diversity in Germplasm Pools to Enhance Abiotic Stress Adaptation and Yield in Cereals and Food Legumes. <i>Frontiers in Plant Science</i> , 2017, 8, 1461.	1.7	60
1042	Forward and Reverse Genetics to Model Human Diseases in the Mouse. , 2017, , 727-752.		1
1043	A permutation-based non-parametric analysis of CRISPR screen data. <i>BMC Genomics</i> , 2017, 18, 545.	1.2	26
1044	Whole genome analysis of CRISPR Cas9 sgRNA off-target homologies via an efficient computational algorithm. <i>BMC Genomics</i> , 2017, 18, 826.	1.2	10
1045	May I Cut in? Gene Editing Approaches in Human Induced Pluripotent Stem Cells. <i>Cells</i> , 2017, 6, 5.	1.8	38
1046	A Prospective Treatment Option for Lysosomal Storage Diseases: CRISPR/Cas9 Gene Editing Technology for Mutation Correction in Induced Pluripotent Stem Cells. <i>Diseases (Basel, Switzerland)</i> , 2017, 5, 6.	1.0	12
1047	Genome Editing Tools in Plants. <i>Genes</i> , 2017, 8, 399.	1.0	63
1048	The CRB1 Complex: Following the Trail of Crumbs to a Feasible Gene Therapy Strategy. <i>Frontiers in Neuroscience</i> , 2017, 11, 175.	1.4	43
1049	The Impact of CRISPR/Cas9 Technology on Cardiac Research: From Disease Modelling to Therapeutic Approaches. <i>Stem Cells International</i> , 2017, 2017, 1-13.	1.2	36
1050	Simple Meets Single: The Application of CRISPR/Cas9 in Haploid Embryonic Stem Cells. <i>Stem Cells International</i> , 2017, 2017, 1-6.	1.2	5
1051	Cellular Reprogramming, Genome Editing, and Alternative CRISPR Cas9 Technologies for Precise Gene Therapy of Duchenne Muscular Dystrophy. <i>Stem Cells International</i> , 2017, 2017, 1-11.	1.2	30
1052	Gene Therapy for Liver Disease. , 2017, , 837-851.		1
1053	Generation of murine tumor cell lines deficient in MHC molecule surface expression using the CRISPR/Cas9 system. <i>PLoS ONE</i> , 2017, 12, e0174077.	1.1	16

#	ARTICLE	IF	CITATIONS
1054	Efficient generation of mutations mediated by CRISPR/Cas9 in the hairy root transformation system of <i>Brassica carinata</i> . PLoS ONE, 2017, 12, e0185429.	1.1	55
1055	Crossing enhanced and high fidelity SpCas9 nucleases to optimize specificity and cleavage. <i>Genome Biology</i> , 2017, 18, 190.	3.8	102
1056	Perfectly matched 20-nucleotide guide RNA sequences enable robust genome editing using high-fidelity SpCas9 nucleases. <i>Genome Biology</i> , 2017, 18, 191.	3.8	111
1057	Divergent susceptibilities to AAV-SaCas9-gRNA vector-mediated genome-editing in a single-cell-derived cell population. <i>BMC Research Notes</i> , 2017, 10, 720.	0.6	7
1058	CRISPR/Cas9-mediated mutagenesis of the dihydroflavonol-4-reductase-B (DFR-B) locus in the Japanese morning glory <i>Ipomoea (Pharbitis) nil</i> . <i>Scientific Reports</i> , 2017, 7, 10028.	1.6	106
1059	Deep mutational scanning of <i>S. pyogenes</i> Cas9 reveals important functional domains. <i>Scientific Reports</i> , 2017, 7, 16836.	1.6	37
1060	Genome Editing: Innovation in Molecular Biology. <i>Hereditary Genetics: Current Research</i> , 2017, 06, .	0.1	0
1061	Generation of tryptophan hydroxylase 2 gene knockout pigs by CRISPR/Cas9-mediated gene targeting. <i>Journal of Biomedical Research</i> , 2017, 31, 445.	0.7	20
1062	The Impact of Plant-Parasitic Nematodes on Agriculture and Methods of Control. , 0, , .		68
1063	Efficient Generation of Somatic Cell Nuclear Transfer-Competent Porcine Cells with Mutated Alleles at Multiple Target Loci by Using CRISPR/Cas9 Combined with Targeted Toxin-Based Selection System. <i>International Journal of Molecular Sciences</i> , 2017, 18, 2610.	1.8	7
1064	Current Progress and Future Prospects in Nucleic Acid Based Therapeutics. , 2017, , 280-313.		4
1065	Precision Medicine and Challenges in Research and Clinical Implementation. , 2017, , 717-732.		3
1066	Multiple Applications of a Transient CRISPR-Cas9 Coupled with Electroporation (TRACE) System in the <i>Cryptococcus neoformans</i> Species Complex. <i>Genetics</i> , 2018, 208, 1357-1372.	1.2	101
1067	DNA Nanotechnology-Enabled Drug Delivery Systems. <i>Chemical Reviews</i> , 2019, 119, 6459-6506.	23.0	768
1068	Potential high-frequency off-target mutagenesis induced by CRISPR/Cas9 in <i>Arabidopsis</i> and its prevention. <i>Plant Molecular Biology</i> , 2018, 96, 445-456.	2.0	142
1069	Genome Editing in Stem Cells for Disease Therapeutics. <i>Molecular Biotechnology</i> , 2018, 60, 329-338.	1.3	11
1070	Creation of knock out and knock in mice by CRISPR/Cas9 to validate candidate genes for human male infertility, interest, difficulties and feasibility. <i>Molecular and Cellular Endocrinology</i> , 2018, 468, 70-80.	1.6	24
1071	Allele-Specific CRISPR-Cas9 Genome Editing of the Single-Base P23H Mutation for Rhodopsin-Associated Dominant Retinitis Pigmentosa. <i>CRISPR Journal</i> , 2018, 1, 55-64.	1.4	96

#	ARTICLE	IF	CITATIONS
1072	Microhomology-assisted scarless genome editing in human iPSCs. <i>Nature Communications</i> , 2018, 9, 939.	5.8	52
1073	Use of two gRNAs for CRISPR/Cas9 improves allelic homologous recombination efficiency in mouse embryonic stem cells. <i>Genesis</i> , 2018, 56, e23212.	0.8	22
1074	Using the 2A Protein Coexpression System: Multicistronic 2A Vectors Expressing Gene(s) of Interest and Reporter Proteins. <i>Methods in Molecular Biology</i> , 2018, 1755, 31-48.	0.4	11
1075	Strategies for In Vivo Genome Editing in Nondividing Cells. <i>Trends in Biotechnology</i> , 2018, 36, 770-786.	4.9	58
1076	CRISPR/Cas9 genome editing technology significantly accelerated herpes simplex virus research. <i>Cancer Gene Therapy</i> , 2018, 25, 93-105.	2.2	41
1077	Impact of Genetic Variation on CRISPR-Cas Targeting. <i>CRISPR Journal</i> , 2018, 1, 159-170.	1.4	24
1078	Self-Delivering RNAi Targeting PD-1 Improves Tumor-Specific T Cell Functionality for Adoptive Cell Therapy of Malignant Melanoma. <i>Molecular Therapy</i> , 2018, 26, 1482-1493.	3.7	38
1079	Response to Comment on "Type I CD20 Antibodies Recruit the B Cell Receptor for Complement-Dependent Lysis of Malignant B Cells". <i>Journal of Immunology</i> , 2018, 200, 2517-2517.	0.4	0
1080	Receptor-Mediated Delivery of CRISPR-Cas9 Endonuclease for Cell-Type-Specific Gene Editing. <i>Journal of the American Chemical Society</i> , 2018, 140, 6596-6603.	6.6	127
1081	CRISPR/Cas9 cleavage efficiency regression through boosting algorithms and Markov sequence profiling. <i>Bioinformatics</i> , 2018, 34, 3069-3077.	1.8	39
1082	Cutting Edge Genetics: CRISPR/Cas9 Editing of Plant Genomes. <i>Plant and Cell Physiology</i> , 2018, 59, 1608-1620.	1.5	40
1083	Designer nuclease-mediated gene correction via homology-directed repair in an <i>in vitro</i> model of canine hemophilia B. <i>Journal of Gene Medicine</i> , 2018, 20, e3020.	1.4	12
1084	High-efficiency genome editing using a <i>dmc1</i> promoter-controlled CRISPR/Cas9 system in maize. <i>Plant Biotechnology Journal</i> , 2018, 16, 1848-1857.	4.1	108
1085	CRISPR/Cas9-Mediated Gene Disruption Reveals the Importance of Zinc Metabolism for Fitness of the Dimorphic Fungal Pathogen <i>Blastomyces dermatitidis</i> . <i>MBio</i> , 2018, 9, .	1.8	55
1086	Searching for Potential gRNA Off-Target Sites for CRISPR/Cas9 Using Automata Processing Across Different Platforms. , 2018, , .		22
1087	Genome-wide determination of on-target and off-target characteristics for RNA-guided DNA methylation by dCas9 methyltransferases. <i>GigaScience</i> , 2018, 7, 1-19.	3.3	64
1088	Review of CRISPR/Cas9 sgRNA Design Tools. <i>Interdisciplinary Sciences, Computational Life Sciences</i> , 2018, 10, 455-465.	2.2	180
1089	Recent Advances in Therapeutic Genome Editing in China. <i>Human Gene Therapy</i> , 2018, 29, 136-145.	1.4	5

#	ARTICLE	IF	CITATIONS
1090	Arabidopsis glutamate:glyoxylate aminotransferase 1 (Ler) mutants generated by CRISPR/Cas9 and their characteristics. <i>Transgenic Research</i> , 2018, 27, 61-74.	1.3	6
1091	The multiplexed CRISPR targeting platforms. <i>Drug Discovery Today: Technologies</i> , 2018, 28, 53-61.	4.0	9
1092	Personalised genome editing – The future for corneal dystrophies. <i>Progress in Retinal and Eye Research</i> , 2018, 65, 147-165.	7.3	31
1093	Concise Review: Assessing the Genome Integrity of Human Induced Pluripotent Stem Cells: What Quality Control Metrics?. <i>Stem Cells</i> , 2018, 36, 814-821.	1.4	51
1094	Genome editing technologies and their applications in crop improvement. <i>Plant Biotechnology Reports</i> , 2018, 12, 57-68.	0.9	41
1095	Partial DNA-guided Cas9 enables genome editing with reduced off-target activity. <i>Nature Chemical Biology</i> , 2018, 14, 311-316.	3.9	186
1096	The evolution of CRISPR/Cas9 and their cousins: hope or hype?. <i>Biotechnology Letters</i> , 2018, 40, 465-477.	1.1	20
1097	The initiation, propagation and dynamics of CRISPR-SpyCas9 R-loop complex. <i>Nucleic Acids Research</i> , 2018, 46, 350-361.	6.5	128
1098	Hybridization Kinetics Explains CRISPR-Cas Off-Targeting Rules. <i>Cell Reports</i> , 2018, 22, 1413-1423.	2.9	96
1099	Is CRISPR an Ethical Game Changer?. <i>Journal of Agricultural and Environmental Ethics</i> , 2018, 31, 219-238.	0.9	30
1100	A Survey of Validation Strategies for CRISPR-Cas9 Editing. <i>Scientific Reports</i> , 2018, 8, 888.	1.6	241
1101	Combining cell and gene therapy to advance cardiac regeneration. <i>Expert Opinion on Biological Therapy</i> , 2018, 18, 409-423.	1.4	22
1102	Tuning CRISPR-Cas9 Gene Drives in <i>Saccharomyces cerevisiae</i> . <i>G3: Genes, Genomes, Genetics</i> , 2018, 8, 999-1018.	0.8	40
1103	Advancing biotechnology with CRISPR/Cas9: recent applications and patent landscape. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2018, 45, 467-480.	1.4	23
1104	The Conformational Dynamics of Cas9 Governing DNA Cleavage Are Revealed by Single-Molecule FRET. <i>Cell Reports</i> , 2018, 22, 372-382.	2.9	94
1105	RNA-Seq Analysis of an Antisense Sequence Optimized for Exon Skipping in Duchenne Patients Reveals No Off-Target Effect. <i>Molecular Therapy - Nucleic Acids</i> , 2018, 10, 277-291.	2.3	8
1106	Genome Editing in Retinal Diseases using CRISPR Technology. <i>Ophthalmology Retina</i> , 2018, 2, 1-3.	1.2	8
1107	A beginner's guide to gene editing. <i>Experimental Physiology</i> , 2018, 103, 439-448.	0.9	12

#	ARTICLE	IF	CITATIONS
1108	Protein Inhibitors of CRISPR-Cas9. <i>ACS Chemical Biology</i> , 2018, 13, 417-423.	1.6	48
1109	CRISPR/Cas9 therapeutics for liver diseases. <i>Journal of Cellular Biochemistry</i> , 2018, 119, 4265-4278.	1.2	9
1110	Bacteriophage DNA glucosylation impairs target DNA binding by type I and II but not by type V CRISPR-Cas effector complexes. <i>Nucleic Acids Research</i> , 2018, 46, 873-885.	6.5	57
1111	Efficient CRISPR/Cas9-based genome editing in carrot cells. <i>Plant Cell Reports</i> , 2018, 37, 575-586.	2.8	130
1112	Split Cas9, Not Hairspins Advancing the Therapeutic Index of CRISPR Technology. <i>Biotechnology Journal</i> , 2018, 13, e1700432.	1.8	26
1113	Refined sgRNA efficacy prediction improves large- and small-scale CRISPR-Cas9 applications. <i>Nucleic Acids Research</i> , 2018, 46, 1375-1385.	6.5	213
1114	Gene therapy and gene editing strategies for hemoglobinopathies. <i>Blood Cells, Molecules, and Diseases</i> , 2018, 70, 87-101.	0.6	28
1115	Improving CRISPR-Cas specificity with chemical modifications in single-guide RNAs. <i>Nucleic Acids Research</i> , 2018, 46, 792-803.	6.5	206
1116	Hypersensitive assessment of aryl hydrocarbon receptor transcriptional activity using a novel truncated <i>cyp1a</i> promoter in zebrafish. <i>FASEB Journal</i> , 2018, 32, 2814-2826.	0.2	11
1117	A protocol for custom CRISPR Cas9 donor vector construction to truncate genes in mammalian cells using pcDNA3 backbone. <i>BMC Molecular Biology</i> , 2018, 19, 3.	3.0	4
1118	Genome editing for the treatment of tumorigenic viral infections and virus-related carcinomas. <i>Frontiers of Medicine</i> , 2018, 12, 497-508.	1.5	2
1119	Harnessing "A Billion Years of Experimentation": The Ongoing Exploration and Exploitation of CRISPR-Cas Immune Systems. <i>CRISPR Journal</i> , 2018, 1, 141-158.	1.4	44
1120	Targeted gene disruption by use of CRISPR/Cas9 ribonucleoprotein complexes in the water flea <i>Daphnia pulex</i> . <i>Genes To Cells</i> , 2018, 23, 494-502.	0.5	23
1121	A Cas9 transgenic <i>Plasmodium yoelii</i> parasite for efficient gene editing. <i>Molecular and Biochemical Parasitology</i> , 2018, 222, 21-28.	0.5	16
1122	Current advanced therapy cell-based medicinal products for type-1-diabetes treatment. <i>International Journal of Pharmaceutics</i> , 2018, 543, 107-120.	2.6	17
1123	Concerns regarding "off-target" activity of genome editing endonucleases. <i>Plant Physiology and Biochemistry</i> , 2018, 131, 22-30.	2.8	32
1124	Making point mutations in <i>Escherichia coli</i> BL21 genome using the CRISPR-Cas9 system. <i>FEMS Microbiology Letters</i> , 2018, 365, .	0.7	8
1125	Paired D10A Cas9 nickases are sometimes more efficient than individual nucleases for gene disruption. <i>Nucleic Acids Research</i> , 2018, 46, e71-e71.	6.5	60

#	ARTICLE	IF	CITATIONS
1126	Efficient In Vivo Liver-Directed Gene Editing Using CRISPR/Cas9. <i>Molecular Therapy</i> , 2018, 26, 1241-1254.	3.7	52
1127	Generation of TALE-Based Designer Epigenome Modifiers. <i>Methods in Molecular Biology</i> , 2018, 1767, 89-109.	0.4	5
1128	Chemically Modified Cpf1-CRISPR RNAs Mediate Efficient Genome Editing in Mammalian Cells. <i>Molecular Therapy</i> , 2018, 26, 1228-1240.	3.7	60
1129	Highly efficient heritable targeted deletions of gene clusters and non-coding regulatory regions in Arabidopsis using CRISPR/Cas9. <i>Scientific Reports</i> , 2018, 8, 4443.	1.6	63
1130	Precise Cas9 targeting enables genomic mutation prevention. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3669-3673.	3.3	28
1131	Designing Epigenome Editors: Considerations of Biochemical and Locus Specificities. <i>Methods in Molecular Biology</i> , 2018, 1767, 65-87.	0.4	2
1132	Assisted delivery of antisense therapeutics in animal models of heritable neurodegenerative and neuromuscular disorders: a systematic review and meta-analysis. <i>Scientific Reports</i> , 2018, 8, 4181.	1.6	9
1133	High efficient multisites genome editing in allotetraploid cotton ( <i>Gossypium hirsutum</i> ) using CRISPR/Cas9 system. <i>Plant Biotechnology Journal</i> , 2018, 16, 137-150.	4.1	202
1134	Increasing the efficiency of CRISPR-Cas9 VQR precise genome editing in rice. <i>Plant Biotechnology Journal</i> , 2018, 16, 292-297.	4.1	78
1135	The potential and challenges of CRISPR-Cas in eradication of hepatitis B virus covalently closed circular DNA. <i>Virus Research</i> , 2018, 244, 304-310.	1.1	37
1136	CRISPR-engineered genome editing for the next generation neurological disease modeling. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 2018, 81, 459-467.	2.5	11
1137	Generation of Genomic Deletions (of <i>Rig-I</i> GENE) in Goat Primary Cell Culture Using CRISPR/CAS9 Method. <i>Animal Biotechnology</i> , 2018, 29, 142-152.	0.7	2
1138	A technological and regulatory outlook on CRISPR crop editing. <i>Journal of Cellular Biochemistry</i> , 2018, 119, 1291-1298.	1.2	53
1139	Anti-CRISPRdb: a comprehensive online resource for anti-CRISPR proteins. <i>Nucleic Acids Research</i> , 2018, 46, D393-D398.	6.5	65
1140	Genetics-based manipulation of adipose tissue sympathetic innervation. <i>Physiology and Behavior</i> , 2018, 190, 21-27.	1.0	14
1141	Inducible CRISPR genome-editing tool: classifications and future trends. <i>Critical Reviews in Biotechnology</i> , 2018, 38, 573-586.	5.1	24
1142	High Efficiency Gene Correction in Hematopoietic Cells by Donor-Template-Free CRISPR/Cas9 Genome Editing. <i>Molecular Therapy - Nucleic Acids</i> , 2018, 10, 1-8.	2.3	34
1143	Multigene editing via CRISPR/Cas9 guided by a single sgRNA seed in <i>Arabidopsis</i> . <i>Journal of Integrative Plant Biology</i> , 2018, 60, 376-381.	4.1	24

#	ARTICLE	IF	CITATIONS
1144	Gene editing & stem cells. <i>Journal of Cystic Fibrosis</i> , 2018, 17, 10-16.	0.3	11
1145	<i>In Vitro</i> Transduction and Target-Mutagenesis Efficiency of HIV-1 Gene Targeting ZFN and CRISPR/Cas9 Delivered by Various Plasmids and/or Vectors: Toward an HIV Cure. <i>AIDS Research and Human Retroviruses</i> , 2018, 34, 88-102.	0.5	3
1146	Revolutionizing male fertility factor research in mice by using the genome editing tool CRISPR/Cas9. <i>Reproductive Medicine and Biology</i> , 2018, 17, 3-10.	1.0	28
1147	Modeling Cancer in the CRISPR Era. <i>Annual Review of Cancer Biology</i> , 2018, 2, 111-131.	2.3	15
1148	A Comparison of Techniques to Evaluate the Effectiveness of Genome Editing. <i>Trends in Biotechnology</i> , 2018, 36, 147-159.	4.9	38
1149	Perspective: the opportunities and possibilities unleashed by clustered regularly interspaced short palindromic repeats and artificial intelligence. <i>AME Medical Journal</i> , 0, 3, 4-4.	0.4	0
1150	Identification of on-target mutagenesis during correction of a beta-thalassemia splice mutation in iPS cells with optimised CRISPR/Cas9-double nickase reveals potential safety concerns. <i>APL Bioengineering</i> , 2018, 2, 046103.	3.3	14
1151	Dynamics changes of CRISPR-Cas9 systems induced by high fidelity mutations. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 27439-27448.	1.3	16
1152	CRISPR/Cas9-mediated mutagenesis of homologous genes in Chinese kale. <i>Scientific Reports</i> , 2018, 8, 16786.	1.6	23
1153	Conferring DNA virus resistance with high specificity in plants using virus-inducible genome-editing system. <i>Genome Biology</i> , 2018, 19, 197.	3.8	59
1154	Site-Specific Integration by Recruitment of a Complex of C31 Integrase and Donor DNA to a Target Site by Using a Tandem, Artificial Zinc-Finger Protein. <i>Biochemistry</i> , 2018, 57, 6868-6877.	1.2	1
1156	Genome Engineering Tools for Functional Genomics and Crop Improvement in Legumes. , 2018, , 219-234.		1
1157	Orthogonal Cas9 Cas9 chimeras provide a versatile platform for genome editing. <i>Nature Communications</i> , 2018, 9, 4856.	5.8	27
1158	Phosphate Lock Residues of <i>Acidothermus cellulolyticus</i> Cas9 Are Critical to Its Substrate Specificity. <i>ACS Synthetic Biology</i> , 2018, 7, 2908-2917.	1.9	7
1159	Application and optimization of CRISPR-Cas9-mediated genome engineering in axolotl ( <i>Ambystoma</i> ) Tj ETQq0 0.0rgBT /Overlock 10	5.5	34
1160	Generation of white-eyed <i>Daphnia magna</i> mutants lacking scarlet function. <i>PLoS ONE</i> , 2018, 13, e0205609.	1.1	14
1161	Delivery of CRISPR/Cas9 by Novel Strategies for Gene Therapy. <i>ChemBioChem</i> , 2019, 20, 634-643.	1.3	48
1162	Aptazyme-mediated direct modulation of post-transcriptional sgRNA level for conditional genome editing and gene expression. <i>Journal of Biotechnology</i> , 2018, 288, 23-29.	1.9	11



#	ARTICLE	IF	CITATIONS
1163	Effects of CRISPR/Cas9 dosage on TICAM1 and RBL gene mutation rate, embryonic development, hatchability and fry survival in channel catfish. <i>Scientific Reports</i> , 2018, 8, 16499.	1.6	34
1164	Web-based design and analysis tools for CRISPR base editing. <i>BMC Bioinformatics</i> , 2018, 19, 542.	1.2	127
1165	Gene Editing Technologies and Use of Recombinant/Synthetic Nucleic Acids in Laboratory Animals. <i>Applied Biosafety</i> , 2018, 23, 168-179.	0.2	0
1166	Engineering CRISPR-Cas9 RNA-Protein Complexes for Improved Function and Delivery. <i>CRISPR Journal</i> , 2018, 1, 367-378.	1.4	11
1167	Clonal analysis by tunable CRISPR-mediated excision. <i>Development (Cambridge)</i> , 2019, 146, .	1.2	9
1168	High-performance gene expression and knockout tools using sleeping beauty transposon system. <i>Mobile DNA</i> , 2018, 9, 33.	1.3	18
1169	NmeCas9 is an intrinsically high-fidelity genome-editing platform. <i>Genome Biology</i> , 2018, 19, 214.	3.8	95
1170	Emerging Concepts and Techniques. , 2018, , 729-743.		0
1171	Agnostic detection of genomic alterations by holistic DNA structural interrogation. <i>PLoS ONE</i> , 2018, 13, e0208054.	1.1	1
1172	Revolution in Gene Medicine Therapy and Genome Surgery. <i>Genes</i> , 2018, 9, 575.	1.0	25
1173	Recognition of CRISPR/Cas9 off-target sites through ensemble learning of uneven mismatch distributions. <i>Bioinformatics</i> , 2018, 34, i757-i765.	1.8	38
1174	Genome Editing of Pigs for Agriculture and Biomedicine. <i>Frontiers in Genetics</i> , 2018, 9, 360.	1.1	69
1175	DNA, RNA, and Protein Tools for Editing the Genetic Information in Human Cells. <i>IScience</i> , 2018, 6, 247-263.	1.9	25
1176	Transgene-free genome editing in marine algae by bacterial conjugation – comparison with biolistic CRISPR/Cas9 transformation. <i>Scientific Reports</i> , 2018, 8, 14401.	1.6	63
1177	CRISPR/Cas9 gene-editing: Research technologies, clinical applications and ethical considerations. <i>Seminars in Perinatology</i> , 2018, 42, 487-500.	1.1	50
1178	CRISPR deletion of MIEN1 in breast cancer cells. <i>PLoS ONE</i> , 2018, 13, e0204976.	1.1	21
1179	A simple and highly efficient method for gene silencing in <i>Escherichia coli</i> . <i>Journal of Microbiological Methods</i> , 2018, 154, 25-32.	0.7	3
1180	Trio-Based Deep Sequencing Reveals a Low Incidence of Off-Target Mutations in the Offspring of Genetically Edited Goats. <i>Frontiers in Genetics</i> , 2018, 9, 449.	1.1	33

#	ARTICLE	IF	CITATIONS
1181	CRISPR-Cas9 off-targeting assessment with nucleic acid duplex energy parameters. <i>Genome Biology</i> , 2018, 19, 177.	3.8	105
1182	The CRISPR/Cas revolution continues: From efficient gene editing for crop breeding to plant synthetic biology. <i>Journal of Integrative Plant Biology</i> , 2018, 60, 1127-1153.	4.1	109
1183	Anticipating emerging biotechnology threats. <i>Politics and the Life Sciences</i> , 2018, 37, 203-219.	0.5	7
1184	Blossom of CRISPR technologies and applications in disease treatment. <i>Synthetic and Systems Biotechnology</i> , 2018, 3, 217-228.	1.8	20
1185	Paired CRISPR/Cas9 Nickases Mediate Efficient Site-Specific Integration of F9 into rDNA Locus of Mouse ESCs. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3035.	1.8	19
1186	High fidelity CRISPR/Cas9 increases precise monoallelic and biallelic editing events in primordial germ cells. <i>Scientific Reports</i> , 2018, 8, 15126.	1.6	40
1187	Transient Retrovirus-Based CRISPR/Cas9 All-in-One Particles for Efficient, Targeted Gene Knockout. <i>Molecular Therapy - Nucleic Acids</i> , 2018, 13, 256-274.	2.3	34
1188	CRISPR/Cas9 System: A Bacterial Tailor for Genomic Engineering. <i>Genetics Research International</i> , 2018, 2018, 1-17.	2.0	19
1189	Ultraacceleration of Photochemical Cytosine Deamination by Using a 5'-Phosphate-Substituted Oligodeoxyribonucleotide Probe Containing a 3'-Cyanovinylcarbazole Nucleotide at Its 5'-End. <i>ChemBioChem</i> , 2018, 19, 2257-2261.	1.3	3
1190	Instability of microsatellites linked to targeted genes in CRISPR/Cas9-edited and traditional gene knockout mouse strains. <i>Journal of Genetics and Genomics</i> , 2018, 45, 553-556.	1.7	2
1191	CRISPR/Cas9 can mediate high-efficiency off-target mutations in mice in vivo. <i>Cell Death and Disease</i> , 2018, 9, 1099.	2.7	50
1192	Defining CRISPR-Cas9 genome-wide nuclease activities with CIRCLE-seq. <i>Nature Protocols</i> , 2018, 13, 2615-2642.	5.5	69
1193	The applications of CRISPR/Cas system in molecular detection. <i>Journal of Cellular and Molecular Medicine</i> , 2018, 22, 5807-5815.	1.6	47
1194	Production of hypoallergenic milk from DNA-free beta-lactoglobulin (BLG) gene knockout cow using zinc-finger nucleases mRNA. <i>Scientific Reports</i> , 2018, 8, 15430.	1.6	39
1195	The precision prevention and therapy of HPV-related cervical cancer: new concepts and clinical implications. <i>Cancer Medicine</i> , 2018, 7, 5217-5236.	1.3	194
1196	Specific Targeting of Oncogenes Using CRISPR Technology. <i>Cancer Research</i> , 2018, 78, 5506-5512.	0.4	6
1197	Cell Therapies: New Frontier for the Management of Diabetic Foot Ulceration. <i>Contemporary Diabetes</i> , 2018, , 219-235.	0.0	0
1198	Comprehensive off-target analysis of dCas9-SAM-mediated HIV reactivation via long noncoding RNA and mRNA profiling. <i>BMC Medical Genomics</i> , 2018, 11, 78.	0.7	15

#	ARTICLE	IF	CITATIONS
1199	A tetracycline-inducible CRISPR/Cas9 system, targeting two long non-coding RNAs, suppresses the malignant behavior of bladder cancer cells. <i>Oncology Letters</i> , 2018, 16, 4309-4316.	0.8	7
1200	DNA-based memory devices for recording cellular events. <i>Nature Reviews Genetics</i> , 2018, 19, 718-732.	7.7	107
1201	A novel $\lambda$ integrase-mediated seamless vector transgenesis platform for therapeutic protein expression. <i>Nucleic Acids Research</i> , 2018, 46, e99-e99.	6.5	7
1202	Application of CRISPR/Cas9 technologies combined with iPSCs in the study and treatment of retinal degenerative diseases. <i>Human Genetics</i> , 2018, 137, 679-688.	1.8	20
1203	Off-target predictions in CRISPR-Cas9 gene editing using deep learning. <i>Bioinformatics</i> , 2018, 34, i656-i663.	1.8	121
1204	The lateral meningocele syndrome mutation causes marked osteopenia in mice. <i>Journal of Biological Chemistry</i> , 2018, 293, 14165-14177.	1.6	33
1205	Establishing a dual knock-out cell line by lentivirus based combined CRISPR/Cas9 and Loxp/Cre system. <i>Cytotechnology</i> , 2018, 70, 1595-1605.	0.7	4
1206	Genome Editing in Mice Using CRISPR/Cas9 Technology. <i>Current Protocols in Cell Biology</i> , 2018, 81, e57.	2.3	20
1207	Adeno-associated virus-mediated delivery of CRISPR-Cas9 for genome editing in the central nervous system. <i>Current Opinion in Biomedical Engineering</i> , 2018, 7, 33-41.	1.8	13
1208	Robust CRISPR/Cas9 Genome Editing of the HUDEP-2 Erythroid Precursor Line Using Plasmids and Single-Stranded Oligonucleotide Donors. <i>Methods and Protocols</i> , 2018, 1, 28.	0.9	17
1209	Sharpening the Scissors: Mechanistic Details of CRISPR/Cas9 Improve Functional Understanding and Inspire Future Research. <i>Journal of the American Chemical Society</i> , 2018, 140, 11142-11152.	6.6	10
1210	Overview of current mouse models of autism and strategies for their development using CRISPR/Cas9 technology. <i>Acta Agriculturae Slovenica</i> , 2018, 112, 19.	0.2	1
1211	Delivering CRISPR: a review of the challenges and approaches. <i>Drug Delivery</i> , 2018, 25, 1234-1257.	2.5	776
1212	The Role of Gene Editing in Neurodegenerative Diseases. <i>Cell Transplantation</i> , 2018, 27, 364-378.	1.2	11
1213	Generation of genetically-engineered animals using engineered endonucleases. <i>Archives of Pharmacal Research</i> , 2018, 41, 885-897.	2.7	24
1214	Cas9 versus Cas12a/Cpf1: Structure-function comparisons and implications for genome editing. <i>Wiley Interdisciplinary Reviews RNA</i> , 2018, 9, e1481.	3.2	164
1215	Inducible high-efficiency CRISPR-Cas9-targeted gene editing and precision base editing in African trypanosomes. <i>Scientific Reports</i> , 2018, 8, 7960.	1.6	53
1216	Cattle with a precise, zygote-mediated deletion safely eliminate the major milk allergen beta-lactoglobulin. <i>Scientific Reports</i> , 2018, 8, 7661.	1.6	51

#	ARTICLE	IF	CITATIONS
1217	CRISPR/Cas9 system targeting regulatory genes of HIV-1 inhibits viral replication in infected T-cell cultures. <i>Scientific Reports</i> , 2018, 8, 7784.	1.6	75
1218	CRISPR/Cas9 system: A promising technology for the treatment of inherited and neoplastic hematological diseases. <i>Advances in Cell and Gene Therapy</i> , 2018, 1, e10.	0.6	13
1219	Modeling Rare Bone Diseases in Animals. <i>Current Osteoporosis Reports</i> , 2018, 16, 458-465.	1.5	4
1220	Gene editing of stem cells for kidney disease modelling and therapeutic intervention. <i>Nephrology</i> , 2018, 23, 981-990.	0.7	7
1221	Efficient genome editing by FACS enrichment of paired D10A Cas9 nickases coupled with fluorescent proteins. <i>Archives of Pharmacal Research</i> , 2018, 41, 911-920.	2.7	4
1222	A CRISPRi screen in <i>E. coli</i> reveals sequence-specific toxicity of dCas9. <i>Nature Communications</i> , 2018, 9, 1912.	5.8	203
1223	The CRISPR tool kit for genome editing and beyond. <i>Nature Communications</i> , 2018, 9, 1911.	5.8	1,159
1224	Genome Editing Redefines Precision Medicine in the Cardiovascular Field. <i>Stem Cells International</i> , 2018, 2018, 1-11.	1.2	8
1225	No off-target mutations in functional genome regions of a CRISPR/Cas9-generated monkey model of muscular dystrophy. <i>Journal of Biological Chemistry</i> , 2018, 293, 11654-11658.	1.6	29
1226	Efficient CRISPR/Cas9-mediated editing of trinucleotide repeat expansion in myotonic dystrophy patient-derived iPS and myogenic cells. <i>Nucleic Acids Research</i> , 2018, 46, 8275-8298.	6.5	78
1227	Enhanced Cytosolic Delivery and Release of CRISPR/Cas9 by Black Phosphorus Nanosheets for Genome Editing. <i>Angewandte Chemie</i> , 2018, 130, 10425-10429.	1.6	43
1228	Enhanced Cytosolic Delivery and Release of CRISPR/Cas9 by Black Phosphorus Nanosheets for Genome Editing. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10268-10272.	7.2	154
1229	CRISPR-Cas systems: ushering in the new genome editing era. <i>Bioengineered</i> , 2018, 9, 214-221.	1.4	30
1230	How to create state-of-the-art genetic model systems: strategies for optimal CRISPR-mediated genome editing. <i>Nucleic Acids Research</i> , 2018, 46, 6435-6454.	6.5	37
1231	Guiding Lights in Genome Editing for Inherited Retinal Disorders: Implications for Gene and Cell Therapy. <i>Neural Plasticity</i> , 2018, 2018, 1-15.	1.0	29
1232	Detailed analysis of <i>HTT</i> repeat elements in human blood using targeted amplification-free long-read sequencing. <i>Human Mutation</i> , 2018, 39, 1262-1272.	1.1	62
1233	CRISPR/Cas9 genome surgery for retinal diseases. <i>Drug Discovery Today: Technologies</i> , 2018, 28, 23-32.	4.0	10
1234	CRISPR/Cas9-mediated efficient and precise targeted integration of donor DNA harboring double cleavage sites in <i>Xenopus tropicalis</i> . <i>FASEB Journal</i> , 2018, 32, 6495-6509.	0.2	5

#	ARTICLE	IF	CITATIONS
1235	Myoediting: Toward Prevention of Muscular Dystrophy by Therapeutic Genome Editing. <i>Physiological Reviews</i> , 2018, 98, 1205-1240.	13.1	31
1236	Unbiased Detection of Off-target Cleavage by CRISPR/Cas9 and TALENs Using Integration-defective Lentiviral Vectors. , 0, , 22-36.		0
1237	Detection of Insertion/Deletion (Indel) Events after Genome Targeting: Pros and Cons of the Available Methods. , 0, , 181-194.		2
1238	Kinetic Basis for DNA Target Specificity of CRISPR-Cas12a. <i>Molecular Cell</i> , 2018, 71, 816-824.e3.	4.5	225
1239	The Transition of Zebrafish Functional Genetics From Random Mutagenesis to Targeted Integration. , 2018, , 401-416.		3
1240	Optimizing CRISPR/Cas9 for the Diatom <i>Phaeodactylum tricornutum</i> . <i>Frontiers in Plant Science</i> , 2018, 9, 740.	1.7	73
1241	New breeding technique "genome editing" for crop improvement: applications, potentials and challenges. <i>3 Biotech</i> , 2018, 8, 336.	1.1	45
1242	Break Breast Cancer Addiction by CRISPR/Cas9 Genome Editing. <i>Journal of Cancer</i> , 2018, 9, 219-231.	1.2	21
1243	Biomedical applications of mRNA nanomedicine. <i>Nano Research</i> , 2018, 11, 5281-5309.	5.8	86
1244	The Current State and Future of CRISPR-Cas9 gRNA Design Tools. <i>Frontiers in Pharmacology</i> , 2018, 9, 749.	1.6	103
1245	VSV-G-Enveloped Vesicles for Traceless Delivery of CRISPR-Cas9. <i>Molecular Therapy - Nucleic Acids</i> , 2018, 12, 453-462.	2.3	85
1246	CRISPR/Cas9-based genome engineering of zebrafish using a seamless integration strategy. <i>FASEB Journal</i> , 2018, 32, 5132-5142.	0.2	25
1247	Generation and Utilization of CRISPR/Cas9 Screening Libraries in Mammalian Cells. , 0, , 223-234.		1
1248	Targeted Genome Editing Using Nuclease-assisted Vector Integration. , 0, , 237-248.		0
1249	Strategies to Genetically Modulate Dendritic Cells to Potentiate Anti-Tumor Responses in Hematologic Malignancies. <i>Frontiers in Immunology</i> , 2018, 9, 982.	2.2	11
1250	Gene Therapy for Chronic HBV "Can We Eliminate cccDNA?. <i>Genes</i> , 2018, 9, 207.	1.0	52
1251	Advances in understanding disease mechanisms and potential treatments for Crigler "Najjar syndrome. <i>Expert Opinion on Orphan Drugs</i> , 2018, 6, 425-439.	0.5	17
1252	CRISPR Crops: Plant Genome Editing Toward Disease Resistance. <i>Annual Review of Phytopathology</i> , 2018, 56, 479-512.	3.5	197

#	ARTICLE	IF	CITATIONS
1253	Generation of isogenic single and multiplex gene knockout mice by base editing-induced STOP. <i>Science Bulletin</i> , 2018, 63, 1101-1107.	4.3	9
1254	65 YEARS OF THE DOUBLE HELIX: The advancements of gene editing and potential application to hereditary cancer. <i>Endocrine-Related Cancer</i> , 2018, 25, T141-T158.	1.6	3
1255	Exploiting CRISPR-Cas9 technology to investigate individual histone modifications. <i>Nucleic Acids Research</i> , 2018, 46, e106-e106.	6.5	22
1256	CRISPR/Cas9 Technology as an Emerging Tool for Targeting Amyotrophic Lateral Sclerosis (ALS). <i>International Journal of Molecular Sciences</i> , 2018, 19, 906.	1.8	19
1257	CRISPR/Cas9-Advancing Orthopoxvirus Genome Editing for Vaccine and Vector Development. <i>Viruses</i> , 2018, 10, 50.	1.5	23
1258	Repair of double-strand breaks induced by CRISPR-Cas9 leads to large deletions and complex rearrangements. <i>Nature Biotechnology</i> , 2018, 36, 765-771.	9.4	1,251
1259	Stem cell-derived clade F AAVs mediate high-efficiency homologous recombination-based genome editing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E7379-E7388.	3.3	31
1260	CRISPR-Cas9: A cornerstone for the evolution of precision medicine. <i>Annals of Human Genetics</i> , 2018, 82, 331-357.	0.3	13
1261	A large-scale whole-genome sequencing analysis reveals highly specific genome editing by both Cas9 and Cpf1 (Cas12a) nucleases in rice. <i>Genome Biology</i> , 2018, 19, 84.	3.8	230
1262	Bioelectric-calcineurin signaling module regulates allometric growth and size of the zebrafish fin. <i>Scientific Reports</i> , 2018, 8, 10391.	1.6	42
1263	DeepCRISPR: optimized CRISPR guide RNA design by deep learning. <i>Genome Biology</i> , 2018, 19, 80.	3.8	285
1264	Human cellular models of medium spiny neuron development and Huntington disease. <i>Life Sciences</i> , 2018, 209, 179-196.	2.0	19
1265	CRISPR GENOME SURGERY IN THE RETINA IN LIGHT OF OFF-TARGETING. <i>Retina</i> , 2018, 38, 1443-1455.	1.0	11
1266	Use of gene-editing technology to introduce targeted modifications in pigs. <i>Journal of Animal Science and Biotechnology</i> , 2018, 9, 5.	2.1	48
1267	Development of genome engineering technologies in cattle: from random to specific. <i>Journal of Animal Science and Biotechnology</i> , 2018, 9, 16.	2.1	33
1268	Targeted genome engineering in human induced pluripotent stem cells from patients with hemophilia B using the CRISPR-Cas9 system. <i>Stem Cell Research and Therapy</i> , 2018, 9, 92.	2.4	59
1269	Inconclusive studies on possible CRISPR-Cas off-targets should moderate expectations about enzymes that have evolved to be non-specific. <i>Journal of Biosciences</i> , 2018, 43, 225-228.	0.5	3
1270	Specific targeting of point mutations in EGFR L858R-positive lung cancer by CRISPR/Cas9. <i>Laboratory Investigation</i> , 2018, 98, 968-976.	1.7	33

#	ARTICLE	IF	CITATIONS
1271	Promises and challenges in insect-plant interactions. <i>Entomologia Experimentalis Et Applicata</i> , 2018, 166, 319-343.	0.7	66
1272	Viral Hepatitis: Chronic Hepatitis B. , 2018, , .		1
1273	Strategies for controlling CRISPR/Cas9 off-target effects and biological variations in mammalian genome editing experiments. <i>Journal of Biotechnology</i> , 2018, 284, 91-101.	1.9	67
1274	Future Drugs in the Treatment of HBV. , 2018, , 105-117.		0
1275	i-GONAD (improved genome-editing via oviductal nucleic acids delivery), a convenient in vivo tool to produce genome-edited rats. <i>Scientific Reports</i> , 2018, 8, 12059.	1.6	34
1277	CRISPR/Cas9 Application for Gene Copy Fate Survey of Polyploid Vertebrates. <i>Frontiers in Genetics</i> , 2018, 9, 260.	1.1	8
1278	Transgenic Mouse Models in Cancer Research. <i>Frontiers in Oncology</i> , 2018, 8, 268.	1.3	130
1279	Investigating pediatric disorders with induced pluripotent stem cells. <i>Pediatric Research</i> , 2018, 84, 499-508.	1.1	9
1280	Precision gene editing technology and Applications in nephrology. <i>Nature Reviews Nephrology</i> , 2018, 14, 663-677.	4.1	38
1281	Generation of Transgene-Free Maize Male Sterile Lines Using the CRISPR/Cas9 System. <i>Frontiers in Plant Science</i> , 2018, 9, 1180.	1.7	76
1282	Gene editing in the context of an increasingly complex genome. <i>BMC Genomics</i> , 2018, 19, 595.	1.2	8
1283	CRISPR-Cas9: A New Addition to the Drug Metabolism and Disposition Tool Box. <i>Drug Metabolism and Disposition</i> , 2018, 46, 1776-1786.	1.7	28
1284	In vivo base editing of post-mitotic sensory cells. <i>Nature Communications</i> , 2018, 9, 2184.	5.8	166
1285	Targeting repair pathways with small molecules increases precise genome editing in pluripotent stem cells. <i>Nature Communications</i> , 2018, 9, 2164.	5.8	122
1286	Efficient CRISPR -based genome editing using tandem guide RNA s and editable surrogate reporters. <i>FEBS Open Bio</i> , 2018, 8, 1167-1175.	1.0	6
1287	Applications of CRISPR-Cas Enzymes in Cancer Therapeutics and Detection. <i>Trends in Cancer</i> , 2018, 4, 499-512.	3.8	89
1288	Synthetic switch-based baculovirus for transgene expression control and selective killing of hepatocellular carcinoma cells. <i>Nucleic Acids Research</i> , 2018, 46, e93-e93.	6.5	22
1289	A G542X cystic fibrosis mouse model for examining nonsense mutation directed therapies. <i>PLoS ONE</i> , 2018, 13, e0199573.	1.1	42

#	ARTICLE	IF	CITATIONS
1290	qEva-CRISPR: a method for quantitative evaluation of CRISPR/Cas-mediated genome editing in target and off-target sites. <i>Nucleic Acids Research</i> , 2018, 46, e101-e101.	6.5	17
1291	CRISPR/Cas9 -mediated gene knockout of <i>Anopheles gambiae</i> FREP1 suppresses malaria parasite infection. <i>PLoS Pathogens</i> , 2018, 14, e1006898.	2.1	109
1292	Induced pluripotent stem cells to generate skin tissue models. , 2018, , 399-419.		2
1293	CRISPR-Enabled Tools for Engineering Microbial Genomes and Phenotypes. <i>Biotechnology Journal</i> , 2018, 13, e1700586.	1.8	30
1294	Gene editing vectors for studying nicotinic acetylcholine receptors in cholinergic transmission. <i>European Journal of Neuroscience</i> , 2019, 50, 2224-2238.	1.2	7
1295	Gene Editing in Regenerative Medicine. , 2019, , 741-759.		0
1296	CRISPR for Neuromuscular Disorders: Gene Editing and Beyond. <i>Physiology</i> , 2019, 34, 341-353.	1.6	14
1297	Brain Organoids as Tools for Modeling Human Neurodevelopmental Disorders. <i>Physiology</i> , 2019, 34, 365-375.	1.6	32
1298	CRISPR/Cas9-Mediated Knockout and <i>In Situ</i> Inversion of the ORF57 Gene from All Copies of the Kaposi's Sarcoma-Associated Herpesvirus Genome in BCBL-1 Cells. <i>Journal of Virology</i> , 2019, 93, .	1.5	24
1299	Off-Target Editing by CRISPR-Guided DNA Base Editors. <i>Biochemistry</i> , 2019, 58, 3727-3734.	1.2	40
1300	Introducing a Gene Knockout Directly Into the Amastigote Stage of <i>Trypanosoma cruzi</i> Using the CRISPR/Cas9 System. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	4
1301	A quantitative risk assessment method for synthetic biology products in the environment. <i>Science of the Total Environment</i> , 2019, 696, 133940.	3.9	9
1302	Battling CRISPR-Cas9 off-target genome editing. <i>Cell Biology and Toxicology</i> , 2019, 35, 403-406.	2.4	33
1303	Emerging New Therapies for Viral Hepatitis. , 2019, , 211-227.		0
1304	Combinatorial mutagenesis en masse optimizes the genome editing activities of SpCas9. <i>Nature Methods</i> , 2019, 16, 722-730.	9.0	44
1305	Cas9-edited immune checkpoint blockade PD-1 DNA polyaptamer hydrogel for cancer immunotherapy. <i>Biomaterials</i> , 2019, 218, 119359.	5.7	64
1306	Delivering Cas9/sgRNA ribonucleoprotein (RNP) by lentiviral capsid-based bionanoparticles for efficient "hit-and-run" genome editing. <i>Nucleic Acids Research</i> , 2019, 47, e99-e99.	6.5	67
1307	Single-Cell Editing: The CRISPR/Cas9 and Applications. , 2019, , 397-415.		1



#	ARTICLE	IF	CITATIONS
1309	The Progress of CRISPR/Cas9-Mediated Gene Editing in Generating Mouse/Zebrafish Models of Human Skeletal Diseases. <i>Computational and Structural Biotechnology Journal</i> , 2019, 17, 954-962.	1.9	23
1310	CRISPR-Cas9 system: A new-fangled dawn in gene editing. <i>Life Sciences</i> , 2019, 232, 116636.	2.0	160
1311	Life-Long AAV-Mediated CRISPR Genome Editing in Dystrophic Heart Improves Cardiomyopathy without Causing Serious Lesions in mdx Mice. <i>Molecular Therapy</i> , 2019, 27, 1407-1414.	3.7	39
1312	CRISPR/Cas9 genome editing technology in filamentous fungi: progress and perspective. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 6919-6932.	1.7	102
1313	Engineering nucleic acid chemistry for precise and controllable CRISPR/Cas9 genome editing. <i>Science Bulletin</i> , 2019, 64, 1841-1849.	4.3	15
1314	Establishment of knockout adult sea urchins by using a CRISPR-Cas9 system. <i>Development Growth and Differentiation</i> , 2019, 61, 378-388.	0.6	30
1315	Pluripotent stem cell-derived organogenesis in the rat model system. <i>Transgenic Research</i> , 2019, 28, 287-297.	1.3	7
1316	Delivery Methods for Treatment of Genetic Disorders. , 2019, , 447-461.		0
1317	Gene editing: Towards the third generation of adoptive T-cell transfer therapies. <i>Immuno-Oncology Technology</i> , 2019, 1, 19-26.	0.2	7
1318	CDetection: CRISPR-Cas12b-based DNA detection with sub-attomolar sensitivity and single-base specificity. <i>Genome Biology</i> , 2019, 20, 132.	3.8	224
1319	Friend or Foe? Evidence Indicates Endogenous Exosomes Can Deliver Functional gRNA and Cas9 Protein. <i>Small</i> , 2019, 15, e1902686.	5.2	58
1320	Modular one-pot assembly of CRISPR arrays enables library generation and reveals factors influencing crRNA biogenesis. <i>Nature Communications</i> , 2019, 10, 2948.	5.8	75
1321	Two chemical-controlled switchable Cas9s for tunable gene editing. <i>Biophysics Reports</i> , 2019, 5, 161-165.	0.2	1
1322	Recent advances in developing and applying biosensors for synthetic biology. <i>Nano Futures</i> , 2019, 3, 042002.	1.0	9
1323	CRISPR-Cas12a Nucleases Bind Flexible DNA Duplexes without RNA/DNA Complementarity. <i>ACS Omega</i> , 2019, 4, 17140-17147.	1.6	14
1325	Experimental Modeling of Myeloproliferative Neoplasms. <i>Genes</i> , 2019, 10, 813.	1.0	12
1326	Molecular basis for the PAM expansion and fidelity enhancement of an evolved Cas9 nuclease. <i>PLoS Biology</i> , 2019, 17, e3000496.	2.6	17
1327	Methods and applications of CRISPR/Cas system for genome editing in stem cells. <i>Cell Regeneration</i> , 2019, 8, 33-41.	1.1	24

#	ARTICLE	IF	CITATIONS
1329	The CRISPR-Cas13a Gene Editing System Induces Collateral Cleavage of RNA in Glioma Cells. <i>Advanced Science</i> , 2019, 6, 1901299.	5.6	98
1330	Current status, challenges, and future prospects of plant genome editing in China. <i>Plant Biotechnology Reports</i> , 2019, 13, 459-472.	0.9	4
1331	The technical risks of human gene editing. <i>Human Reproduction</i> , 2019, 34, 2104-2111.	0.4	21
1332	Genome Editing in Plants: Exploration of Technological Advancements and Challenges. <i>Cells</i> , 2019, 8, 1386.	1.8	115
1333	Can Designer Indels Be Tailored by Gene Editing?. <i>BioEssays</i> , 2019, 41, 1900126.	1.2	3
1334	Hemophilia A ameliorated in mice by CRISPR-based in vivo genome editing of human Factor VIII. <i>Scientific Reports</i> , 2019, 9, 16838.	1.6	46
1335	Molecular Simulations have Boosted Knowledge of CRISPR/Cas9: A Review. <i>Journal of Self-Assembly and Molecular Electronics (SAME)</i> , 2019, 7, 45-72.	0.0	2
1336	Mixture modeling for industrial soft sensor application based on semi-supervised probabilistic PLS. <i>Journal of Process Control</i> , 2019, 84, 46-55.	1.7	25
1337	Biological plasticity rescues target activity in CRISPR knock outs. <i>Nature Methods</i> , 2019, 16, 1087-1093.	9.0	159
1338	Efficient gene correction of an aberrant splice site in $\beta$ -thalassaemia iPSCs by CRISPR/Cas9 and single-strand oligodeoxynucleotides. <i>Journal of Cellular and Molecular Medicine</i> , 2019, 23, 8046-8057.	1.6	14
1339	Block Polymer Micelles Enable CRISPR/Cas9 Ribonucleoprotein Delivery: Physicochemical Properties Affect Packaging Mechanisms and Gene Editing Efficiency. <i>Macromolecules</i> , 2019, 52, 8197-8206.	2.2	48
1340	Lipopeptide-Based Nanosome-Mediated Delivery of Hyperaccurate CRISPR/Cas9 Ribonucleoprotein for Gene Editing. <i>Small</i> , 2019, 15, e1903172.	5.2	10
1341	More precise, more universal and more specific – the next generation of RNA-guided endonucleases for genome editing. <i>FEBS Journal</i> , 2019, 286, 4657-4660.	2.2	9
1342	Cardiac Pathophysiology and the Future of Cardiac Therapies in Duchenne Muscular Dystrophy. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4098.	1.8	92
1343	Targeted exon skipping with AAV-mediated split adenine base editors. <i>Cell Discovery</i> , 2019, 5, 41.	3.1	35
1344	A non-cationic nucleic acid nanogel for the delivery of the CRISPR/Cas9 gene editing tool. <i>Nanoscale</i> , 2019, 11, 17211-17215.	2.8	64
1345	Comprehensive Analysis of CRISPR/Cas9-Mediated Mutagenesis in <i>Arabidopsis thaliana</i> by Genome-wide Sequencing. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4125.	1.8	10
1346	RNA-Guided Recombinase-Cas9 Fusion Targets Genomic DNA Deletion and Integration. <i>CRISPR Journal</i> , 2019, 2, 209-222.	1.4	14

#	ARTICLE	IF	CITATIONS
1347	PPM1D mutations silence NAPRT gene expression and confer NAMPT inhibitor sensitivity in glioma. Nature Communications, 2019, 10, 3790.	5.8	54
1348	Microbial CRISPRi and CRISPRa Systems for Metabolic Engineering. Biotechnology and Bioprocess Engineering, 2019, 24, 579-591.	1.4	31
1349	Guide RNA modification as a way to improve CRISPR/Cas9-based genome-editing systems. Biochimie, 2019, 167, 49-60.	1.3	45
1350	A role for alternative end-joining factors in homologous recombination and genome editing in Chinese hamster ovary cells. DNA Repair, 2019, 82, 102691.	1.3	16
1351	Analysis of Single Nucleotide Variants in CRISPR-Cas9 Edited Zebrafish Exomes Shows No Evidence of Off-Target Inflation. Frontiers in Genetics, 2019, 10, 949.	1.1	7
1352	Genetically Engineered Mouse Models of Gliomas: Technological Developments for Translational Discoveries. Cancers, 2019, 11, 1335.	1.7	31
1353	Enhanced CRISPR-based DNA demethylation by Casilio-ME-mediated RNA-guided coupling of methylcytosine oxidation and DNA repair pathways. Nature Communications, 2019, 10, 4296.	5.8	41
1354	A Broad Application of CRISPR Cas9 in Infectious Diseases of Central Nervous System. Journal of NeuroImmune Pharmacology, 2019, 14, 578-594.	2.1	5
1355	CRISPR technologies for stem cell engineering and regenerative medicine. Biotechnology Advances, 2019, 37, 107447.	6.0	59
1356	Engineered materials for in vivo delivery of genome-editing machinery. Nature Reviews Materials, 2019, 4, 726-737.	23.3	139
1357	Rationally engineered <i>Staphylococcus aureus</i> Cas9 nucleases with high genome-wide specificity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20969-20976.	3.3	81
1358	Cas9 Cleavage of Viral Genomes Primes the Acquisition of New Immunological Memories. Cell Host and Microbe, 2019, 26, 515-526.e6.	5.1	46
1359	Using Genomics to Adapt Crops to Climate Change. , 2019, , 91-109.		4
1360	Engineering of CRISPR-Cas12b for human genome editing. Nature Communications, 2019, 10, 212.	5.8	249
1361	CRISPR-Cas: a tool for cancer research and therapeutics. Nature Reviews Clinical Oncology, 2019, 16, 281-295.	12.5	127
1362	Gene editing in plants: progress and challenges. National Science Review, 2019, 6, 421-437.	4.6	215
1363	Multiple-gene targeting and mismatch tolerance can confound analysis of genome-wide pooled CRISPR screens. Genome Biology, 2019, 20, 21.	3.8	34
1364	Directed evolution studies of a thermophilic Type II-C Cas9. Methods in Enzymology, 2019, 616, 265-288.	0.4	9

#	ARTICLE	IF	CITATIONS
1365	Lecithin nano-liposomal particle as a CRISPR/Cas9 complex delivery system for treating type 2 diabetes. <i>Journal of Nanobiotechnology</i> , 2019, 17, 19.	4.2	72
1366	CRISPR-Based Tools in Immunity. <i>Annual Review of Immunology</i> , 2019, 37, 571-597.	9.5	38
1367	mIDEEP: Multi-Functional Enzyme Function Prediction With Hierarchical Multi-Label Deep Learning. <i>Frontiers in Genetics</i> , 2018, 9, 714.	1.1	93
1368	Genome Engineering Tools in Plant Synthetic Biology. , 2019, , 47-73.		12
1369	CRISPR/Cas9 editing of endogenous banana streak virus in the B genome of <i>Musa</i> spp. overcomes a major challenge in banana breeding. <i>Communications Biology</i> , 2019, 2, 46.	2.0	208
1370	Multi-omic Analyses Reveal Minimal Impact of the CRISPR-Cas9 Nuclease on Cultured Human Cells. <i>Journal of Proteome Research</i> , 2019, 18, 1054-1063.	1.8	2
1371	Orthologous CRISPR/Cas9 systems for specific and efficient degradation of covalently closed circular DNA of hepatitis B virus. <i>Cellular and Molecular Life Sciences</i> , 2019, 76, 1779-1794.	2.4	57
1372	CRISPR-Cas9 for cancer therapy: Opportunities and challenges. <i>Cancer Letters</i> , 2019, 447, 48-55.	3.2	135
1373	Fluorescence-based methods for measuring target interference by CRISPR-Cas systems. <i>Methods in Enzymology</i> , 2019, 616, 61-85.	0.4	5
1374	Editing streptomycete genomes in the CRISPR/Cas9 age. <i>Natural Product Reports</i> , 2019, 36, 1237-1248.	5.2	56
1376	CRISPR/Cas9 for Sickle Cell Disease: Applications, Future Possibilities, and Challenges. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1144, 37-52.	0.8	37
1377	Quantifying CRISPR off-target effects. <i>Emerging Topics in Life Sciences</i> , 2019, 3, 327-334.	1.1	9
1378	Microcomputed tomography and genetic analysis of a rare case of Caffey's disease in a 5-year-old girl. <i>International Journal of Osteoarchaeology</i> , 2019, 29, 854-859.	0.6	1
1379	Editing the Central Nervous System Through CRISPR/Cas9 Systems. <i>Frontiers in Molecular Neuroscience</i> , 2019, 12, 110.	1.4	31
1381	CRISPR-Cas system: Toward a more efficient technology for genome editing and beyond. <i>Journal of Cellular Biochemistry</i> , 2019, 120, 16379-16392.	1.2	9
1382	Embryonic Stem Cells and Gene Manipulation in Rat. <i>Methods in Molecular Biology</i> , 2019, 2018, 115-130.	0.4	2
1383	Gene therapy for hearing loss. <i>Human Molecular Genetics</i> , 2019, 28, R65-R79.	1.4	78
1384	Delivery of CRISPR/Cas9 for therapeutic genome editing. <i>Journal of Gene Medicine</i> , 2019, 21, e3107.	1.4	93

#	ARTICLE	IF	CITATIONS
1385	Development of CRISPR-Cas systems for genome editing and beyond. Quarterly Reviews of Biophysics, 2019, 52, .	2.4	108
1386	Cas9 Ribonucleoprotein Complex Delivery: Methods and Applications for Neuroinflammation. Journal of NeuroImmune Pharmacology, 2019, 14, 565-577.	2.1	10
1387	Lessening of porcine epidemic diarrhoea virus susceptibility in piglets after editing of the CMP-N-glycolylneuraminic acid hydroxylase gene with CRISPR/Cas9 to nullify N-glycolylneuraminic acid expression. PLoS ONE, 2019, 14, e0217236.	1.1	19
1388	Heat shock-inducible CRISPR/Cas9 system generates heritable mutations in rice. Plant Direct, 2019, 3, e00145.	0.8	61
1389	Enhancing the Therapeutic Potential of Mesenchymal Stem Cells with the CRISPR-Cas System. Stem Cell Reviews and Reports, 2019, 15, 463-473.	5.6	25
1390	Generation of an MC3R knock-out pig by CRISPR/Cas9 combined with somatic cell nuclear transfer (SCNT) technology. Lipids in Health and Disease, 2019, 18, 122.	1.2	8
1391	Efficient disruption of bcr-abl gene by CRISPR RNA-guided FokI nucleases depresses the oncogenesis of chronic myeloid leukemia cells. Journal of Experimental and Clinical Cancer Research, 2019, 38, 224.	3.5	16
1392	Chromatin modification and remodeling in schizophrenia. , 2019, , 303-330.		1
1393	Highly efficient editing of the $\beta$ -globin gene in patient-derived hematopoietic stem and progenitor cells to treat sickle cell disease. Nucleic Acids Research, 2019, 47, 7955-7972.	6.5	110
1394	Principles of and strategies for germline gene therapy. Nature Medicine, 2019, 25, 890-897.	15.2	49
1395	Multiplexed promoterless gene expression with CRISPRReader. Genome Biology, 2019, 20, 113.	3.8	17
1396	Manipulation of spermatogonial stem cells in livestock species. Journal of Animal Science and Biotechnology, 2019, 10, 46.	2.1	23
1397	Single-cell cloning of human T-cell lines reveals clonal variation in cell death responses to chemotherapeutics. Cancer Genetics, 2019, 237, 69-77.	0.2	6
1398	Model-based understanding of single-cell CRISPR screening. Nature Communications, 2019, 10, 2233.	5.8	61
1399	Genome editing for blood disorders: state of the art and recent advances. Emerging Topics in Life Sciences, 2019, 3, 289-299.	1.1	4
1400	Evaluation and Reduction of CRISPR Off-Target Cleavage Events. Nucleic Acid Therapeutics, 2019, 29, 167-174.	2.0	71
1401	Limitations in the Design of Chimeric Antigen Receptors for Cancer Therapy. Cells, 2019, 8, 472.	1.8	122
1402	A CRISPR/Cas9 based polymeric nanoparticles to treat/inhibit microbial infections. Seminars in Cell and Developmental Biology, 2019, 96, 44-52.	2.3	21

#	ARTICLE	IF	CITATIONS
1403	Frequency of off-targeting in genome edited pigs produced via direct injection of the CRISPR/Cas9 system into developing embryos. <i>BMC Biotechnology</i> , 2019, 19, 25.	1.7	20
1404	CRISPR/Cas9-based epigenome editing: An overview of dCas9-based tools with special emphasis on off-target activity. <i>Methods</i> , 2019, 164-165, 109-119.	1.9	42
1405	Broad-Spectrum Proteome Editing with an Engineered Bacterial Ubiquitin Ligase Mimic. <i>ACS Central Science</i> , 2019, 5, 852-866.	5.3	34
1406	CRISPR-Cas9: A multifaceted therapeutic strategy for cancer treatment. <i>Seminars in Cell and Developmental Biology</i> , 2019, 96, 4-12.	2.3	15
1407	A Plasmid-Expressed CRISPR/Cas9 System Suppresses Replication of HSV Type I in a Vero Cell Culture. <i>Molecular Biology</i> , 2019, 53, 70-78.	0.4	13
1408	Harnessing Genome Editing Techniques to Engineer Disease Resistance in Plants. <i>Frontiers in Plant Science</i> , 2019, 10, 550.	1.7	62
1409	Biofabrication of Autologous Human Hepatocytes for Transplantation: How Do We Get There?. <i>Gene Expression</i> , 2019, 19, 89-95.	0.5	3
1410	Precise editing of plant genomes – Prospects and challenges. <i>Seminars in Cell and Developmental Biology</i> , 2019, 96, 115-123.	2.3	15
1411	Development and Application of Base Editors. <i>CRISPR Journal</i> , 2019, 2, 91-104.	1.4	46
1412	CRISPR-Cas9 Editing in Maize: Systematic Evaluation of Off-target Activity and Its Relevance in Crop Improvement. <i>Scientific Reports</i> , 2019, 9, 6729.	1.6	77
1413	A High-Throughput Platform to Identify Small-Molecule Inhibitors of CRISPR-Cas9. <i>Cell</i> , 2019, 177, 1067-1079.e19.	13.5	133
1414	Unified energetics analysis unravels SpCas9 cleavage activity for optimal gRNA design. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8693-8698.	3.3	46
1415	RNA interference and CRISPR: Promising approaches to better understand and control citrus pathogens. <i>Microbiological Research</i> , 2019, 226, 1-9.	2.5	15
1416	Function and Immunogenicity of Gene-corrected iPSC-derived Hepatocyte-Like Cells in Restoring Low Density Lipoprotein Uptake in Homozygous Familial Hypercholesterolemia. <i>Scientific Reports</i> , 2019, 9, 4695.	1.6	19
1417	CRISPR/Cas9 – An evolving biological tool kit for cancer biology and oncology. <i>Npj Precision Oncology</i> , 2019, 3, 8.	2.3	61
1418	<sc>CRISPR</sc>-mediated modification of citrus. <i>Plant Biotechnology Journal</i> , 2019, 17, 1928-1937.	4.1	134
1419	Utilization of the CRISPR-Cas9 Gene Editing System to Dissect Neuroinflammatory and Neuropharmacological Mechanisms in Parkinson’s Disease. <i>Journal of NeuroImmune Pharmacology</i> , 2019, 14, 595-607.	2.1	16
1420	Evaluating and Enhancing Target Specificity of Gene-Editing Nucleases and Deaminases. <i>Annual Review of Biochemistry</i> , 2019, 88, 191-220.	5.0	120

#	ARTICLE	IF	CITATIONS
1421	CRISPR/Cas9: a powerful tool for identification of new targets for cancer treatment. <i>Drug Discovery Today</i> , 2019, 24, 955-970.	3.2	52
1422	Advances in CRISPR/Cas9 Technology for <i>in Vivo</i> Translation. <i>Biological and Pharmaceutical Bulletin</i> , 2019, 42, 304-311.	0.6	4
1423	Huntingtin Lowering Strategies for Disease Modification in Huntington's Disease. <i>Neuron</i> , 2019, 101, 801-819.	3.8	202
1424	Deciphering Off-Target Effects in CRISPR-Cas9 through Accelerated Molecular Dynamics. <i>ACS Central Science</i> , 2019, 5, 651-662.	5.3	99
1425	CRISPR-Cas9 genome editing induces megabase-scale chromosomal truncations. <i>Nature Communications</i> , 2019, 10, 1136.	5.8	292
1426	Delivering on the promise of gene editing for cystic fibrosis. <i>Genes and Diseases</i> , 2019, 6, 97-108.	1.5	40
1427	CRISPR-Cas: Converting A Bacterial Defence Mechanism into A State-of-the-Art Genetic Manipulation Tool. <i>Antibiotics</i> , 2019, 8, 18.	1.5	48
1428	Efforts to improve the efficiency and specificity of CRISPR-Cas9 techniques. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	0
1429	Current Controversies in Prenatal Diagnosis 3: Gene editing should replace embryo selection following PGD. <i>Prenatal Diagnosis</i> , 2019, 39, 344-350.	1.1	8
1430	Use of CRISPR/Cas9 for the Modification of the Mouse Genome. <i>Methods in Molecular Biology</i> , 2019, 1953, 213-230.	0.4	3
1432	CRISPR-gRNA Design. <i>Methods in Molecular Biology</i> , 2019, 1961, 3-11.	0.4	11
1433	Editing the Genome of Human Induced Pluripotent Stem Cells Using CRISPR/Cas9 Ribonucleoprotein Complexes. <i>Methods in Molecular Biology</i> , 2019, 1961, 153-183.	0.4	36
1434	Optimizing genome editing strategy by primer-extension-mediated sequencing. <i>Cell Discovery</i> , 2019, 5, 18.	3.1	61
1435	Cytosolic delivery of CRISPR/Cas9 ribonucleoproteins for genome editing using chitosan-coated red fluorescent protein. <i>Chemical Communications</i> , 2019, 55, 4707-4710.	2.2	62
1436	CRISPR-Mediated Knockout of EGFP: Part I. , 2019, , 169-178.		0
1437	Advanced CRISPR: Part I. , 2019, , 181-190.		0
1438	Therapeutic Genome Editing in Cardiovascular Diseases. <i>JACC Basic To Translational Science</i> , 2019, 4, 122-131.	1.9	32
1439	CRISPR-Cas in <i>Streptococcus pyogenes</i> . <i>RNA Biology</i> , 2019, 16, 380-389.	1.5	86

#	ARTICLE	IF	CITATIONS
1441	A Pan-ALDH1A Inhibitor Induces Necroptosis in Ovarian Cancer Stem-like Cells. <i>Cell Reports</i> , 2019, 26, 3061-3075.e6.	2.9	108
1442	A Practical Guide to Genome Editing Using Targeted Nuclease Technologies. , 2019, 9, 665-714.		7
1443	CRISPR-Cas based targeting of host and viral genes as an antiviral strategy. <i>Seminars in Cell and Developmental Biology</i> , 2019, 96, 53-64.	2.3	22
1444	An artificial triazole backbone linkage provides a split-and-click strategy to bioactive chemically modified CRISPR sgRNA. <i>Nature Communications</i> , 2019, 10, 1610.	5.8	48
1445	Non-viral Delivery of Zinc Finger Nuclease mRNA Enables Highly Efficient In Vivo Genome Editing of Multiple Therapeutic Gene Targets. <i>Molecular Therapy</i> , 2019, 27, 866-877.	3.7	64
1446	SAA-Cas9: A tunable genome editing system with increased bio-safety and reduced off-target effects. <i>Journal of Genetics and Genomics</i> , 2019, 46, 145-148.	1.7	1
1447	Multiplexed and tunable transcriptional activation by promoter insertion using nuclease-assisted vector integration. <i>Nucleic Acids Research</i> , 2019, 47, e67-e67.	6.5	8
1448	Disruptive Technology: CRISPR/Cas-Based Tools and Approaches. <i>Molecular Diagnosis and Therapy</i> , 2019, 23, 187-200.	1.6	22
1449	Targeted gene insertion into Z chromosome of chicken primordial germ cells for avian sexing model development. <i>FASEB Journal</i> , 2019, 33, 8519-8529.	0.2	33
1450	Development and Application of CRISPR/Cas System in Rice. <i>Rice Science</i> , 2019, 26, 69-76.	1.7	12
1451	Identification of a Xist silencing domain by Tiling CRISPR. <i>Scientific Reports</i> , 2019, 9, 2408.	1.6	17
1452	New Applications of Synthetic Biology Tools for Cyanobacterial Metabolic Engineering. <i>Frontiers in Bioengineering and Biotechnology</i> , 2019, 7, 33.	2.0	150
1454	Modeling the Function of TATA Box Binding Protein in Transcriptional Changes Induced by HIV-1 Tat in Innate Immune Cells and the Effect of Methamphetamine Exposure. <i>Frontiers in Immunology</i> , 2019, 9, 3110.	2.2	11
1455	Exosome-mediated horizontal gene transfer occurs in double-strand break repair during genome editing. <i>Communications Biology</i> , 2019, 2, 57.	2.0	40
1456	Chemistry, manufacturing and controls for gene modified hematopoietic stem cells. <i>Cytherapy</i> , 2019, 21, 358-366.	0.3	5
1457	A $\Delta^9$ desaturase (SlitDes11) is associated with the biosynthesis of ester sex pheromone components in <i>Spodoptera litura</i> . <i>Pesticide Biochemistry and Physiology</i> , 2019, 156, 152-159.	1.6	10
1458	RNA Strand Displacement Responsive CRISPR/Cas9 System for mRNA Sensing. <i>Analytical Chemistry</i> , 2019, 91, 3989-3996.	3.2	106
1459	Microenvironment-Responsive Delivery of the Cas9 RNA-Guided Endonuclease for Efficient Genome Editing. <i>Bioconjugate Chemistry</i> , 2019, 30, 898-906.	1.8	31



#	ARTICLE	IF	CITATIONS
1460	Developments and opportunities in fungal strain engineering for the production of novel enzymes and enzyme cocktails for plant biomass degradation. <i>Biotechnology Advances</i> , 2019, 37, 107361.	6.0	46
1461	Delivering SaCas9 mRNA by lentivirus-like bionanoparticles for transient expression and efficient genome editing. <i>Nucleic Acids Research</i> , 2019, 47, e44-e44.	6.5	64
1462	CRISPR-Cas9 Causes Chromosomal Instability and Rearrangements in Cancer Cell Lines, Detectable by Cytogenetic Methods. <i>CRISPR Journal</i> , 2019, 2, 406-416.	1.4	51
1464	Genome-Wide Off-Target Analysis in CRISPR-Cas9 Modified Mice and Their Offspring. <i>G3: Genes, Genomes, Genetics</i> , 2019, 9, 3645-3651.	0.8	26
1465	The Many Faces of Gene Regulation in Cancer: A Computational Oncogenomics Outlook. <i>Genes</i> , 2019, 10, 865.	1.0	34
1467	TraFo-CRISPR: Enhanced Genome Engineering by Transient Foamy Virus Vector-Mediated Delivery of CRISPR/Cas9 Components. <i>Molecular Therapy - Nucleic Acids</i> , 2019, 18, 708-726.	2.3	12
1468	CRISPR-Cas9 and Its Therapeutic Applications for Retinal Diseases. <i>International Ophthalmology Clinics</i> , 2019, 59, 3-13.	0.3	2
1469	Expanding the CRISPR Toolbox with ErCas12a in Zebrafish and Human Cells. <i>CRISPR Journal</i> , 2019, 2, 417-433.	1.4	35
1470	Retroelement Insertion in a CRISPR/Cas9 Editing Site in the Early Embryo Intensifies Genetic Mosaicism. <i>Frontiers in Cell and Developmental Biology</i> , 2019, 7, 273.	1.8	8
1471	Engineering guide RNA to reduce the off-target effects of CRISPR. <i>Journal of Genetics and Genomics</i> , 2019, 46, 523-529.	1.7	20
1472	Truncated gRNA reduces CRISPR/Cas9-mediated off-target rate for MSTN gene knockout in bovines. <i>Journal of Integrative Agriculture</i> , 2019, 18, 2835-2843.	1.7	5
1473	Advances in detecting and reducing off-target effects generated by CRISPR-mediated genome editing. <i>Journal of Genetics and Genomics</i> , 2019, 46, 513-521.	1.7	45
1474	Novel miR-29b target regulation patterns are revealed in two different cell lines. <i>Scientific Reports</i> , 2019, 9, 17449.	1.6	9
1475	Evaluation of the effects of sequence length and microsatellite instability on single-guide RNA activity and specificity. <i>International Journal of Biological Sciences</i> , 2019, 15, 2641-2653.	2.6	8
1476	Synthetic chimeric nucleases function for efficient genome editing. <i>Nature Communications</i> , 2019, 10, 5524.	5.8	24
1478	Genetically Modified Babies and a First Application of Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR-Cas9). <i>Obstetrics and Gynecology</i> , 2019, 134, 157-162.	1.2	6
1479	CRISPR-Cas3 induces broad and unidirectional genome editing in human cells. <i>Nature Communications</i> , 2019, 10, 5302.	5.8	127
1480	Optimizing sgRNA length to improve target specificity and efficiency for the GGTA1 gene using the CRISPR/Cas9 gene editing system. <i>PLoS ONE</i> , 2019, 14, e0226107.	1.1	31

#	ARTICLE	IF	CITATIONS
1481	Understanding CRISPR/Cas9: A Magnificent Tool for Plant Genome Editing. , 2019, , .		1
1482	Synergizing CRISPR/Cas9 off-target predictions for ensemble insights and practical applications. <i>Bioinformatics</i> , 2019, 35, 1108-1115.	1.8	25
1483	An <i>LDHa</i> single allele CHO cell mutant exhibits altered metabolic state and enhanced culture performance. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 1488-1498.	1.6	5
1484	Synthetic switch to minimize CRISPR off-target effects by self-restricting Cas9 transcription and translation. <i>Nucleic Acids Research</i> , 2019, 47, e13-e13.	6.5	56
1485	A lentivirus-based system for Cas9/gRNA expression and subsequent removal by Cre-mediated recombination. <i>Methods</i> , 2019, 156, 79-84.	1.9	17
1486	Generating and working with <i>Drosophila</i> cell cultures: Current challenges and opportunities. <i>Wiley Interdisciplinary Reviews: Developmental Biology</i> , 2019, 8, e339.	5.9	25
1487	Knock-Down of a <i>ligIV</i> Homologue Enables DNA Integration <i>via</i> Homologous Recombination in the Marine Diatom <i>Phaeodactylum tricornutum</i> . <i>ACS Synthetic Biology</i> , 2019, 8, 57-69.	1.9	13
1488	Principles of gene editing techniques and applications in animal husbandry. <i>3 Biotech</i> , 2019, 9, 28.	1.1	8
1489	A pipeline for characterization of novel Cas9 orthologs. <i>Methods in Enzymology</i> , 2019, 616, 219-240.	0.4	13
1490	Genome editing in primary cells and in vivo using viral-derived Nanoblades loaded with Cas9-sgRNA ribonucleoproteins. <i>Nature Communications</i> , 2019, 10, 45.	5.8	195
1491	Efficient generation of CLPG1 edited rabbits using the CRISPR/Cas9 system. <i>Reproduction in Domestic Animals</i> , 2019, 54, 538-544.	0.6	6
1492	Spatial control of in vivo CRISPR-Cas9 genome editing via nanomagnets. <i>Nature Biomedical Engineering</i> , 2019, 3, 126-136.	11.6	107
1493	In vivo cell type-specific CRISPR gene editing for sleep research. <i>Journal of Neuroscience Methods</i> , 2019, 316, 99-102.	1.3	6
1494	TILLING: an alternative path for crop improvement. <i>Journal of Crop Improvement</i> , 2019, 33, 83-109.	0.9	14
1495	Polarized displacement by transcription activator-like effectors for regulatory circuits. <i>Nature Chemical Biology</i> , 2019, 15, 80-87.	3.9	9
1496	The first genetically gene-edited babies: It's irresponsible and too early. <i>Animal Models and Experimental Medicine</i> , 2019, 2, 1-4.	1.3	7
1497	Sorghum. <i>Methods in Molecular Biology</i> , 2019, , .	0.4	5
1498	The CRISPR/Cas9 system and its applications in crop genome editing. <i>Critical Reviews in Biotechnology</i> , 2019, 39, 321-336.	5.1	109

#	ARTICLE	IF	CITATIONS
1499	iPSCs as a Platform for Disease Modeling, Drug Screening, and Personalized Therapy in Muscular Dystrophies. <i>Cells</i> , 2019, 8, 20.	1.8	40
1500	CRISPR-DT: designing gRNAs for the CRISPR-Cpf1 system with improved target efficiency and specificity. <i>Bioinformatics</i> , 2019, 35, 2783-2789.	1.8	62
1501	Genome-wide profiling of adenine base editor specificity by EndoV-seq. <i>Nature Communications</i> , 2019, 10, 67.	5.8	103
1502	TALEN-Mediated Gene Targeting for Cystic Fibrosis-Gene Therapy. <i>Genes</i> , 2019, 10, 39.	1.0	25
1503	Gene Editing in Sorghum Through <i>Agrobacterium</i> . <i>Methods in Molecular Biology</i> , 2019, 1931, 155-168.	0.4	8
1504	Combining orthogonal CRISPR and CRISPRi systems for genome engineering and metabolic pathway modulation in <i>Escherichia coli</i> . <i>Biotechnology and Bioengineering</i> , 2019, 116, 1066-1079.	1.7	29
1505	CD44 standard isoform is involved in maintenance of cancer stem cells of a hepatocellular carcinoma cell line. <i>Cancer Medicine</i> , 2019, 8, 773-782.	1.3	47
1506	CRISPR/Cas9-Based Genome Editing and its Applications for Functional Genomic Analyses in Plants. <i>Small Methods</i> , 2019, 3, 1800473.	4.6	24
1507	Crisflash: open-source software to generate CRISPR guide RNAs against genomes annotated with individual variation. <i>Bioinformatics</i> , 2019, 35, 3146-3147.	1.8	31
1508	Precision Control of CRISPR-Cas9 Using Small Molecules and Light. <i>Biochemistry</i> , 2019, 58, 234-244.	1.2	92
1509	CRISPR-Cas9 a boon or bane: the bumpy road ahead to cancer therapeutics. <i>Cancer Cell International</i> , 2019, 19, 12.	1.8	46
1511	Gene Disruption Using CRISPR-Cas9 Technology. <i>Methods in Molecular Biology</i> , 2019, 1881, 201-209.	0.4	1
1512	CRISPR-Cas9 in genome editing: Its function and medical applications. <i>Journal of Cellular Physiology</i> , 2019, 234, 5751-5761.	2.0	29
1513	Organ Generation from Knockedout Rat Blastocysts Complemented with Pluripotent Stem Cells. <i>Methods in Molecular Biology</i> , 2019, 1874, 313-326.	0.4	1
1514	Gesicle-Mediated Delivery of CRISPR/Cas9 Ribonucleoprotein Complex for Inactivating the HIV Provirus. <i>Molecular Therapy</i> , 2019, 27, 151-163.	3.7	94
1515	CRISPR-PLANT v2: an online resource for highly specific guide RNA spacers based on improved off-target analysis. <i>Plant Biotechnology Journal</i> , 2019, 17, 5-8.	4.1	60
1516	Disruption of sex-specific doublesex exons results in male- and female-specific defects in the black cutworm, <i>Agrotis ipsilon</i> . <i>Pest Management Science</i> , 2019, 75, 1697-1706.	1.7	26
1517	Current strategies for Site-Directed RNA Editing using ADARs. <i>Methods</i> , 2019, 156, 16-24.	1.9	49

#	ARTICLE	IF	CITATIONS
1518	Therapeutic strategies for sickle cell disease: towards a multi-agent approach. <i>Nature Reviews Drug Discovery</i> , 2019, 18, 139-158.	21.5	116
1519	Concise Review: The Current State of Human In Vitro Cardiac Disease Modeling: A Focus on Gene Editing and Tissue Engineering. <i>Stem Cells Translational Medicine</i> , 2019, 8, 66-74.	1.6	27
1520	Optogenetic Medicine: Synthetic Therapeutic Solutions Precision-Guided by Light. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2019, 9, a034371.	2.9	29
1521	Whole genome sequencing reveals rare off-target mutations and considerable inherent genetic or/and somaclonal variations in CRISPR/Cas9-edited cotton plants. <i>Plant Biotechnology Journal</i> , 2019, 17, 858-868.	4.1	159
1522	Yeast genetic interaction screens in the age of CRISPR/Cas. <i>Current Genetics</i> , 2019, 65, 307-327.	0.8	29
1523	Clustered regularly interspaced short palindromic repeats (CRISPR)/CRISPR-associated 9-mediated mutagenesis of the <i>multiple edematous wings</i> gene induces muscle weakness and flightlessness in <i>Bactrocera dorsalis</i> (Diptera: Tephritidae). <i>Insect Molecular Biology</i> , 2019, 28, 222-234.	1.0	12
1524	Gene-edited CRISPy Critters for alcohol research. <i>Alcohol</i> , 2019, 74, 11-19.	0.8	7
1525	New considerations for hiPSC-based models of neuropsychiatric disorders. <i>Molecular Psychiatry</i> , 2019, 24, 49-66.	4.1	64
1526	Nuevos modelos transgÃ©nicos para el estudio de la enfermedad de Parkinson basados en sistemas de ediciÃ³n con nucleasas. <i>NeurologÃa</i> , 2020, 35, 486-499.	0.3	2
1528	CRISPR/Cas9 gene-editing strategies in cardiovascular cells. <i>Cardiovascular Research</i> , 2020, 116, 894-907.	1.8	40
1529	Doxycycline-Dependent Self-Inactivation of CRISPR-Cas9 to Temporally Regulate On- and Off-Target Editing. <i>Molecular Therapy</i> , 2020, 28, 29-41.	3.7	21
1530	Next-Generation Genotoxicology: Using Modern Sequencing Technologies to Assess Somatic Mutagenesis and Cancer Risk. <i>Environmental and Molecular Mutagenesis</i> , 2020, 61, 135-151.	0.9	51
1531	Genome editing in animals: an overview. , 2020, , 75-104.		2
1532	Knockout of two <i>BnaMAX1</i> homologs by CRISPR/Cas9-targeted mutagenesis improves plant architecture and increases yield in rapeseed ( <i>Brassica napus</i> L.). <i>Plant Biotechnology Journal</i> , 2020, 18, 644-654.	4.1	117
1533	Applying switchable Cas9 variants to in vivo gene editing for therapeutic applications. <i>Cell Biology and Toxicology</i> , 2020, 36, 17-29.	2.4	10
1534	Transgenic Mouse. <i>Methods in Molecular Biology</i> , 2020, , .	0.4	2
1535	Retinal stem cell transplantation: Balancing safety and potential. <i>Progress in Retinal and Eye Research</i> , 2020, 75, 100779.	7.3	137
1536	New transgenic models of Parkinson's disease using genome editing technology. <i>NeurologÃa (English)</i> Tj ETQq1 1 0.784314 1gBT /Over	0.2	0

#	ARTICLE	IF	CITATIONS
1537	Computational Analysis Concerning the Impact of DNA Accessibility on CRISPR-Cas9 Cleavage Efficiency. <i>Molecular Therapy</i> , 2020, 28, 19-28.	3.7	26
1538	A glance at genome editing with CRISPR-Cas9 technology. <i>Current Genetics</i> , 2020, 66, 447-462.	0.8	57
1539	CRISPR-associated nucleases: the Dawn of a new age of efficient crop improvement. <i>Transgenic Research</i> , 2020, 29, 1-35.	1.3	31
1540	RNA Nanotechnology-Mediated Cancer Immunotherapy. <i>Theranostics</i> , 2020, 10, 281-299.	4.6	100
1541	Characterization and mutagenesis of Chinese hamster ovary cells endogenous retroviruses to inactivate viral particle release. <i>Biotechnology and Bioengineering</i> , 2020, 117, 466-485.	1.7	8
1542	SNP-CRISPR: A Web Tool for SNP-Specific Genome Editing. <i>G3: Genes, Genomes, Genetics</i> , 2020, 10, 489-494.	0.8	35
1543	Context-Dependent Strategies for Enhanced Genome Editing of Genodermatoses. <i>Cells</i> , 2020, 9, 112.	1.8	29
1544	A simple and efficient workflow for generation of knock-in mutations in Jurkat T cells using CRISPR/Cas9. <i>Scandinavian Journal of Immunology</i> , 2020, 91, e12862.	1.3	9
1545	Applications of genome editing technology in the targeted therapy of human diseases: mechanisms, advances and prospects. <i>Signal Transduction and Targeted Therapy</i> , 2020, 5, 1.	7.1	1,354
1546	CRISPR/Cas9: targeted genome editing for the treatment of hereditary hearing loss. <i>Journal of Applied Genetics</i> , 2020, 61, 51-65.	1.0	21
1547	Ultrasound-activated particles as CRISPR/Cas9 delivery system for androgenic alopecia therapy. <i>Biomaterials</i> , 2020, 232, 119736.	5.7	68
1548	Divalent cations promote TALE DNA-binding specificity. <i>Nucleic Acids Research</i> , 2020, 48, 1406-1422.	6.5	6
1549	Toward Combined Cell and Gene Therapy for Genodermatoses. <i>Cold Spring Harbor Perspectives in Biology</i> , 2020, 12, a035667.	2.3	23
1550	Off-the-shelf allogeneic CAR T cells: development and challenges. <i>Nature Reviews Drug Discovery</i> , 2020, 19, 185-199.	21.5	632
1551	Genome Editing in Patient iPSCs Corrects the Most Prevalent USH2A Mutations and Reveals Intriguing Mutant mRNA Expression Profiles. <i>Molecular Therapy - Methods and Clinical Development</i> , 2020, 17, 156-173.	1.8	56
1552	Computational approaches for effective CRISPR guide RNA design and evaluation. <i>Computational and Structural Biotechnology Journal</i> , 2020, 18, 35-44.	1.9	119
1553	Increasing the targeting scope and efficiency of base editing with ProxyBE strategy. <i>FEBS Letters</i> , 2020, 594, 1319-1328.	1.3	3
1554	Stem cell-derived kidney organoids: engineering the vasculature. <i>Cellular and Molecular Life Sciences</i> , 2020, 77, 2257-2273.	2.4	44

#	ARTICLE	IF	CITATIONS
1555	Recent advances in mammalian reproductive biology. <i>Science China Life Sciences</i> , 2020, 63, 18-58.	2.3	23
1556	Expanding the editable genome and CRISPR-Cas9 versatility using DNA cutting-free gene targeting based on in trans paired nicking. <i>Nucleic Acids Research</i> , 2020, 48, 974-995.	6.5	25
1557	A heterodimer of evolved designer-recombinases precisely excises a human genomic DNA locus. <i>Nucleic Acids Research</i> , 2020, 48, 472-485.	6.5	20
1558	Advances in therapeutic application of CRISPR-Cas9. <i>Briefings in Functional Genomics</i> , 2020, 19, 164-174.	1.3	9
1559	CRISPR System: A High-throughput Toolbox for Research and Treatment of Parkinson's Disease. <i>Cellular and Molecular Neurobiology</i> , 2020, 40, 477-493.	1.7	38
1560	CRISPR Diagnosis and Therapeutics with Single Base Pair Precision. <i>Trends in Molecular Medicine</i> , 2020, 26, 337-350.	3.5	30
1561	Beyond Mendelian Genetics: Anticipatory Biomedical Ethics and Policy Implications for the Use of CRISPR Together with Gene Drive in Humans. <i>Journal of Bioethical Inquiry</i> , 2020, 17, 133-144.	0.9	12
1562	Conditional control of RNA-guided nucleic acid cleavage and gene editing. <i>Nature Communications</i> , 2020, 11, 91.	5.8	54
1563	CRISPRoff enables spatio-temporal control of CRISPR editing. <i>Nature Communications</i> , 2020, 11, 5041.	5.8	33
1565	Delivery Approaches for Therapeutic Genome Editing and Challenges. <i>Genes</i> , 2020, 11, 1113.	1.0	37
1566	New prospects on the horizon: Genome editing to engineer plants for desirable traits. <i>Current Plant Biology</i> , 2020, 24, 100171.	2.3	26
1567	Key considerations in designing CRISPR/Cas9-carrying nanoparticles for therapeutic genome editing. <i>Nanoscale</i> , 2020, 12, 21001-21014.	2.8	20
1568	Interrupting sequence variants and age of onset in Huntington's disease: clinical implications and emerging therapies. <i>Lancet Neurology</i> , The, 2020, 19, 930-939.	4.9	43
1569	Valproic Acid Thermally Destabilizes and Inhibits SpyCas9 Activity. <i>Molecular Therapy</i> , 2020, 28, 2635-2641.	3.7	6
1570	One-step genome editing of porcine zygotes through the electroporation of a CRISPR/Cas9 system with two guide RNAs. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2020, 56, 614-621.	0.7	10
1571	Use of CRISPR-Cas9 To Target Homologous Recombination Limits Transformation-Induced Genomic Changes in <i>Candida albicans</i> . <i>MSphere</i> , 2020, 5, .	1.3	10
1572	Anticipating and Identifying Collateral Damage in Genome Editing. <i>Trends in Genetics</i> , 2020, 36, 905-914.	2.9	28
1573	Type II anti-CRISPR proteins as a new tool for synthetic biology. <i>RNA Biology</i> , 2021, 18, 1085-1098.	1.5	7

#	ARTICLE	IF	CITATIONS
1574	Applying gene editing technology to elucidate the functional consequence of genetic and epigenetic variation in Alzheimer's disease. <i>Brain Pathology</i> , 2020, 30, 992-1004.	2.1	8
1575	Variability in Genome Editing Outcomes: Challenges for Research Reproducibility and Clinical Safety. <i>Molecular Therapy</i> , 2020, 28, 1422-1431.	3.7	34
1576	Advances in CRISPR technologies enable novel in vitro tools for ADME studies. , 2020, , 595-607.		0
1577	Engineered CRISPR/Cas9 enzymes improve discrimination by slowing DNA cleavage to allow release of off-target DNA. <i>Nature Communications</i> , 2020, 11, 3576.	5.8	55
1578	Prediction-based highly sensitive CRISPR off-target validation using target-specific DNA enrichment. <i>Nature Communications</i> , 2020, 11, 3596.	5.8	41
1579	Applications of CRISPR for musculoskeletal research. <i>Bone and Joint Research</i> , 2020, 9, 351-359.	1.3	6
1580	CRISPR-Cas immune systems and genome engineering. , 2020, , 157-177.		0
1581	Breaking the impasse: Towards a forward-looking governance framework for gene editing with plants. <i>Plants People Planet</i> , 2020, 2, 353-365.	1.6	40
1582	CRISPR-Cas9 genome editing using targeted lipid nanoparticles for cancer therapy. <i>Science Advances</i> , 2020, 6, .	4.7	270
1583	Broadening the GMO risk assessment in the EU for genome editing technologies in agriculture. <i>Environmental Sciences Europe</i> , 2020, 32, .	2.6	43
1584	Chemogenetic System Demonstrates That Cas9 Longevity Impacts Genome Editing Outcomes. <i>ACS Central Science</i> , 2020, 6, 2228-2237.	5.3	14
1585	Is microfluidics the "assembly line" for CRISPR-Cas9 gene-editing?. <i>Biomicrofluidics</i> , 2020, 14, 061301.	1.2	4
1586	CRISPR FokI Dead Cas9 System: Principles and Applications in Genome Engineering. <i>Cells</i> , 2020, 9, 2518.	1.8	21
1587	SeqCor: correct the effect of guide RNA sequences in clustered regularly interspaced short palindromic repeats/Cas9 screening by machine learning algorithm. <i>Journal of Genetics and Genomics</i> , 2020, 47, 672-680.	1.7	6
1588	MiCas9 increases large size gene knock-in rates and reduces undesirable on-target and off-target indel edits. <i>Nature Communications</i> , 2020, 11, 6082.	5.8	25
1589	Enhancing Matured Stem-Cardiac Cell Generation and Transplantation: A Novel Strategy for Heart Failure Therapy. <i>Journal of Cardiovascular Translational Research</i> , 2021, 14, 556-572.	1.1	8
1590	A Human Induced Pluripotent Stem Cell-Derived Isogenic Model of Huntington's Disease Based on Neuronal Cells Has Several Relevant Phenotypic Abnormalities. <i>Journal of Personalized Medicine</i> , 2020, 10, 215.	1.1	14
1591	Amplification-free long-read sequencing reveals unforeseen CRISPR-Cas9 off-target activity. <i>Genome Biology</i> , 2020, 21, 290.	3.8	35

#	ARTICLE	IF	CITATIONS
1592	HK022 bacteriophage Integrase mediated RMCE as a potential tool for human gene therapy. <i>Nucleic Acids Research</i> , 2020, 48, 12804-12816.	6.5	6
1593	Catalytic Mechanism of Non-Target DNA Cleavage in CRISPR-Cas9 Revealed by <i>Ab Initio</i> Molecular Dynamics. <i>ACS Catalysis</i> , 2020, 10, 13596-13605.	5.5	63
1594	Genetic Engineering of Zebrafish in Cancer Research. <i>Cancers</i> , 2020, 12, 2168.	1.7	30
1595	Targeting the photoreceptor cilium for the treatment of retinal diseases. <i>Acta Pharmacologica Sinica</i> , 2020, 41, 1410-1415.	2.8	13
1596	CRISPR/Cas systems to overcome challenges in developing the next generation of T cells for cancer therapy. <i>Advanced Drug Delivery Reviews</i> , 2020, 158, 17-35.	6.6	14
1597	Generation of Gene-Knockout Mongolian Gerbils via CRISPR/Cas9 System. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 780.	2.0	8
1598	ABHD11 Is Critical for Embryonic Stem Cell Expansion, Differentiation and Lipid Metabolic Homeostasis. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 570.	1.8	6
1599	Optical Control of a CRISPR/Cas9 System for Gene Editing by Using Photolabile crRNA. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20895-20899.	7.2	31
1600	Large-scale GMP-compliant CRISPR-Cas9-mediated deletion of the glucocorticoid receptor in multivirus-specific T cells. <i>Blood Advances</i> , 2020, 4, 3357-3367.	2.5	27
1601	In vitro CRISPR/Cas9 system for genome editing of <i>Aspergillus niger</i> based on removable bidirectional selection marker <i>AmdS</i> . <i>Biotechnology and Applied Biochemistry</i> , 2021, 68, 964-970.	1.4	6
1602	Optical Control of a CRISPR/Cas9 System for Gene Editing by Using Photolabile crRNA. <i>Angewandte Chemie</i> , 2020, 132, 21081-21085.	1.6	25
1603	An effective vaginal gel to deliver CRISPR/Cas9 system encapsulated in poly ( $\beta$ -amino ester) nanoparticles for vaginal gene therapy. <i>EBioMedicine</i> , 2020, 58, 102897.	2.7	15
1604	Large-Fragment Deletions Induced by Cas9 Cleavage while Not in the BEs System. <i>Molecular Therapy - Nucleic Acids</i> , 2020, 21, 523-526.	2.3	48
1605	Engineering designer beta cells with a CRISPR-Cas9 conjugation platform. <i>Nature Communications</i> , 2020, 11, 4043.	5.8	31
1606	Designing Safer CRISPR/Cas9 Therapeutics for HIV: Defining Factors That Regulate and Technologies Used to Detect Off-Target Editing. <i>Frontiers in Microbiology</i> , 2020, 11, 1872.	1.5	11
1607	One-Day TALEN Assembly Protocol and a Dual-Tagging System for Genome Editing. <i>ACS Omega</i> , 2020, 5, 19702-19714.	1.6	8
1608	CRISPR GUARD protects off-target sites from Cas9 nuclease activity using short guide RNAs. <i>Nature Communications</i> , 2020, 11, 4132.	5.8	51
1609	Which Factors Affect the Occurrence of Off-Target Effects Caused by the Use of CRISPR/Cas: A Systematic Review in Plants. <i>Frontiers in Plant Science</i> , 2020, 11, 574959.	1.7	76



#	ARTICLE	IF	CITATIONS
1610	Regulation of IL12B Expression in Human Macrophages by TALEN-mediated Epigenome Editing. <i>Current Medical Science</i> , 2020, 40, 900-909.	0.7	3
1611	Genome editing approaches to augment livestock breeding programs. <i>Journal of Experimental Biology</i> , 2020, 223, .	0.8	44
1612	CRISPR-Cas Activators for Engineering Gene Expression in Higher Eukaryotes. <i>CRISPR Journal</i> , 2020, 3, 350-364.	1.4	32
1613	Revisiting CRISPR/Cas-mediated crop improvement: Special focus on nutrition. <i>Journal of Biosciences</i> , 2020, 45, 1.	0.5	18
1614	In silico Method in CRISPR/Cas System: An Expedite and Powerful Booster. <i>Frontiers in Oncology</i> , 2020, 10, 584404.	1.3	7
1615	A non-viral genome editing platform for site-specific insertion of large transgenes. <i>Stem Cell Research and Therapy</i> , 2020, 11, 380.	2.4	9
1616	Diphtheria toxin-mediated transposon-driven poly (A) trapping efficiently disrupts transcriptionally silent genes in embryonic stem cells. <i>Genesis</i> , 2020, 58, e23386.	0.8	0
1617	CRISPR-CBEI: a Designing and Analyzing Tool Kit for Cytosine Base Editor-Mediated Gene Inactivation. <i>MSystems</i> , 2020, 5, .	1.7	20
1618	Non-viral Gene Disruption by CRISPR/Cas9 Delivery Using Cell-permeable and Protein-stabilizing 30Kc19 Protein. <i>Biotechnology and Bioprocess Engineering</i> , 2020, 25, 724-733.	1.4	4
1619	Use of Customizable Nucleases for Gene Editing and Other Novel Applications. <i>Genes</i> , 2020, 11, 976.	1.0	9
1620	Evaluating the probability of CRISPR-based gene drive contaminating another species. <i>Evolutionary Applications</i> , 2020, 13, 1888-1905.	1.5	17
1621	Design and Construction of Portable CRISPR-Cpf1-Mediated Genome Editing in <i>Bacillus subtilis</i> 168 Oriented Toward Multiple Utilities. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 524676.	2.0	15
1622	Catalytic-state structure and engineering of <i>Streptococcus thermophilus</i> Cas9. <i>Nature Catalysis</i> , 2020, 3, 813-823.	16.1	23
1623	TCR Redirected T Cells for Cancer Treatment: Achievements, Hurdles, and Goals. <i>Frontiers in Immunology</i> , 2020, 11, 1689.	2.2	63
1624	CRISPR/Cas9 high-throughput screening in cancer research. <i>E3S Web of Conferences</i> , 2020, 185, 03032.	0.2	0
1625	Treating Cystic Fibrosis with mRNA and CRISPR. <i>Human Gene Therapy</i> , 2020, 31, 940-955.	1.4	35
1626	CRISPR and transposon in vivo screens for cancer drivers and therapeutic targets. <i>Genome Biology</i> , 2020, 21, 204.	3.8	14
1627	Efficient generation of GGTA1-deficient pigs by electroporation of the CRISPR/Cas9 system into in vitro-fertilized zygotes. <i>BMC Biotechnology</i> , 2020, 20, 40.	1.7	29

#	ARTICLE	IF	CITATIONS
1628	Genome-Wide Analysis of Off-Target CRISPR/Cas9 Activity in Single-Cell-Derived Human Hematopoietic Stem and Progenitor Cell Clones. <i>Genes</i> , 2020, 11, 1501.	1.0	14
1629	Gene Editing and Genotoxicity: Targeting the Off-Targets. <i>Frontiers in Genome Editing</i> , 2020, 2, 613252.	2.7	31
1630	Nucleolus localization of SpyCas9 affects its stability and interferes with host protein translation in mammalian cells. <i>Genes and Diseases</i> , 2022, 9, 731-740.	1.5	9
1631	Simultaneous CRISPR/Cas9 Editing of Three PPO Genes Reduces Fruit Flesh Browning in <i>Solanum melongena</i> L. <i>Frontiers in Plant Science</i> , 2020, 11, 607161.	1.7	64
1632	Advances in engineering CRISPR-Cas9 as a molecular Swiss Army knife. <i>Synthetic Biology</i> , 2020, 5, ysaa021.	1.2	9
1633	Data on the generation of two Nr2e3 mouse models by CRISPR / Cas9D10A nickase. <i>Data in Brief</i> , 2020, 33, 106447.	0.5	2
1634	Optical Manipulation of CRISPR/Cas9 Functions: From Ultraviolet to Near-Infrared Light. , 2020, 2, 644-653.		22
1635	The CRISPR/Cas9 induces large genomic fragment deletions of MSTN and phenotypic changes in sheep. <i>Journal of Integrative Agriculture</i> , 2020, 19, 1065-1073.	1.7	12
1636	Mutation-Independent Allele-Specific Editing by CRISPR-Cas9, a Novel Approach to Treat Autosomal Dominant Disease. <i>Molecular Therapy</i> , 2020, 28, 1846-1857.	3.7	13
1637	Live-cell screening platform using human-induced pluripotent stem cells expressing fluorescence-tagged cytochrome P450 1A1. <i>FASEB Journal</i> , 2020, 34, 9141-9155.	0.2	4
1638	Protein Engineering of DNA-Dependent Enzymes. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1241, 19-33.	0.8	1
1639	Genome editing in the nematode <i>Caenorhabditis briggsae</i> using the CRISPR/Cas9 system. <i>Biology Methods and Protocols</i> , 2020, 5, bpa003.	1.0	8
1640	Commentary: Divine decree or a novel panacea in Clustered Regularly Interspaced Short Palindromic Repeats Associated 9-steroid steered cellular reprogramming in the fate of failing heart. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2022, 163, 1491-1493.	0.4	1
1641	Increasing CRISPR Efficiency and Measuring Its Specificity in HSPCs Using a Clinically Relevant System. <i>Molecular Therapy - Methods and Clinical Development</i> , 2020, 17, 1097-1107.	1.8	46
1642	POLE Mutation Spectra Are Shaped by the Mutant Allele Identity, Its Abundance, and Mismatch Repair Status. <i>Molecular Cell</i> , 2020, 78, 1166-1177.e6.	4.5	39
1643	CRISPRi-mediated functional analysis of lung disease-associated loci at non-coding regions. <i>NAR Genomics and Bioinformatics</i> , 2020, 2, lqaa036.	1.5	7
1644	Efficient genome editing by CRISPR-Mb3Cas12a in mice. <i>Journal of Cell Science</i> , 2020, 133, .	1.2	11
1645	CRISPR-Cas9 gene editing causes alternative splicing of the targeting mRNA. <i>Biochemical and Biophysical Research Communications</i> , 2020, 528, 54-61.	1.0	9

#	ARTICLE	IF	CITATIONS
1646	Improving Precise CRISPR Genome Editing by Small Molecules: Is there a Magic Potion?. <i>Cells</i> , 2020, 9, 1318.	1.8	41
1647	CRISPR-Cas12a delivery by DNA-mediated bioresponsive editing for cholesterol regulation. <i>Science Advances</i> , 2020, 6, eaba2983.	4.7	77
1648	Plant Genome Editing and the Relevance of Off-Target Changes. <i>Plant Physiology</i> , 2020, 183, 1453-1471.	2.3	68
1649	Tissue- and development-stage-specific mRNA and heterogeneous CNV signatures of human ribosomal proteins in normal and cancer samples. <i>Nucleic Acids Research</i> , 2020, 48, 7079-7098.	6.5	12
1650	Development and Application of CRISPR/Cas in Microbial Biotechnology. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 711.	2.0	37
1651	Retinal Dystrophies and the Road to Treatment: Clinical Requirements and Considerations. <i>Asia-Pacific Journal of Ophthalmology</i> , 2020, 9, 159-179.	1.3	20
1652	CHANGE-seq reveals genetic and epigenetic effects on CRISPR-Cas9 genome-wide activity. <i>Nature Biotechnology</i> , 2020, 38, 1317-1327.	9.4	149
1653	Genome editing with CRISPR-Cas nucleases, base editors, transposases and prime editors. <i>Nature Biotechnology</i> , 2020, 38, 824-844.	9.4	1,277
1654	CRISPR/CAS9-Mediated Antiviral Activity: A Tool to Combat Viral Infection. <i>Critical Reviews in Eukaryotic Gene Expression</i> , 2020, 30, 45-56.	0.4	2
1655	A Review on the Molecular Mechanism, Superiorities, Applications, Limitations and Experimental Workflow of CRISPR/Cas-9 System, and the Future of Gene Engineering. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 729, 012044.	0.3	0
1656	Discovering and validating cancer genetic dependencies: approaches and pitfalls. <i>Nature Reviews Genetics</i> , 2020, 21, 671-682.	7.7	41
1657	Effects of electroporation treatment using different concentrations of Cas9 protein with gRNA targeting <i>Myostatin</i> ( <i>MSTN</i> ) genes on the development and gene editing of porcine zygotes. <i>Animal Science Journal</i> , 2020, 91, e13386.	0.6	20
1658	Direct-seq: A programmed gRNA scaffold for streamlined scRNA-seq in CRISPR screen. <i>Genome Biology</i> , 2020, 21, 136.	3.8	10
1659	CRISPRNet: A Recurrent Convolutional Network Quantifies CRISPR Off-Target Activities with Mismatches and Indels. <i>Advanced Science</i> , 2020, 7, 1903562.	5.6	43
1660	CRISPR/Cas system of prokaryotic extremophiles and its applications. , 2020, , 155-168.		1
1661	Lysosomal storage diseases: current therapies and future alternatives. <i>Journal of Molecular Medicine</i> , 2020, 98, 931-946.	1.7	34
1662	STING Gain-of-Function Disrupts Lymph Node Organogenesis and Innate Lymphoid Cell Development in Mice. <i>Cell Reports</i> , 2020, 31, 107771.	2.9	18
1663	Evaluation of the CRISPR/Cas9 system for the development of resistance against Cotton leaf curl virus in model plants. <i>Plant Protection Science</i> , 2020, 56, 154-162.	0.7	17

#	ARTICLE	IF	CITATIONS
1664	Spontaneous Embedding of DNA Mismatches Within the RNA:DNA Hybrid of CRISPR-Cas9. <i>Frontiers in Molecular Biosciences</i> , 2020, 7, 39.	1.6	32
1665	Genome engineering in insects: focus on the CRISPR/Cas9 system. , 2020, , 219-249.		11
1666	Mutation in myostatin 3'UTR promotes C2C12 myoblast proliferation and differentiation by blocking the translation of MSTN. <i>International Journal of Biological Macromolecules</i> , 2020, 154, 634-643.	3.6	14
1667	Extracellular nanovesicles for packaging of CRISPR-Cas9 protein and sgRNA to induce therapeutic exon skipping. <i>Nature Communications</i> , 2020, 11, 1334.	5.8	197
1668	Mitigating off-target effects in CRISPR/Cas9-mediated in vivo gene editing. <i>Journal of Molecular Medicine</i> , 2020, 98, 615-632.	1.7	66
1669	A Cas12a ortholog with stringent PAM recognition followed by low off-target editing rates for genome editing. <i>Genome Biology</i> , 2020, 21, 78.	3.8	51
1670	Gene editing particle system as a therapeutic approach for drug-resistant colorectal cancer. <i>Nano Research</i> , 2020, 13, 1576-1585.	5.8	9
1671	Next-generation stem cells "ushering in a new era of cell-based therapies. <i>Nature Reviews Drug Discovery</i> , 2020, 19, 463-479.	21.5	161
1672	Efficient SNP editing in haploid human pluripotent stem cells. <i>Journal of Assisted Reproduction and Genetics</i> , 2020, 37, 735-745.	1.2	4
1673	Emergent challenges for CRISPR: biosafety, biosecurity, patenting, and regulatory issues. , 2020, , 281-307.		1
1674	Gene editing and central nervous system regeneration. , 2020, , 399-433.		0
1675	Evaluation of the CRISPR/Cas9 Genetic Constructs in Efficient Disruption of Porcine Genes for Xenotransplantation Purposes Along with an Assessment of the Off-Target Mutation Formation. <i>Genes</i> , 2020, 11, 713.	1.0	7
1676	Gene Therapy Intervention in Neovascular Eye Disease: A Recent Update. <i>Molecular Therapy</i> , 2020, 28, 2120-2138.	3.7	38
1677	Highly efficient "hit-and-run"™ genome editing with unconcentrated lentivectors carrying Vpr.Prot.Cas9 protein produced from RRE-containing transcripts. <i>Nucleic Acids Research</i> , 2020, 48, 8178-8187.	6.5	26
1678	Translating genomic insights into cardiovascular medicine: Opportunities and challenges of CRISPR-Cas9. <i>Trends in Cardiovascular Medicine</i> , 2021, 31, 341-348.	2.3	5
1679	A Tale of Two Moieties: Rapidly Evolving CRISPR/Cas-Based Genome Editing. <i>Trends in Biochemical Sciences</i> , 2020, 45, 874-888.	3.7	23
1680	Latest Developed Strategies to Minimize the Off-Target Effects in CRISPR-Cas-Mediated Genome Editing. <i>Cells</i> , 2020, 9, 1608.	1.8	257
1681	A Review of Gene, Drug and Cell-Based Therapies for Usher Syndrome. <i>Frontiers in Cellular Neuroscience</i> , 2020, 14, 183.	1.8	18

#	ARTICLE	IF	CITATIONS
1682	Cas9 Cuts and Consequences; Detecting, Predicting, and Mitigating CRISPR/Cas9 On- and Off-Target Damage. <i>BioEssays</i> , 2020, 42, e2000047.	1.2	9
1683	How Crisp is CRISPR? CRISPR-Cas-mediated crop improvement with special focus on nutritional traits. , 2020, , 159-197.		5
1684	Development of a Self-Restricting CRISPR-Cas9 System to Reduce Off-Target Effects. <i>Molecular Therapy - Methods and Clinical Development</i> , 2020, 18, 390-401.	1.8	13
1685	Accumulation of the RNA polymerase subunit RpoB depends on RNA editing by OsPPR16 and affects chloroplast development during early leaf development in rice. <i>New Phytologist</i> , 2020, 228, 1401-1416.	3.5	25
1686	Mitochondria transfer enhances proliferation, migration, and osteogenic differentiation of bone marrow mesenchymal stem cell and promotes bone defect healing. <i>Stem Cell Research and Therapy</i> , 2020, 11, 245.	2.4	55
1687	Engineering a far-red light-activated split-Cas9 system for remote-controlled genome editing of internal organs and tumors. <i>Science Advances</i> , 2020, 6, eabb1777.	4.7	73
1688	Progress and challenges towards CRISPR/Cas clinical translation. <i>Advanced Drug Delivery Reviews</i> , 2020, 154-155, 176-186.	6.6	33
1689	Reprint of: Deciphering and simulating models of radiation genotoxicity with CRISPR/Cas9 systems. <i>Mutation Research - Reviews in Mutation Research</i> , 2020, 785, 108318.	2.4	0
1690	Efficient CRISPR/Cas9-Mediated Gene Editing in an Interspecific Hybrid Poplar With a Highly Heterozygous Genome. <i>Frontiers in Plant Science</i> , 2020, 11, 996.	1.7	27
1691	CRISPR/Cas9-mediated genome editing: From basic research to translational medicine. <i>Journal of Cellular and Molecular Medicine</i> , 2020, 24, 3766-3778.	1.6	61
1692	Improved LbCas12a variants with altered PAM specificities further broaden the genome targeting range of Cas12a nucleases. <i>Nucleic Acids Research</i> , 2020, 48, 3722-3733.	6.5	83
1693	Generation and validation of a PITX2-EGFP reporter line of human induced pluripotent stem cells enables isolation of periocular mesenchymal cells. <i>Journal of Biological Chemistry</i> , 2020, 295, 3456-3465.	1.6	4
1694	Specificity profiling of CRISPR system reveals greatly enhanced off-target gene editing. <i>Scientific Reports</i> , 2020, 10, 2269.	1.6	24
1695	CRISPR-Based Adenine Editors Correct Nonsense Mutations in a Cystic Fibrosis Organoid Biobank. <i>Cell Stem Cell</i> , 2020, 26, 503-510.e7.	5.2	136
1696	Protein-Mutation-Induced Conformational Changes of the DNA and Nuclease Domain in CRISPR/Cas9 Systems by Molecular Dynamics Simulations. <i>Journal of Physical Chemistry B</i> , 2020, 124, 2168-2179.	1.2	10
1697	The rapidly advancing Class 2 CRISPR-Cas technologies: A customizable toolbox for molecular manipulations. <i>Journal of Cellular and Molecular Medicine</i> , 2020, 24, 3256-3270.	1.6	39
1698	Deep learning improves the ability of sgRNA off-target propensity prediction. <i>BMC Bioinformatics</i> , 2020, 21, 51.	1.2	41
1699	A Genome-Editing Nanomachine Constructed with a Clustered Regularly Interspaced Short Palindromic Repeats System and Activated by Near-Infrared Illumination. <i>ACS Nano</i> , 2020, 14, 2817-2826.	7.3	23

#	ARTICLE	IF	CITATIONS
1700	CRISPR/Cas9 for cancer treatment: technology, clinical applications and challenges. Briefings in Functional Genomics, 2020, 19, 209-214.	1.3	16
1701	An improved strategy for CRISPR/Cas9 gene knockout and subsequent wildtype and mutant gene rescue. PLoS ONE, 2020, 15, e0228910.	1.1	19
1702	High-throughput analysis of the activities of xCas9, SpCas9-NG and SpCas9 at matched and mismatched target sequences in human cells. Nature Biomedical Engineering, 2020, 4, 111-124.	11.6	98
1704	Toward an Optimized Process for Clinical Manufacturing of CAR-Treg Cell Therapy. Trends in Biotechnology, 2020, 38, 1099-1112.	4.9	68
1705	Prime Editing: Precision Genome Editing by Reverse Transcription. Molecular Cell, 2020, 77, 210-212.	4.5	21
1706	The best CRISPR/Cas9 versus RNA interference approaches for Arabinogalactan proteinsâ€™ study. Molecular Biology Reports, 2020, 47, 2315-2325.	1.0	11
1707	Tandem Paired Nicking Promotes Precise Genome Editing with Scarce Interference by p53. Cell Reports, 2020, 30, 1195-1207.e7.	2.9	29
1708	CRISPR/Cas9 gene editing in a chicken model: current approaches and applications. Journal of Applied Genetics, 2020, 61, 221-229.	1.0	23
1709	CRISPR-Cpf1 Activation of Endogenous BMP4 Gene for Osteogenic Differentiation of Umbilical-Cord-Derived Mesenchymal Stem Cells. Molecular Therapy - Methods and Clinical Development, 2020, 17, 309-316.	1.8	18
1710	CRISPR/Cas Systems in Genome Editing: Methodologies and Tools for sgRNA Design, Off-Target Evaluation, and Strategies to Mitigate Off-Target Effects. Advanced Science, 2020, 7, 1902312.	5.6	162
1711	Enrichment Reporter System of Genome Editing Positive Cells. Chinese Journal of Analytical Chemistry, 2020, 48, 1-12.	0.9	1
1712	Deciphering and simulating models of radiation genotoxicity with CRISPR/Cas9 systems. Mutation Research - Reviews in Mutation Research, 2020, 783, 108298.	2.4	1
1713	CRISPR-Cas13 Inhibitors Block RNA Editing in Bacteria and Mammalian Cells. Molecular Cell, 2020, 78, 850-861.e5.	4.5	65
1714	Genetic Manipulation of a Lipolytic Yeast Candida aaseri SH14 Using CRISPR-Cas9 System. Microorganisms, 2020, 8, 526.	1.6	9
1715	Significance of Selective Protein Degradation in the Development of Novel Targeted Drugs and Its Implications in Cancer Therapy. Advanced Therapeutics, 2020, 3, 1900210.	1.6	2
1716	Mapping and editing of nucleic acid modifications. Computational and Structural Biotechnology Journal, 2020, 18, 661-667.	1.9	15
1717	Genome editing with the CRISPR-Cas system: an art, ethics and global regulatory perspective. Plant Biotechnology Journal, 2020, 18, 1651-1669.	4.1	97
1718	Adenoviral Vectors Meet Gene Editing: A Rising Partnership for the Genomic Engineering of Human Stem Cells and Their Progeny. Cells, 2020, 9, 953.	1.8	19

#	ARTICLE	IF	CITATIONS
1719	In Vivo CRISPR/Cas9-Mediated Genome Editing Mitigates Photoreceptor Degeneration in a Mouse Model of X-Linked Retinitis Pigmentosa. , 2020, 61, 31.		27
1720	Recent Advance in Genome Editing-Based Gene Modification in Pigs. , 0, , .		1
1721	Gene-edited human stem cellâ€‘derived Î² cells from a patient with monogenic diabetes reverse preexisting diabetes in mice. Science Translational Medicine, 2020, 12, .	5.8	123
1722	The CRISP(Y) Future of Pediatric Soft Tissue Sarcomas. Frontiers in Chemistry, 2020, 8, 178.	1.8	3
1723	Site-specifically deuterated essential lipids as new drugs against neuronal, retinal and vascular degeneration. Drug Discovery Today, 2020, 25, 1469-1476.	3.2	4
1724	Lipid and polymer mediated CRISPR/Cas9 gene editing. Journal of Materials Chemistry B, 2020, 8, 4369-4386.	2.9	16
1725	Knockout of IRF7 Highlights its Modulator Function of Host Response Against Avian Influenza Virus and the Involvement of MAPK and TOR Signaling Pathways in Chicken. Genes, 2020, 11, 385.	1.0	19
1726	CRISPR Interferenceâ€‘Potential Application in Retinal Disease. International Journal of Molecular Sciences, 2020, 21, 2329.	1.8	22
1727	Cas9HF1 enhanced specificity in Ustilago maydis. Fungal Biology, 2020, 124, 228-234.	1.1	19
1728	Targeting cancer epigenetics with CRISPR-dCAS9: Principles and prospects. Methods, 2021, 187, 77-91.	1.9	16
1729	In vitro transcribed mRNA for expression of designer nucleases: Advantages as a novel therapeutic for the management of chronic HBV infection. Advanced Drug Delivery Reviews, 2021, 168, 134-146.	6.6	11
1730	Core Hairpin Structure of SpCas9 sgRNA Functions in a Sequence- and Spatial Conformationâ€‘Dependent Manner. SLAS Technology, 2021, 26, 92-102.	1.0	4
1731	CRISPR Tools for Physiology and Cell State Changes: Potential of Transcriptional Engineering and Epigenome Editing. Physiological Reviews, 2021, 101, 177-211.	13.1	13
1732	A primer to gene therapy: Progress, prospects, and problems. Journal of Inherited Metabolic Disease, 2021, 44, 54-71.	1.7	9
1733	Genome editing: applications for medicinal and aromatic plants. , 2021, , 119-144.		8
1734	Reverse Transcriptase: From Transcriptomics to Genome Editing. Trends in Biotechnology, 2021, 39, 194-210.	4.9	31
1735	Therapeutic genome editing in cardiovascular diseases. Advanced Drug Delivery Reviews, 2021, 168, 147-157.	6.6	23
1736	CRISPR-Cas9-Edited Tacrolimus-Resistant Antiviral T Cells for Advanced Adoptive Immunotherapy in Transplant Recipients. Molecular Therapy, 2021, 29, 32-46.	3.7	27

#	ARTICLE	IF	CITATIONS
1737	CRISPR/Cas9 genome editing in ergot fungus <i>Claviceps purpurea</i> . <i>Journal of Biotechnology</i> , 2021, 325, 341-354.	1.9	14
1738	crisprSQL: a novel database platform for CRISPR/Cas off-target cleavage assays. <i>Nucleic Acids Research</i> , 2021, 49, D855-D861.	6.5	16
1739	Expanding the Efflux In Vitro Assay Toolbox: A CRISPR-Cas9 Edited MDCK Cell Line with Human BCRP and Completely Lacking Canine MDR1. <i>Journal of Pharmaceutical Sciences</i> , 2021, 110, 388-396.	1.6	9
1740	Coassembly of nucleus-targeting gold nanoclusters with CRISPR/Cas9 for simultaneous bioimaging and therapeutic genome editing. <i>Journal of Materials Chemistry B</i> , 2021, 9, 94-100.	2.9	45
1741	Expansion of the CRISPR/Cas Genome-Sculpting Toolbox: Innovations, Applications and Challenges. <i>Molecular Diagnosis and Therapy</i> , 2021, 25, 41-57.	1.6	9
1742	Shedding Light on the Ghost Proteome. <i>Trends in Biochemical Sciences</i> , 2021, 46, 239-250.	3.7	20
1743	CRISPR technology: The engine that drives cancer therapy. <i>Biomedicine and Pharmacotherapy</i> , 2021, 133, 111007.	2.5	30
1744	Recent Advances in the Discovery of Multitargeted Tyrosine Kinase Inhibitors as Anticancer Agents. <i>ChemMedChem</i> , 2021, 16, 600-620.	1.6	21
1745	Tools for experimental and computational analyses of off-target editing by programmable nucleases. <i>Nature Protocols</i> , 2021, 16, 10-26.	5.5	52
1746	Widely used gene editing strategies in cancer treatment a systematic review. <i>Gene Reports</i> , 2021, 22, 100983.	0.4	2
1747	Controlling and enhancing CRISPR systems. <i>Nature Chemical Biology</i> , 2021, 17, 10-19.	3.9	108
1748	Development of aptamer-based inhibitors for CRISPR/Cas system. <i>Nucleic Acids Research</i> , 2021, 49, 1330-1344.	6.5	19
1749	Establishing the allosteric mechanism in CRISPR-Cas9. <i>Wiley Interdisciplinary Reviews: Computational Molecular Science</i> , 2021, 11, e1503.	6.2	35
1750	Recent advances in chemical modifications of guide RNA, mRNA and donor template for CRISPR-mediated genome editing. <i>Advanced Drug Delivery Reviews</i> , 2021, 168, 246-258.	6.6	39
1751	Regulating CRISPR/Cas9 Function through Conditional Guide RNA Control. <i>ChemBioChem</i> , 2021, 22, 63-72.	1.3	18
1752	Massively parallel kinetic profiling of natural and engineered CRISPR nucleases. <i>Nature Biotechnology</i> , 2021, 39, 84-93.	9.4	80
1753	CRISPR Guide RNA Design. <i>Methods in Molecular Biology</i> , 2021, , .	0.4	2
1754	CRISPR/Cas9: A magic bullet to deal with plant viruses. , 2021, , 443-460.		0



#	ARTICLE	IF	CITATIONS
1755	Prediction of CRISPR/Cas9 single guide RNA cleavage efficiency and specificity by attention-based convolutional neural networks. Computational and Structural Biotechnology Journal, 2021, 19, 1445-1457.	1.9	20
1756	History, evolution and classification of CRISPR-Cas associated systems. Progress in Molecular Biology and Translational Science, 2021, 179, 11-76.	0.9	18
1757	Prime Editing Guide RNA Design Automation Using PINE-CONE. ACS Synthetic Biology, 2021, 10, 422-427.	1.9	30
1759	CRISPR/Cas9 in epigenetics studies of health and disease. Progress in Molecular Biology and Translational Science, 2021, 181, 309-343.	0.9	6
1760	CRISPR-Cas systems for genome editing of mammalian cells. Progress in Molecular Biology and Translational Science, 2021, 181, 15-30.	0.9	2
1762	Assessing for off-target mutagenesis. , 2021, , 81-100.		1
1763	SELECTED ASPECTS OF THE CRISPR-CAS BIOLOGY AND APPLICATIONS. Postepy Mikrobiologii, 2021, 60, 3-12.	0.1	0
1764	Standardized Quality Control Workflow to Evaluate the Reproducibility and Differentiation Potential of Human iPSCs into Neurons. SSRN Electronic Journal, 0, , .	0.4	2
1765	CRISPR genome engineering for retinal diseases. Progress in Molecular Biology and Translational Science, 2021, 182, 29-79.	0.9	13
1766	From genome scissors to molecular scalpel: evolution of CRISPR systems. Biotechnology and Genetic Engineering Reviews, 2021, 37, 82-104.	2.4	3
1767	Broadening the reach and investigating the potential of prime editors through fully viral gene-deleted adenoviral vector delivery. Nucleic Acids Research, 2021, 49, 11986-12001.	6.5	19
1769	Utilizing RNA-Based Approaches to Understand Plant-Insect Interactions. Concepts and Strategies in Plant Sciences, 2021, , 393-428.	0.6	4
1770	CRISPR based bacterial genome editing and removal of pathogens. Progress in Molecular Biology and Translational Science, 2021, 179, 77-92.	0.9	1
1771	Analysis of Off-Target Mutations in CRISPR-Edited Rice Plants Using Whole-Genome Sequencing. Methods in Molecular Biology, 2021, 2238, 145-172.	0.4	4
1772	Convergence of human pluripotent stem cell, organoid, and genome editing technologies. Experimental Biology and Medicine, 2021, 246, 861-875.	1.1	5
1773	CRISPR/dCas9 as a Therapeutic Approach for Neurodevelopmental Disorders: Innovations and Limitations Compared to Traditional Strategies. Developmental Neuroscience, 2021, 43, 253-261.	1.0	10
1774	Disease Resistance in Crops Through CRISPR/Cas. , 2021, , 151-175.		1
1775	In vitro and in cellula site-directed RNA editing using the Î»NDD-BoxB system. Methods in Enzymology, 2021, 658, 335-358.	0.4	2

#	ARTICLE	IF	CITATIONS
1776	Rewriting CFTR to cure cystic fibrosis. <i>Progress in Molecular Biology and Translational Science</i> , 2021, 182, 185-224.	0.9	8
1778	Current status of the application of gene editing in pigs. <i>Journal of Reproduction and Development</i> , 2021, 67, 177-187.	0.5	17
1779	Precise and broad scope genome editing based on high-specificity Cas9 nickases. <i>Nucleic Acids Research</i> , 2021, 49, 1173-1198.	6.5	29
1780	Asymmetric Roles of Two Histidine Residues in <i>Streptococcus pyogenes</i> Cas9 Catalytic Domains upon Chemical Rescue. <i>Biochemistry</i> , 2021, 60, 194-200.	1.2	4
1781	CRISPR/Cas9-mediated $\beta$ -globin gene knockout in rabbits recapitulates human $\beta$ -thalassemia. <i>Journal of Biological Chemistry</i> , 2021, 296, 100464.	1.6	7
1782	Genome-wide detection and analysis of CRISPR-Cas off-targets. <i>Progress in Molecular Biology and Translational Science</i> , 2021, 181, 31-43.	0.9	11
1783	Modulating Cas9 activity for precision gene editing. <i>Progress in Molecular Biology and Translational Science</i> , 2021, 181, 89-127.	0.9	2
1785	CRISPR-SE: a brute force search engine for CRISPR design. <i>NAR Genomics and Bioinformatics</i> , 2021, 3, lqab013.	1.5	10
1787	Identifying genome-wide off-target sites of CRISPR RNA-guided nucleases and deaminases with Digenome-seq. <i>Nature Protocols</i> , 2021, 16, 1170-1192.	5.5	16
1788	Genome Editing Technologies for Plant Improvement: Advances, Applications and Challenges. , 2021, , 213-240.		0
1789	Restoration of dystrophin expression and correction of Duchenne muscular dystrophy by genome editing. <i>Expert Opinion on Biological Therapy</i> , 2021, 21, 1049-1061.	1.4	8
1790	Generation of VEGF knock-in Cashmere goat via the CRISPR/Cas9 system. <i>International Journal of Biological Sciences</i> , 2021, 17, 1026-1040.	2.6	13
1791	ADAR-Mediated RNA Editing and Its Therapeutic Potentials. <i>RNA Technologies</i> , 2021, , 471-503.	0.2	3
1792	A Small Key for a Heavy Door: Genetic Therapies for the Treatment of Hemoglobinopathies. <i>Frontiers in Genome Editing</i> , 2020, 2, 617780.	2.7	7
1794	Microbial single-strand annealing proteins enable CRISPR gene-editing tools with improved knock-in efficiencies and reduced off-target effects. <i>Nucleic Acids Research</i> , 2021, 49, e36-e36.	6.5	17
1795	Sequence-independent RNA sensing and DNA targeting by a split domain CRISPR-Cas12a gRNA switch. <i>Nucleic Acids Research</i> , 2021, 49, 2985-2999.	6.5	26
1797	CRISPR Takes the Front Seat in CART-Cell Development. <i>BioDrugs</i> , 2021, 35, 113-124.	2.2	10
1798	Immunogenicity of CAR T cells in cancer therapy. <i>Nature Reviews Clinical Oncology</i> , 2021, 18, 379-393.	12.5	128

#	ARTICLE	IF	CITATIONS
1799	Cannabis sativa: Interdisciplinary Strategies and Avenues for Medical and Commercial Progression Outside of CBD and THC. <i>Biomedicines</i> , 2021, 9, 234.	1.4	16
1800	Advanced single-cell pooled CRISPR screening identifies C19orf53 required for cell proliferation based on mTORC1 regulators. <i>Cell Biology and Toxicology</i> , 2022, 38, 43-68.	2.4	6
1801	CRISPR/Cas9 gene editing for curing sickle cell disease. <i>Transfusion and Apheresis Science</i> , 2021, 60, 103060.	0.5	32
1802	Bank competition and the credit channel of monetary policy: Evidence from an emerging country. <i>International Journal of Advanced and Applied Sciences</i> , 2021, 8, 85-91.	0.2	0
1803	The bridge helix of Cas12a imparts selectivity in cis $\Delta$ DNA cleavage and regulates trans $\Delta$ DNA cleavage. <i>FEBS Letters</i> , 2021, 595, 892-912.	1.3	9
1804	Efficient manipulation of gene dosage in human iPSCs using CRISPR/Cas9 nickases. <i>Communications Biology</i> , 2021, 4, 195.	2.0	6
1805	CRISPR-Cas9: A Preclinical and Clinical Perspective for the Treatment of Human Diseases. <i>Molecular Therapy</i> , 2021, 29, 571-586.	3.7	124
1806	Biallelic variants in COPB1 cause a novel, severe intellectual disability syndrome with cataracts and variable microcephaly. <i>Genome Medicine</i> , 2021, 13, 34.	3.6	18
1807	2LTRZFP Interacts Specifically to HIV-1 DNA without Off-Target Effects as Determined by Biolayer Interferometry. <i>Biosensors</i> , 2021, 11, 76.	2.3	1
1808	Improved Genome Editing through Inhibition of FANCM and Members of the BTR Dissolvase Complex. <i>Molecular Therapy</i> , 2021, 29, 1016-1027.	3.7	7
1809	Mutation of the Cytochrome P450 <i>CYP360A8</i> Gene Increases Sensitivity to Paraquat in <i>Daphnia magna</i> . <i>Environmental Toxicology and Chemistry</i> , 2021, 40, 1279-1288.	2.2	17
1810	Targeting $\epsilon$ -undruggable $\epsilon$ -c-Myc protein by synthetic lethality. <i>Frontiers of Medicine</i> , 2021, 15, 541-550.	1.5	8
1811	Novel CRISPR-Cas Systems: An Updated Review of the Current Achievements, Applications, and Future Research Perspectives. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3327.	1.8	105
1813	Application of CRISPR/Cas System in the Metabolic Engineering of Small Molecules. <i>Molecular Biotechnology</i> , 2021, 63, 459-476.	1.3	6
1814	Efficient genome editing in wheat using Cas9 and Cpf1 (AsCpf1 and LbCpf1) nucleases. <i>Functional and Integrative Genomics</i> , 2021, 21, 355-366.	1.4	19
1815	CRISPR ribonucleoprotein-mediated genetic engineering in plants. <i>Plant Communications</i> , 2021, 2, 100168.	3.6	77
1816	Development and application of a highly efficient CRISPR-Cas9 system for genome engineering in <i>Bacillus megaterium</i> . <i>Journal of Biotechnology</i> , 2021, 329, 170-179.	1.9	16
1817	Sclerostin and Osteocalcin: Candidate Bone-Produced Hormones. <i>Frontiers in Endocrinology</i> , 2021, 12, 584147.	1.5	48

#	ARTICLE	IF	CITATIONS
1818	Single-Base Resolution: Increasing the Specificity of the CRISPR-Cas System in Gene Editing. <i>Molecular Therapy</i> , 2021, 29, 937-948.	3.7	12
1819	Efficacy and long-term safety of CRISPR/Cas9 genome editing in the SOD1-linked mouse models of ALS. <i>Communications Biology</i> , 2021, 4, 396.	2.0	20
1820	The Path to Progress Preclinical Studies of Age-Related Neurodegenerative Diseases: A Perspective on Rodent and hiPSC-Derived Models. <i>Molecular Therapy</i> , 2021, 29, 949-972.	3.7	10
1821	Systematic <i>in vitro</i> specificity profiling reveals nicking defects in natural and engineered CRISPR-Cas9 variants. <i>Nucleic Acids Research</i> , 2021, 49, 4037-4053.	6.5	10
1822	CRISPR/Cas Technology in Pig-to-Human Xenotransplantation Research. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3196.	1.8	23
1823	Editing GWAS: experimental approaches to dissect and exploit disease-associated genetic variation. <i>Genome Medicine</i> , 2021, 13, 41.	3.6	32
1824	Molecular Switch Engineering for Precise Genome Editing. <i>Bioconjugate Chemistry</i> , 2021, 32, 639-648.	1.8	2
1825	Cas9 deactivation with photocleavable guide RNAs. <i>Molecular Cell</i> , 2021, 81, 1553-1565.e8.	4.5	30
1826	Plant genome editing: ever more precise and wide reaching. <i>Plant Journal</i> , 2021, 106, 1208-1218.	2.8	30
1827	Application of CRISPR/Cas9 in Crop Quality Improvement. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4206.	1.8	77
1829	CALITAS: A CRISPR-Cas-aware ALigner for <i>in silico</i> off-Target Search. <i>CRISPR Journal</i> , 2021, 4, 264-274.	1.4	8
1830	Generation of no-yellow pigment <i>Xenopus tropicalis</i> by <i>slc2a7</i> gene knockout. <i>Developmental Dynamics</i> , 2021, 250, 1420-1431.	0.8	7
1831	Unresolved Issues in RNA Therapeutics in Vascular Diseases With a Focus on Aneurysm Disease. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 571076.	1.1	4
1832	Chemical Modification and Transformation Strategies of Guide RNAs in CRISPR-Cas9 Gene Editing Systems. <i>ChemPlusChem</i> , 2021, 86, 587-600.	1.3	5
1834	CRISPR-Cas: a brief overview. <i>PoÄki</i> , 2021, 10, 2-3.	0.1	0
1835	Simultaneous knockout of multiple <i>LHCF</i> genes using single sgRNAs and engineering of a high-fidelity Cas9 for precise genome editing in marine algae. <i>Plant Biotechnology Journal</i> , 2021, 19, 1658-1669.	4.1	19
1836	CRISPR, animals, and FDA oversight: Building a path to success. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	9
1837	Genome-wide specificity of prime editors in plants. <i>Nature Biotechnology</i> , 2021, 39, 1292-1299.	9.4	80

#	ARTICLE	IF	CITATIONS
1839	DNMT3.1 controls trade-offs between growth, reproduction, and life span under starved conditions in <i>Daphnia magna</i> . <i>Scientific Reports</i> , 2021, 11, 7326.	1.6	7
1840	CRISPR/Cas System: A Potential Technology for the Prevention and Control of COVID-19 and Emerging Infectious Diseases. <i>Frontiers in Cellular and Infection Microbiology</i> , 2021, 11, 639108.	1.8	13
1841	Human SND2 mediates ER targeting of GPI-anchored proteins with low hydrophobic GPI attachment signals. <i>FEBS Letters</i> , 2021, 595, 1542-1558.	1.3	13
1842	Molecular Dynamics to Predict Cryo-EM: Capturing Transitions and Short-Lived Conformational States of Biomolecules. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 641208.	1.6	18
1843	Recent Advances in Implantation-Based Genetic Modeling of Biliary Carcinogenesis in Mice. <i>Cancers</i> , 2021, 13, 2292.	1.7	6
1844	A Chemical Toolbox for Labeling and Degrading Engineered Cas Proteins. <i>Jacs Au</i> , 2021, 1, 777-785.	3.6	10
1845	CRISPR-Cas13 System as a Promising and Versatile Tool for Cancer Diagnosis, Therapy, and Research. <i>ACS Synthetic Biology</i> , 2021, 10, 1245-1267.	1.9	38
1846	In vivo adenine base editing of PCSK9 in macaques reduces LDL cholesterol levels. <i>Nature Biotechnology</i> , 2021, 39, 949-957.	9.4	196
1847	What Can Genome Editing Be Used for?. , 2021, , 141-191.		0
1848	Single AAV-mediated CRISPR-Nme2Cas9 efficiently reduces mutant hTTR expression in a transgenic mouse model of transthyretin amyloidosis. <i>Molecular Therapy</i> , 2022, 30, 164-174.	3.7	12
1849	Prediction of sgRNA Off-Target Activity in CRISPR/Cas9 Gene Editing Using Graph Convolution Network. <i>Entropy</i> , 2021, 23, 608.	1.1	8
1851	Whole-genome sequencing reveals rare off-target mutations in CRISPR/Cas9-edited grapevine. <i>Horticulture Research</i> , 2021, 8, 114.	2.9	37
1852	Plant synthetic biology for producing potent phyto-antimicrobials to combat antimicrobial resistance. <i>Biotechnology Advances</i> , 2021, 48, 107729.	6.0	39
1853	Construction and application of a CRISPR/Cas9-assisted genomic editing system for <i>Corynebacterium glutamicum</i> . <i>AMB Express</i> , 2021, 11, 70.	1.4	11
1854	A Review: Computational Approaches to Design sgRNA of CRISPR-Cas9. <i>Current Bioinformatics</i> , 2022, 17, 2-18.	0.7	3
1855	Human iPSCs and Genome Editing Technologies for Precision Cardiovascular Tissue Engineering. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 639699.	1.8	16
1856	Recent advances in CRISPR technologies for genome editing. <i>Archives of Pharmacal Research</i> , 2021, 44, 537-552.	2.7	5
1857	New approaches to moderate CRISPR-Cas9 activity: Addressing issues of cellular uptake and endosomal escape. <i>Molecular Therapy</i> , 2022, 30, 32-46.	3.7	16

#	ARTICLE	IF	CITATIONS
1858	RNA Engineering for Public Health: Innovations in RNA-Based Diagnostics and Therapeutics. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 263-286.	3.3	8
1859	Reprogramming the anti-tumor immune response via CRISPR genetic and epigenetic editing. Molecular Therapy - Methods and Clinical Development, 2021, 21, 592-606.	1.8	11
1860	Engineering Gene Therapy: Advances and Barriers. Advanced Therapeutics, 2021, 4, 2100040.	1.6	23
1861	Controlling CRISPR with small molecule regulation for somatic cell genome editing. Molecular Therapy, 2022, 30, 17-31.	3.7	8
1862	Cas9 protein delivery non-integrating lentiviral vectors for gene correction in sickle cell disease. Molecular Therapy - Methods and Clinical Development, 2021, 21, 121-132.	1.8	25
1863	An Overview of RNA-Based Scaffolds for Osteogenesis. Frontiers in Molecular Biosciences, 2021, 8, 682581.	1.6	16
1864	Exploiting DNA Endonucleases to Advance Mechanisms of DNA Repair. Biology, 2021, 10, 530.	1.3	7
1865	The genomes of precision edited cloned calves show no evidence for off-target events or increased de novo mutagenesis. BMC Genomics, 2021, 22, 457.	1.2	6
1866	Prediction and validation of hematopoietic stem and progenitor cell off-target editing in transplanted rhesus macaques. Molecular Therapy, 2022, 30, 209-222.	3.7	17
1867	AsCas12a ultra nuclease facilitates the rapid generation of therapeutic cell medicines. Nature Communications, 2021, 12, 3908.	5.8	73
1868	CRISPR/Cas based gene editing: marking a new era in medical science. Molecular Biology Reports, 2021, 48, 4879-4895.	1.0	9
1869	Live-cell imaging of circadian clock protein dynamics in CRISPR-generated knock-in cells. Nature Communications, 2021, 12, 3796.	5.8	42
1870	Therapeutic liver repopulation by transient acetaminophen selection of gene-modified hepatocytes. Science Translational Medicine, 2021, 13, .	5.8	16
1872	Simplified All-In-One CRISPR-Cas9 Construction for Efficient Genome Editing in Cryptococcus Species. Journal of Fungi (Basel, Switzerland), 2021, 7, 505.	1.5	6
1873	Mismatch Intolerance of 5'â€²-Truncated sgRNAs in CRISPR/Cas9 Enables Efficient Microbial Single-Base Genome Editing. International Journal of Molecular Sciences, 2021, 22, 6457.	1.8	10
1874	Current widely-used web-based tools for CRISPR nucleases, base editors, and prime editors. Gene and Genome Editing, 2021, 1, 100004.	1.3	6
1875	Challenges in delivery systems for CRISPR-based genome editing and opportunities of nanomedicine. Biomedical Engineering Letters, 2021, 11, 217-233.	2.1	11
1876	Advances in CRISPR/Cas9-mediated genome editing on vegetable crops. In Vitro Cellular and Developmental Biology - Plant, 2021, 57, 672-682.	0.9	6

#	ARTICLE	IF	CITATIONS
1877	Improved CRISPR genome editing using small highly active and specific engineered RNA-guided nucleases. <i>Nature Communications</i> , 2021, 12, 4219.	5.8	29
1878	Genome editing and its applications in genetic improvement in aquaculture. <i>Reviews in Aquaculture</i> , 2022, 14, 178-191.	4.6	44
1880	Arabidopsis OSMOTIN 34 Functions in the ABA Signaling Pathway and Is Regulated by Proteolysis. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7915.	1.8	11
1881	Review of applications of CRISPR-Cas9 gene-editing technology in cancer research. <i>Biological Procedures Online</i> , 2021, 23, 14.	1.4	18
1882	ÐŸÐ³⁄⁄Ð»ÑfÑ‡ÐµÐ½²ÐµÑ,Ñ€Ð°Ð½²ÑÐ³ÐµÐ½²Ð½Ñ«Ñ...ÑÐ½⁄⁄±Ñ€Ð³⁄⁄Ð½²Ð°Ð»Ñ€Ð½²Ñ«Ñ...ÑÑ,Ð²Ð³⁄⁄Ð»Ð³⁄⁄Ð½«Ñ.Ð°Ð°Ð»»ÐµÑÑ		
1883	Base editing-coupled survival screening enabled high-sensitive analysis of PAM compatibility and finding of the new possible off-target. <i>IScience</i> , 2021, 24, 102769.	1.9	2
1884	Effect of ADAMTS1 Differential Expression on the Radiation-Induced Response of HÐµLÐ° Cell Line. <i>Russian Journal of Genetics</i> , 2021, 57, 856-862.	0.2	1
1885	Applications of CRISPR-Cas9 as an Advanced Genome Editing System in Life Sciences. <i>BioTech</i> , 2021, 10, 14.	1.3	23
1886	Gene therapy for Fabry disease: Progress, challenges, and outlooks on gene-editing. <i>Molecular Genetics and Metabolism</i> , 2021, 134, 117-131.	0.5	13
1887	Strengthening the CARâ€ cell therapeutic application using CRISPR/Cas9 technology. <i>Biotechnology and Bioengineering</i> , 2021, 118, 3691-3705.	1.7	13
1889	Sense-overlapping lncRNA as a decoy of translational repressor protein for dimorphic gene expression. <i>PLoS Genetics</i> , 2021, 17, e1009683.	1.5	18
1890	Generation of Transgenic Rat Embryonic Stem Cells Using the CRISPR/Cpf1 System for Inducible Gene Knockout. <i>Biochemistry (Moscow)</i> , 2021, 86, 843-851.	0.7	0
1891	Paving the way towards precise and safe CRISPR genome editing. <i>Biotechnology Advances</i> , 2021, 49, 107737.	6.0	19
1892	Cancer Cell-specific Transfection of hCas9 Gene Using Ad5F35 Vector. <i>Anticancer Research</i> , 2021, 41, 3731-3740.	0.5	3
1893	CRISPR/Cas9-Mediated Targeted Mutagenesis of CYP93E2 Modulates the Triterpene Saponin Biosynthesis in <i>Medicago truncatula</i> . <i>Frontiers in Plant Science</i> , 2021, 12, 690231.	1.7	19
1894	Regulated control of gene therapies by drug-induced splicing. <i>Nature</i> , 2021, 596, 291-295.	13.7	58
1895	CRISPR/ Cas9 Off-targets: Computational Analysis of Causes, Prediction, Detection, and Overcoming Strategies. <i>Current Bioinformatics</i> , 2022, 17, 119-132.	0.7	3
1896	Clustered regularly interspaced short palindromic repeats as an advanced treatment for Parkinson's disease. <i>Brain and Behavior</i> , 2021, 11, e2280.	1.0	6

#	ARTICLE	IF	CITATIONS
1897	A Multistep Workflow to Evaluate Newly Generated iPSCs and Their Ability to Generate Different Cell Types. <i>Methods and Protocols</i> , 2021, 4, 50.	0.9	40
1898	DNA Repair Pathway Choices in CRISPR-Cas9-Mediated Genome Editing. <i>Trends in Genetics</i> , 2021, 37, 639-656.	2.9	126
1899	Machine learning applications for therapeutic tasks with genomics data. <i>Patterns</i> , 2021, 2, 100328.	3.1	14
1900	CRISPR/Cas9-mediated targeted mutagenesis in Japanese cedar ( <i>Cryptomeria japonica</i> D. Don). <i>Scientific Reports</i> , 2021, 11, 16186.	1.6	20
1901	The potential use of <i>Drosophila</i> as an in vivo model organism for COVID-19-related research: a review. <i>Turkish Journal of Biology</i> , 2021, 45, 559-569.	2.1	4
1902	The international governance of gene drive organisms. <i>Environmental Politics</i> , 0, , 1-20.	3.4	3
1903	Genome Editing in Medicine: Tools and Challenges. <i>Acta Medica Lituanica</i> , 2021, 28, 8.	0.2	2
1907	Current advances in overcoming obstacles of CRISPR/Cas9 off-target genome editing. <i>Molecular Genetics and Metabolism</i> , 2021, 134, 77-86.	0.5	15
1908	TALENs as an indispensable tool in the era of CRISPR: a mini review. <i>Journal of Genetic Engineering and Biotechnology</i> , 2021, 19, 125.	1.5	41
1909	Evaluating CRISPR-based prime editing for cancer modeling and CFTR repair in organoids. <i>Life Science Alliance</i> , 2021, 4, e202000940.	1.3	67
1910	<i>DMRT1</i> gene disruption alone induces incomplete gonad feminization in chicken. <i>FASEB Journal</i> , 2021, 35, e21876.	0.2	16
1911	Off-Target Analysis in Gene Editing and Applications for Clinical Translation of CRISPR/Cas9 in HIV-1 Therapy. <i>Frontiers in Genome Editing</i> , 2021, 3, 673022.	2.7	28
1912	Fast and Efficient Generation of Isogenic Induced Pluripotent Stem Cell Lines Using Adenine Base Editing. <i>CRISPR Journal</i> , 2021, 4, 502-518.	1.4	6
1913	Pathways to Clinical Cardiac Xenotransplantation. <i>Transplantation</i> , 2021, 105, 1930-1943.	0.5	27
1914	Embryo-Engineered Nonhuman Primate Models: Progress and Gap to Translational Medicine. <i>Research</i> , 2021, 2021, 9898769.	2.8	3
1915	A gene-editing/complementation strategy for tissue-specific lignin reduction while preserving biomass yield. <i>Biotechnology for Biofuels</i> , 2021, 14, 175.	6.2	12
1916	Preclinical Assessment of a Gene-Editing Approach in a Mouse Model of Mitochondrial Neurogastrointestinal Encephalomyopathy. <i>Human Gene Therapy</i> , 2021, 32, 1210-1223.	1.4	7
1919	Perfecting Targeting in CRISPR. <i>Annual Review of Genetics</i> , 2021, 55, 453-477.	3.2	10



#	ARTICLE	IF	CITATIONS
1920	Innovations in CRISPR-Based Therapies. <i>Molecular Biotechnology</i> , 2021, , 1.	1.3	5
1921	Evaluation of two inÂvitro assays for tumorigenicity assessment of CRISPR-Cas9 genome-edited cells. <i>Molecular Therapy - Methods and Clinical Development</i> , 2021, 23, 241-253.	1.8	5
1922	LATEâ€“a novel sensitive cell-based assay for the study of CRISPR/Cas9-related long-term adverse treatment effects. <i>Molecular Therapy - Methods and Clinical Development</i> , 2021, 22, 249-262.	1.8	1
1923	Optimized nickase- and nuclease-based prime editing in human and mouse cells. <i>Nucleic Acids Research</i> , 2021, 49, 10785-10795.	6.5	47
1924	Gene correction by 5â€²-tailed duplexes with short editor oligodeoxyribonucleotides. <i>Journal of Bioscience and Bioengineering</i> , 2021, 132, 552-559.	1.1	3
1925	Modulation of bioelectric cues in the evolution of flying fishes. <i>Current Biology</i> , 2021, 31, 5052-5061.e8.	1.8	16
1926	MULTIPLEXED SIV-SPECIFIC PAIRED RNA-GUIDED CAS9 NICKASES INACTIVATE PROVIRAL DNA. <i>Journal of Virology</i> , 2021, 95, e0088221.	1.5	2
1928	Engineering chromosome rearrangements in cancer. <i>DMM Disease Models and Mechanisms</i> , 2021, 14, .	1.2	2
1929	Reduced off-target effect of NG-BE4max by using NG-HiFi system. <i>Molecular Therapy - Nucleic Acids</i> , 2021, 25, 168-172.	2.3	3
1931	The Off-Targets of Clustered Regularly Interspaced Short Palindromic Repeats Gene Editing. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 718466.	1.8	11
1932	mRNA delivery via non-viral carriers for biomedical applications. <i>International Journal of Pharmaceutics</i> , 2021, 607, 121020.	2.6	17
1933	Optical Control of Base Editing and Transcription through Lightâ€Activated Guide RNA. <i>ChemPhotoChem</i> , 0, , .	1.5	8
1934	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.	6.5	9
1935	In silico analysis enabling informed design for genome editing in medicinal cannabis; gene families and variant characterisation. <i>PLoS ONE</i> , 2021, 16, e0257413.	1.1	4
1936	CRISPR: History and perspectives to the future. <i>Biomedicine and Pharmacotherapy</i> , 2021, 141, 111917.	2.5	24
1937	Recent advancements on use of CRISPR /Cas9 in maize yield and quality improvement. <i>Notulae Botanicae Horti Agrobotanici Cluj-Napoca</i> , 2021, 49, 12459.	0.5	5
1938	Synthetic modified messenger RNA for therapeutic applications. <i>Acta Biomaterialia</i> , 2021, 131, 1-15.	4.1	34
1941	Challenges for the Applications of Human Pluripotent Stem Cell-Derived Liver Organoids. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 748576.	1.8	13

#	ARTICLE	IF	CITATIONS
1942	Latest progress in the study of nanoparticle-based delivery of the CRISPR/Cas9 system. <i>Methods</i> , 2021, 194, 48-55.	1.9	6
1943	CRISPR/Cas9-based inactivation of human papillomavirus oncogenes E6 or E7 induces senescence in cervical cancer cells. <i>Virology</i> , 2021, 562, 92-102.	1.1	18
1944	CRISPR/Cas9-mediated Inactivation of arginase in a yeast strain isolated from Nuruk and its impact on the whole genome. <i>Journal of Biotechnology</i> , 2021, 341, 163-167.	1.9	6
1945	Tissue-specific expression of Cas9 has no impact on whole-body metabolism in four transgenic mouse lines. <i>Molecular Metabolism</i> , 2021, 53, 101292.	3.0	5
1946	CRISPR/Cas correction of muscular dystrophies. <i>Experimental Cell Research</i> , 2021, 408, 112844.	1.2	11
1947	Probing into the interactions between papers and patents of new CRISPR/CAS9 technology: A citation comparison. <i>Journal of Informetrics</i> , 2021, 15, 101189.	1.4	5
1948	Genomic knockout of hsp23 both decreases and increases fitness under opposing thermal extremes in <i>Drosophila melanogaster</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2021, 139, 103652.	1.2	4
1949	Genome editing. , 2022, , 339-355.		0
1950	Cystic Fibrosis Cellular Treatments. , 2022, , 161-178.		0
1951	Muscle growth in targeted knockout common carp ( <i>Cyprinus carpio</i> ) mstn gene with low off-target effects. <i>Aquaculture</i> , 2022, 547, 737423.	1.7	22
1952	pDNA and mRNA vaccines. , 2022, , 157-205.		1
1953	Immune responses to CRISPR-Cas protein. <i>Progress in Molecular Biology and Translational Science</i> , 2021, 178, 213-229.	0.9	1
1954	Will CRISPR-Cas9 Have Cards to Play Against Cancer? An Update on its Applications. <i>Molecular Biotechnology</i> , 2021, 63, 93-108.	1.3	5
1955	Erratic journey of CRISPR/Cas9 in oncology from bench-work to successful-clinical therapy. <i>Cancer Treatment and Research Communications</i> , 2021, 27, 100289.	0.7	7
1956	Recombineering and MAGE. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	11.8	47
1957	Principles and Applications of RNA-Based Genome Editing for Crop Improvement. <i>Concepts and Strategies in Plant Sciences</i> , 2021, , 247-278.	0.6	1
1958	Genome editing of hPSCs: Recent progress in hPSC-based disease modeling for understanding disease mechanisms. <i>Progress in Molecular Biology and Translational Science</i> , 2021, 181, 271-287.	0.9	1
1959	Gene and epigenetic editing in the treatment of primary ciliopathies. <i>Progress in Molecular Biology and Translational Science</i> , 2021, 182, 353-401.	0.9	3

#	ARTICLE	IF	CITATIONS
1960	CRISPR interference and its applications. Progress in Molecular Biology and Translational Science, 2021, 180, 123-140.	0.9	8
1961	CRISPR based development of RNA editing and the diagnostic platform. Progress in Molecular Biology and Translational Science, 2021, 179, 117-159.	0.9	0
1962	DGK and DZHK position paper on genome editing: basic science applications and future perspective. Basic Research in Cardiology, 2021, 116, 2.	2.5	5
1963	Advances in pluripotent stem cell-derived natural killer cells for cancer immunotherapy. , 2021, , 165-181.		0
1964	Off-target effects in genome editing. , 2021, , 715-727.		1
1965	High-Fidelity CRISPR/Cas9-Based Gene-Specific. Methods in Molecular Biology, 2021, 2272, 195-206.	0.4	0
1966	Engineered dual selection for directed evolution of SpCas9 PAM specificity. Nature Communications, 2021, 12, 349.	5.8	10
1967	The Functions and Unique Features of LncRNAs in Cancer Development and Tumorigenesis. International Journal of Molecular Sciences, 2021, 22, 632.	1.8	108
1968	Chromatin accessibility and guide sequence secondary structure affect <scp>CRISPR</scp>â€Cas9 gene editing efficiency. FEBS Letters, 2017, 591, 1892-1901.	1.3	175
1969	CRISPRâ€Mediated Gene Targeting of Human Induced Pluripotent Stem Cells. Current Protocols in Stem Cell Biology, 2015, 35, 5A.8.1-5A.8.22.	3.0	21
1970	Stem Cell Therapy of Myocardial Infarction: A Promising Opportunity in Bioengineering. Advanced Therapeutics, 2020, 3, 1900182.	1.6	15
1971	Genome Editing in Zebrafish Using High-Fidelity Cas9 Nucleases: Choosing the Right Nuclease for the Task. Methods in Molecular Biology, 2020, 2115, 385-405.	0.4	4
1972	Profiling Genome-Wide Specificity of CRISPR-Cas9 Using Digenome-Seq. Methods in Molecular Biology, 2021, 2162, 233-242.	0.4	1
1973	Detection of CRISPR/Cas9-Generated Off-Target Effect by Integration-Defective Lentiviral Vector. Methods in Molecular Biology, 2021, 2162, 243-260.	0.4	2
1974	Genome-Wide CRISPR Off-Target DNA Break Detection by the BLISS Method. Methods in Molecular Biology, 2021, 2162, 261-281.	0.4	4
1975	Web-Based CRISPR Toolkits: Cas-OFFinder, Cas-Designer, and Cas-Analyzer. Methods in Molecular Biology, 2021, 2162, 23-33.	0.4	14
1976	Gene Disruption Using Chemically Modified CRISPR-Cpf1 RNA. Methods in Molecular Biology, 2021, 2162, 49-60.	0.4	2
1977	CRISPR Guide RNA Design Guidelines for Efficient Genome Editing. Methods in Molecular Biology, 2020, 2166, 331-342.	0.4	10

#	ARTICLE	IF	CITATIONS
1978	A Simple Protocol for Loss-of-Function Analysis in <i>Xenopus tropicalis</i> Founders Using the CRISPR-Cas System. <i>Methods in Molecular Biology</i> , 2017, 1630, 189-203.	0.4	10
1979	Emerging Genome Engineering Tools in Crop Research and Breeding. <i>Methods in Molecular Biology</i> , 2020, 2072, 165-181.	0.4	18
1980	Chimeric Antigen Receptors for the Tumour Microenvironment. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1263, 117-143.	0.8	8
1981	Cell Line Development. <i>Cell Engineering</i> , 2015, , 1-25.	0.4	5
1982	Key Methods for Synthetic Biology: Genome Engineering and DNA Assembly. , 2016, , 101-141.		4
1983	Targeted Genetic Modification in Crops Using Site-Directed Nucleases. , 2016, , 133-145.		3
1984	Therapeutic Gene Editing with CRISPR. <i>Clinics in Laboratory Medicine</i> , 2020, 40, 205-219.	0.7	3
1985	CRISPR-Cas systems: Overview, innovations and applications in human disease research and gene therapy. <i>Computational and Structural Biotechnology Journal</i> , 2020, 18, 2401-2415.	1.9	100
1986	Challenges of in vitro genome editing with CRISPR/Cas9 and possible solutions: A review. <i>Gene</i> , 2020, 753, 144813.	1.0	15
1987	A Small Molecule-Controlled Cas9 Repressible System. <i>Molecular Therapy - Nucleic Acids</i> , 2020, 19, 922-932.	2.3	24
1988	Highly specific targeted mutagenesis in plants using <i>Staphylococcus aureus</i> Cas9. <i>Scientific Reports</i> , 2016, 6, 26871.	1.6	112
1989	CRISPR Highlights and Transition of Cas9 into a Genome Editing Tool. <i>Chemical Biology</i> , 2018, , 391-407.	0.1	1
1990	Editor's cut: DNA cleavage by CRISPR RNA-guided nucleases Cas9 and Cas12a. <i>Biochemical Society Transactions</i> , 2020, 48, 207-219.	1.6	14
1991	CRISPR-based gene expression control for synthetic gene circuits. <i>Biochemical Society Transactions</i> , 2020, 48, 1979-1993.	1.6	30
1992	Evaluation of Homology-Independent CRISPR-Cas9 Off-Target Assessment Methods. <i>CRISPR Journal</i> , 2020, 3, 440-453.	1.4	32
2031	When genome editing goes off-target. <i>Science</i> , 2019, 364, 234-236.	6.0	18
2033	Genetic Modification of Animals: Scientific and Ethical Issues. , 2019, , 443-479.		3
2034	MICAL1 constrains cardiac stress responses and protects against disease by oxidizing CaMKII. <i>Journal of Clinical Investigation</i> , 2020, 130, 4663-4678.	3.9	23

#	ARTICLE	IF	CITATIONS
2035	TALEN-mediated targeting of HPV oncogenes ameliorates HPV-related cervical malignancy. <i>Journal of Clinical Investigation</i> , 2015, 125, 425-436.	3.9	97
2037	Sequencing data from Massachusetts General Hospital shows Cas9 integration into the genome, highlighting a serious hazard in gene-editing therapeutics. <i>F1000Research</i> , 0, 8, 1846.	0.8	9
2038	An image-based, dual fluorescence reporter assay to evaluate the efficacy of shRNA for gene silencing at the single-cell level. <i>F1000Research</i> , 0, 3, 60.	0.8	5
2039	A CRISPR method for genome engineering. <i>F1000prime Reports</i> , 2014, 6, 3.	5.9	35
2040	Advances in understanding and treating dystrophic epidermolysis bullosa. <i>F1000prime Reports</i> , 2014, 6, 35.	5.9	15
2041	Evaluation of RNAi and CRISPR technologies by large-scale gene expression profiling in the Connectivity Map. <i>PLoS Biology</i> , 2017, 15, e2003213.	2.6	136
2042	A Biophysical Model of CRISPR/Cas9 Activity for Rational Design of Genome Editing and Gene Regulation. <i>PLoS Computational Biology</i> , 2016, 12, e1004724.	1.5	96
2043	A machine learning approach for predicting CRISPR-Cas9 cleavage efficiencies and patterns underlying its mechanism of action. <i>PLoS Computational Biology</i> , 2017, 13, e1005807.	1.5	147
2044	Precise Gene Modification Mediated by TALEN and Single-Stranded Oligodeoxynucleotides in Human Cells. <i>PLoS ONE</i> , 2014, 9, e93575.	1.1	23
2045	Targeted Genome Editing of Sweet Orange Using Cas9/sgRNA. <i>PLoS ONE</i> , 2014, 9, e93806.	1.1	382
2046	CRISPR/Cas9 Allows Efficient and Complete Knock-In of a Destabilization Domain-Tagged Essential Protein in a Human Cell Line, Allowing Rapid Knockdown of Protein Function. <i>PLoS ONE</i> , 2014, 9, e95101.	1.1	38
2047	Heritable Genome Editing with CRISPR/Cas9 in the Silkworm, <i>Bombyx mori</i> . <i>PLoS ONE</i> , 2014, 9, e101210.	1.1	66
2048	Identification of Proteins Associated with an IFN $\beta$ -Responsive Promoter by a Retroviral Expression System for enChIP Using CRISPR. <i>PLoS ONE</i> , 2014, 9, e103084.	1.1	45
2049	CRISPR-Cas9-Based Knockout of the Prion Protein and Its Effect on the Proteome. <i>PLoS ONE</i> , 2014, 9, e114594.	1.1	51
2050	Transcription Activator-Like Effector Nuclease (TALEN)-Mediated CLYBL Targeting Enables Enhanced Transgene Expression and One-Step Generation of Dual Reporter Human Induced Pluripotent Stem Cell (iPSC) and Neural Stem Cell (NSC) Lines. <i>PLoS ONE</i> , 2015, 10, e0116032.	1.1	84
2051	Increased Specific Labeling of INS-1 Pancreatic Beta-Cell by Using RIP-Driven Cre Mutants with Reduced Activity. <i>PLoS ONE</i> , 2015, 10, e0129092.	1.1	5
2052	CRISPR/Cas9-Mediated Genomic Deletion of the Beta-1, 4 N-acetylgalactosaminyltransferase 1 Gene in Murine P19 Embryonal Carcinoma Cells Results in Low Sensitivity to Botulinum Neurotoxin Type C. <i>PLoS ONE</i> , 2015, 10, e0132363.	1.1	8
2053	Deep Brain Photoreceptor (val-opsin) Gene Knockout Using CRISPR/Cas Affects Chorion Formation and Embryonic Hatching in the Zebrafish. <i>PLoS ONE</i> , 2016, 11, e0165535.	1.1	7

#	ARTICLE	IF	CITATIONS
2054	Zygotic vinculin is not essential for embryonic development in zebrafish. PLoS ONE, 2017, 12, e0182278.	1.1	20
2055	Highly efficient gene inactivation by adenoviral CRISPR/Cas9 in human primary cells. PLoS ONE, 2017, 12, e0182974.	1.1	44
2056	Versatile single-step-assembly CRISPR/Cas9 vectors for dual gRNA expression. PLoS ONE, 2017, 12, e0187236.	1.1	36
2057	CRISPR/Cas9-Mediated Genome Editing of Herpesviruses Limits Productive and Latent Infections. PLoS Pathogens, 2016, 12, e1005701.	2.1	221
2058	The big bang of genome editing technology: development and application of the CRISPR/Cas9 system in disease animal models. Zoological Research, 2016, 37, 191-204.	0.6	13
2059	Advances and perspectives in the application of CRISPR/Cas9 in insects. Zoological Research, 2016, 37, 220-8.	0.6	14
2060	CRISPR Explorer: A fast and intuitive tool for designing guide RNA for genome editing. Journal of Biological Methods, 2016, 3, e56.	1.0	4
2061	CRISPR/Cas9; A robust technology for producing genetically engineered plants. Cellular and Molecular Biology, 2018, 64, 31-38.	0.3	11
2062	Dynamics of <i>Staphylococcus aureus</i> Cas9 in <i>scp</i> DNA target Association and Dissociation. EMBO Reports, 2020, 21, e50184.	2.0	20
2064	Establishment of mitochondrial pyruvate carrier 1 (MPC1) gene knockout mice with preliminary gene function analyses. Oncotarget, 2016, 7, 79981-79994.	0.8	17
2065	Rapid generation of novel models of RAG1 deficiency by CRISPR/Cas9-induced mutagenesis in murine zygotes. Oncotarget, 2016, 7, 12962-12974.	0.8	11
2066	Forward and reverse mutagenesis in <i>C. elegans</i> . WormBook, 2014, , 1-26.	5.3	72
2067	Regulatory Assessment of Off-Target Changes and Spurious DNA Insertions in Gene-Edited Organisms for Agri-Food Use. , 2021, 9, 1-15.		8
2068	The transformational impact of site-specific DNA modifiers on biomedicine and agriculture. Animal Reproduction, 2018, 15, 171-179.	0.4	1
2069	An Overview of Computational Tools of Nucleic Acid Binding Site Prediction for Site-specific Proteins and Nucleases. Protein and Peptide Letters, 2020, 27, 370-384.	0.4	2
2070	CRISPR/Cas9 System and its Research Progress in Gene Therapy. Anti-Cancer Agents in Medicinal Chemistry, 2020, 19, 1912-1919.	0.9	4
2071	Keeping CRISPR/Cas on-Target. Current Issues in Molecular Biology, 2016, , .	1.0	21
2072	CRISPR/Cas9 System and its Research Progress in Gene Therapy. Chinese Medical Sciences Journal		

#	ARTICLE	IF	CITATIONS
2073	Epigenetic Footprints of CRISPR/Cas9-Mediated Genome Editing in Plants. <i>Frontiers in Plant Science</i> , 2019, 10, 1720.	1.7	20
2074	Generation and Molecular Characterization of CRISPR/Cas9-Induced Mutations in 63 Immunity-Associated Genes in Tomato Reveals Specificity and a Range of Gene Modifications. <i>Frontiers in Plant Science</i> , 2020, 11, 10.	1.7	51
2075	Computational Tools and Resources Supporting CRISPR-Cas Experiments. <i>Cells</i> , 2020, 9, 1288.	1.8	38
2076	Virus-Like Particle Mediated CRISPR/Cas9 Delivery for Efficient and Safe Genome Editing. <i>Life</i> , 2020, 10, 366.	1.1	32
2078	Novel therapeutic approaches for hepatitis B virus covalently closed circular DNA. <i>World Journal of Gastroenterology</i> , 2015, 21, 7084-7088.	1.4	15
2079	Advance genome editing technologies in the treatment of human diseases: CRISPR therapy (Review). <i>International Journal of Molecular Medicine</i> , 2020, 46, 521-534.	1.8	19
2080	Therapeutic Potential of Anti-HIV RNA-loaded Exosomes. <i>Biomedical and Environmental Sciences</i> , 2018, 31, 215-226.	0.2	8
2081	Advantages of using the CRISPR/Cas9 system of genome editing to investigate male reproductive mechanisms using mouse models. <i>Asian Journal of Andrology</i> , 2015, 17, 623.	0.8	11
2082	An Overview Of The Crispr-Based Genomic- And Epigenome-Editing System: Function, Applications, And Challenges. <i>Advanced Biomedical Research</i> , 2019, 8, 49.	0.2	5
2083	Genomic integrity of human induced pluripotent stem cells: Reprogramming, differentiation and applications. <i>World Journal of Stem Cells</i> , 2019, 11, 729-747.	1.3	19
2084	CRISPR/Cas system: An emerging technology in stem cell research. <i>World Journal of Stem Cells</i> , 2019, 11, 937-956.	1.3	23
2085	Human induced pluripotent stem cells for monogenic disease modelling and therapy. <i>World Journal of Stem Cells</i> , 2016, 8, 118.	1.3	27
2086	Progress and prospects of engineered sequence-specific DNA modulating technologies for the management of liver diseases. <i>World Journal of Hepatology</i> , 2015, 7, 859.	0.8	5
2087	Astonishing advances in mouse genetic tools for biomedical research. <i>Swiss Medical Weekly</i> , 2015, 145, w14186.	0.8	15
2088	Recent advances in developing molecular tools for targeted genome engineering of mammalian cells. <i>BMB Reports</i> , 2015, 48, 6-12.	1.1	3
2089	Development of CRISPR/Cas9 system for targeted DNA modifications and recent improvements in modification efficiency and specificity. <i>BMB Reports</i> , 2020, 53, 341-348.	1.1	4
2090	Myostatin gene knockout mediated by Cas9-D10A nickase in chicken DF1 cells without off-target effect. <i>Asian-Australasian Journal of Animal Sciences</i> , 2017, 30, 743-748.	2.4	14
2091	RNAi-mediated control of CRISPR functions. <i>Theranostics</i> , 2020, 10, 6661-6673.	4.6	10

#	ARTICLE	IF	CITATIONS
2093	A general strategy to construct small molecule biosensors in eukaryotes. <i>ELife</i> , 2015, 4, .	2.8	145
2094	Conditional deletion of glucocorticoid receptors in rat brain results in sex-specific deficits in fear and coping behaviors. <i>ELife</i> , 2019, 8, .	2.8	24
2095	Genome engineering of mammalian haploid embryonic stem cells using the Cas9/RNA system. <i>PeerJ</i> , 2013, 1, e230.	0.9	39
2096	Assessment of genomic changes in a CRISPR/Cas9 <i>Phaeodactylum tricornutum</i> mutant through whole genome resequencing. <i>PeerJ</i> , 2018, 6, e5507.	0.9	26
2097	Genetic editing of the virulence gene of <i>Escherichia coli</i> using the CRISPR system. <i>PeerJ</i> , 2020, 8, e8881.	0.9	10
2098	Enhanced genome editing in human iPSCs with CRISPR-CAS9 by co-targeting <i>ATP1a1</i> . <i>PeerJ</i> , 2020, 8, e9060.	0.9	10
2099	Raising Climate-Resilient Crops: Journey From the Conventional Breeding to New Breeding Approaches. <i>Current Genomics</i> , 2021, 22, 450-467.	0.7	7
2101	Gene Editing Technologies for Sugarcane Improvement: Opportunities and Limitations. <i>Sugar Tech</i> , 2022, 24, 369-385.	0.9	9
2103	Cas12a variants designed for lower genome-wide off-target effect through stringent PAM recognition. <i>Molecular Therapy</i> , 2022, 30, 244-255.	3.7	11
2105	Repair of Accidental DNA Double-Strand Breaks in the Human Genome and Its Relevance to Vector DNA Integration. <i>Gene Technology</i> , 2014, 03, .	0.5	0
2106	Stem Cell Therapy for Neurological Disorders: From Bench to Bedside. , 2014, , 41-70.		0
2107	An image-based, dual fluorescence reporter assay to evaluate the efficacy of shRNA for gene silencing at the single-cell level. <i>F1000Research</i> , 2014, 3, 60.	0.8	5
2109	Developing CRISPR/Cas9 Technologies for Research and Medicine. <i>MOJ Cell Science &amp; Report</i> , 2014, 1, .	0.1	0
2112	Genome Editing Using Site-Specific Nucleases in Amphibians. , 2015, , 133-149.		1
2113	Genome Editing in Mice Using CRISPR/Cas9: Achievements and Prospects. <i>Cloning &amp; Transgenesis</i> , 2015, 04, .	0.1	2
2114	The potential of Genome-editing techniques. <i>Japanese Journal of Thrombosis and Hemostasis</i> , 2015, 26, 534-540.	0.1	0
2117	An efficient gene targeting system using homologous recombination in plants. <i>Journal of Plant Biotechnology</i> , 2015, 42, 154-160.	0.1	0
2118	Genome Editing in Human Pluripotent Stem Cells. <i>Pancreatic Islet Biology</i> , 2016, , 43-67.	0.1	0



#	ARTICLE	IF	CITATIONS
2122	Genetic Engineering: Pros versus Cons in Deciphering Disease Mechanism. Science Insights, 2016, 2016, 1-4.	0.1	2
2124	Designer Effectors for Editing and Regulating Complex Genomes. , 2017, , 137-157.		0
2126	4 CRISPR-Based Genome Engineering in Human Stem Cells. , 2017, , 87-100.		0
2127	Optimizing Crispr Cas9 Genome Editing System:A Review. International Journal of Endorsing Health Science Research (ijehsr), 2017, 5, 48.	0.0	0
2130	CRISPR system for genome engineering: the application for autophagy study. BMB Reports, 2017, 50, 247-256.	1.1	2
2132	IMPROVING THE FUNCTION OF CRISPR-CAS9 FOR GENOME EDITING THERAPY: EDITING THE EDITOR. Jurnal Bioteknologi & Biosains Indonesia (JBBI), 2017, 4, 44.	0.1	0
2145	Selected Innovative Solutions for the Regulation of GM Crops in Times of Gene Editing. , 2019, , 3-41.		2
2146	Applying CRISPR-Cas9 Off-Target Editing on DNA based Steganography. International Journal of Advanced Computer Science and Applications, 2019, 10, .	0.5	0
2152	Gene Editing from the Perspective of Spanish Law. Veröffentlichungen Des Instituts Für Deutsches, EuropÄisches Und Internationales Medizinrecht, Gesundheitsrecht Und Bioethik Der UniversitÄten Heidelberg Und Mannheim, 2020, , 389-411.	0.2	0
2160	Nomenclature: Naming Your Gene-Modified Mouse. Methods in Molecular Biology, 2020, 2066, 149-162.	0.4	0
2167	Calmodulinopathy Analysis of Human iPS Cell Model of Long-QT Syndrome with a CALM2 Mutation and Therapeutic Approach Using Genome Editing Technology. Japanese Journal of Electrocardiology, 2019, 39, 273-282.	0.0	0
2168	Efficient Generation of Human IgG1 Light Kappa Constant Region Knock-in Mouse by CRISPR/Cas9 System. Biomedical Science Letters, 2019, 25, 372-380.	0.0	1
2170	CRISPR-Cas9 Genome Editing in Human Cell Lines with Donor Vector Made by Gibson Assembly. Methods in Molecular Biology, 2020, 2115, 365-383.	0.4	1
2175	Efficient Production of loxP Knock-in Mouse using CRISPR/Cas9 System. Biomedical Science Letters, 2020, 26, 114-119.	0.0	0
2179	Computational Approaches for Designing Highly Specific and Efficient sgRNAs. Methods in Molecular Biology, 2022, 2349, 147-166.	0.4	0
2181	Targeting IgE polyadenylation signal with antisense oligonucleotides decreases IgE secretion and plasma cell viability. Journal of Allergy and Clinical Immunology, 2022, 149, 1795-1801.	1.5	7
2182	Role of Gene Editing Tool CRISPR-Cas in the Management of Antimicrobial Resistance. Sustainable Agriculture Reviews, 2020, , 129-146.	0.6	1
2183	In vitro Assay Revealed Mismatches between Guide RNA and Target DNA can Enhance Cas9 Nuclease Activity. Current Chinese Science, 2020, 1, 69-72.	0.2	0

#	ARTICLE	IF	CITATIONS
2184	Genome-wide identification and analysis of highly specific CRISPR/Cas9 editing sites in pepper ( <i>Capsicum annuum</i> L.). <i>PLoS ONE</i> , 2020, 15, e0244515.	1.1	7
2185	TINCâ€” A Method to Dissect Regulatory Complexes at Single-Locus Resolutionâ€” Reveals an Extensive Protein Complex at the Nanog Promoter. <i>Stem Cell Reports</i> , 2020, 15, 1246-1259.	2.3	12
2186	THE JOURNEY OF CRISPR-CAS9 FROM BACTERIAL DEFENSE MECHANISM TO A GENE EDITING TOOL IN BOTH ANIMALS AND PLANTS. <i>Biological &amp; Clinical Sciences Research Journal</i> , 2020, 2020, .	0.4	11
2187	The history of CRISPR: from discovery to the present. , 2022, , 1-6.		0
2188	The ethics of gene editing in human stem cells. , 2022, , 111-121.		0
2189	CRISPR-Cas orthologs and variants. , 2022, , 7-38.		0
2190	iPSCs for modeling familial hypercholesterolemia type II A. , 2020, , 201-219.		0
2191	Gene Editing for Corneal Stromal Regeneration. <i>Methods in Molecular Biology</i> , 2020, 2145, 59-75.	0.4	1
2192	CRISPR and Food Security: Applications in Cereal Crops. <i>Concepts and Strategies in Plant Sciences</i> , 2020, , 53-67.	0.6	0
2193	Reflections on the system of evaluation of gene-edited livestock. <i>Frontiers of Agricultural Science and Engineering</i> , 2020, 7, 211.	0.9	3
2194	No excessive mutations in transcription activator-like effector nuclease-mediated Î±-1,3-galactosyltransferase knockout Yucatan miniature pigs. <i>Asian-Australasian Journal of Animal Sciences</i> , 2020, 33, 360-372.	2.4	7
2195	CRISPRâ€”BETS: a baseâ€”editing design tool for generating stop codons. <i>Plant Biotechnology Journal</i> , 2022, 20, 499-510.	4.1	21
2196	TALEN and CRISPR/Cas Genome Editing Systems: Tools of Discovery. <i>Acta Naturae</i> , 2014, 6, 19-40.	1.7	78
2197	CRISPR-Mediated Epigenome Editing. <i>Yale Journal of Biology and Medicine</i> , 2016, 89, 471-486.	0.2	30
2198	The Application of CRISPR/Cas9 for the Treatment of Retinal Diseases. <i>Yale Journal of Biology and Medicine</i> , 2017, 90, 533-541.	0.2	17
2199	Nuclease-Mediated Gene Therapies for Inherited Metabolic Diseases of the Liver. <i>Yale Journal of Biology and Medicine</i> , 2017, 90, 553-566.	0.2	11
2200	Expression of RecA and cell-penetrating peptide (CPP) fusion protein in bacteria and in mammalian cells. <i>International Journal of Biochemistry and Molecular Biology</i> , 2018, 9, 1-10.	0.1	4
2201	CRISPR/Cas9 System for Efficient Genome Editing and Targeting in the Mouse NIH/3T3 Cells. <i>Avicenna Journal of Medical Biotechnology</i> , 2019, 11, 149-155.	0.2	4

#	ARTICLE	IF	CITATIONS
2202	Gene surgery: Potential applications for human diseases. EXCLI Journal, 2019, 18, 908-930.	0.5	4
2205	Mouse Embryonic Fibroblasts Isolated From Nth1 D227Y Knockin Mice Exhibit Defective DNA Repair and Increased Genome Instability. DNA Repair, 2022, 109, 103247.	1.3	0
2206	CRISPR/Cas System and Factors Affecting Its Precision and Efficiency. Frontiers in Cell and Developmental Biology, 2021, 9, 761709.	1.8	20
2207	Holstein Friesian dairy cattle edited for diluted coat color as a potential adaptation to climate change. BMC Genomics, 2021, 22, 856.	1.2	17
2208	Applications of CRISPR-Cas Technologies to Proteomics. Genes, 2021, 12, 1790.	1.0	5
2209	Single nucleotide substitutions effectively block Cas9 and allow for scarless genome editing in <i>Caenorhabditis elegans</i> . Genetics, 2022, 220, .	1.2	5
2210	Efficiency of SpCas9 and AsCpf1 (Cas12a) programmable nucleases at genomic safe harbor loci in HEK293 cells. <i>Almanah Kliničeskoj Mediciny</i> , 2021, 49, 385-395.	0.2	0
2211	The short neuropeptide F receptor regulates olfaction-mediated foraging behavior in the oriental fruit fly <i>Bactrocera dorsalis</i> (Hendel). Insect Biochemistry and Molecular Biology, 2022, 140, 103697.	1.2	8
2212	A systematic genome-wide mapping of oncogenic mutation selection during CRISPR-Cas9 genome editing. Nature Communications, 2021, 12, 6512.	5.8	24
2213	A Highly Sensitive GFP Activation Assay for Detection of DNA Cleavage in Cells. Frontiers in Cell and Developmental Biology, 2021, 9, 771248.	1.8	2
2215	Revealing the composition of the eukaryotic microbiome of oyster spat by CRISPR-Cas Selective Amplicon Sequencing (CCSAS). Microbiome, 2021, 9, 230.	4.9	6
2216	R-CRISPR: A Deep Learning Network to Predict Off-Target Activities with Mismatch, Insertion and Deletion in CRISPR-Cas9 System. Genes, 2021, 12, 1878.	1.0	8
2217	High-Level Correction of the Sickle Mutation is Amplified in Vivo During Erythroid Differentiation. SSRN Electronic Journal, 0, , .	0.4	0
2218	Synthetic Gene Circuits: Design, Implement, and Apply. Proceedings of the IEEE, 2022, 110, 613-630.	16.4	4
2219	Reengineering of the CRISPR/Cas System. , 2022, , 149-186.		0
2220	Delivery of CRISPR-Cas tools for in vivo genome editing therapy: Trends and challenges. Journal of Controlled Release, 2022, 342, 345-361.	4.8	82
2221	Involvement of GOBP2 in the perception of a sex pheromone component in both larval and adult <i>Spodoptera litura</i> revealed using CRISPR/Cas9 mutagenesis. Insect Biochemistry and Molecular Biology, 2022, 141, 103719.	1.2	26
2222	Prime Editing in the model plant <i>Physcomitrium patens</i> and its potential in the tetraploid potato. Plant Science, 2022, 316, 111162.	1.7	32

#	ARTICLE	IF	CITATIONS
2223	CRISPR-Cas9 Delivery with the Ribonucleoprotein Complexes Increased EGFP Editing Efficiency. <i>Neurochemical Journal</i> , 2021, 15, 390-397.	0.2	0
2224	Genome editing of PD-L1 mediated by nucleobase-modified polyamidoamine for cancer immunotherapy. <i>Journal of Materials Chemistry B</i> , 2022, 10, 1291-1300.	2.9	6
2225	In silico analysis of potential off-target sites to gene editing for Mucopolysaccharidosis type I using the CRISPR/Cas9 system: Implications for population-specific treatments. <i>PLoS ONE</i> , 2022, 17, e0262299.	1.1	3
2228	Engineering T-Cell Resistance to HIV-1 Infection via Knock-In of Peptides from the Heptad Repeat 2 Domain of gp41. <i>MBio</i> , 2022, 13, e0358921.	1.8	6
2232	The Role of Recombinant AAV in Precise Genome Editing. <i>Frontiers in Genome Editing</i> , 2021, 3, 799722.	2.7	24
2233	The application of iPSC-derived kidney organoids and genome editing in kidney disease modeling. , 2022, , 111-136.		2
2234	ON-Target Adverse Events of CRISPR-Cas9 Nuclease: More Chaotic than Expected. <i>CRISPR Journal</i> , 2022, 5, 19-30.	1.4	27
2236	Observing Mesoscopic Nucleic Acid Capacitance Effect and Mismatch Impact via Graphene Transistors. <i>Small</i> , 2022, 18, e2105890.	5.2	5
2238	Two high-fidelity variants: efSaCas9 and SaCas9-HF, which one is better?. <i>Gene Therapy</i> , 2022, 29, 458-463.	2.3	4
2239	Comparative Analysis of the APOL1 Variants in the Genetic Landscape of Renal Carcinoma Cells. <i>Cancers</i> , 2022, 14, 733.	1.7	2
2240	Tailoring Cardiac Synthetic Transcriptional Modulation Towards Precision Medicine. <i>Frontiers in Cardiovascular Medicine</i> , 2021, 8, 783072.	1.1	1
2241	Genome-wide detection of CRISPR editing in vivo using GUIDE-tag. <i>Nature Communications</i> , 2022, 13, 437.	5.8	20
2242	Systematic decomposition of sequence determinants governing CRISPR/Cas9 specificity. <i>Nature Communications</i> , 2022, 13, 474.	5.8	23
2243	CRISPR-Cas9 induces large structural variants at on-target and off-target sites in vivo that segregate across generations. <i>Nature Communications</i> , 2022, 13, 627.	5.8	65
2244	Improved alpharetrovirus-based Gag.MS2 particles for efficient and transient delivery of CRISPR-Cas9 into target cells. <i>Molecular Therapy - Nucleic Acids</i> , 2022, 27, 810-823.	2.3	8
2245	Knock-In of a Large Reporter Gene via the High-Throughput Microinjection of the CRISPR/Cas9 System. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 2524-2532.	2.5	5
2246	CRISPR Therapeutics for Duchenne Muscular Dystrophy. <i>International Journal of Molecular Sciences</i> , 2022, 23, 1832.	1.8	14
2247	Efficient CRISPR Mutagenesis in Sturgeon Demonstrates Its Utility in Large, Slow-Maturing Vertebrates. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, 750833.	1.8	7

#	ARTICLE	IF	CITATIONS
2248	Delivery strategies for CRISPR/Cas genome editing tool for retinal dystrophies: challenges and opportunities. <i>Asian Journal of Pharmaceutical Sciences</i> , 2022, 17, 153-176.	4.3	12
2249	Inconclusive studies on possible CRISPR-Cas off-targets should moderate expectations about enzymes that have evolved to be non-specific. <i>Journal of Biosciences</i> , 2018, 43, 225-228.	0.5	2
2250	Gene Editing in Non-Small Cell Lung Cancer: Current Application and Future Perspective. <i>Oncologie</i> , 2022, 24, 65-83.	0.2	4
2254	An efficient and specific CRISPR-Cas9 genome editing system targeting soybean phytoene desaturase genes. <i>BMC Biotechnology</i> , 2022, 22, 7.	1.7	23
2255	Developing Non-Human Primate Models of Inherited Retinal Diseases. <i>Genes</i> , 2022, 13, 344.	1.0	2
2256	Exploring nano-enabled CRISPR-Cas-powered strategies for efficient diagnostics and treatment of infectious diseases. <i>Journal of Nanostructure in Chemistry</i> , 2022, 12, 833-864.	5.3	31
2257	Modulating DNA Repair Pathways to Diversify Genomic Alterations in <i>Saccharomyces cerevisiae</i> . <i>Microbiology Spectrum</i> , 2022, , e0232621.	1.2	1
2259	Homozygous might be hemizygous: CRISPR/Cas9 editing in iPSCs results in detrimental on-target defects that escape standard quality controls. <i>Stem Cell Reports</i> , 2022, 17, 993-1008.	2.3	32
2260	Highly specific chimeric DNA-RNA-guided genome editing with enhanced CRISPR-Cas12a system. <i>Molecular Therapy - Nucleic Acids</i> , 2022, 28, 353-362.	2.3	4
2262	Computational Tools and Resources for CRISPR/Cas Genome Editing. <i>Genomics, Proteomics and Bioinformatics</i> , 2023, 21, 108-126.	3.0	51
2263	Concurrent Gene Insertion, Deletion, and Inversion during the Construction of a Novel Attenuated BoHV-1 Using CRISPR/Cas9 Genome Editing. <i>Veterinary Sciences</i> , 2022, 9, 166.	0.6	2
2264	Structural basis for mismatch surveillance by CRISPR-Cas9. <i>Nature</i> , 2022, 603, 343-347.	13.7	116
2265	Activating cryptic biosynthetic gene cluster through a CRISPR-Cas12a-mediated direct cloning approach. <i>Nucleic Acids Research</i> , 2022, 50, 3581-3592.	6.5	23
2266	Challenges to Gene Editing Approaches in the Retina. <i>Klinische Monatsblätter Für Augenheilkunde</i> , 2022, 239, 275-283.	0.3	1
2267	Principles and Applications of CRISPR Toolkit in Virus Manipulation, Diagnosis, and Virus-Host Interactions. <i>Cells</i> , 2022, 11, 999.	1.8	3
2269	ABIN1 is a signal-induced autophagy receptor that attenuates NF- $\kappa$ B activation by recognizing linear ubiquitin chains. <i>FEBS Letters</i> , 2022, 596, 1147-1164.	1.3	8
2270	A transgenic mouse embryonic stem cell line for puromycin selection of VOV interneurons from heterogenous induced cultures. <i>Stem Cell Research and Therapy</i> , 2022, 13, 131.	2.4	0
2271	Strategies to overcome the main challenges of the use of CRISPR/Cas9 as a replacement for cancer therapy. <i>Molecular Cancer</i> , 2022, 21, 64.	7.9	45

#	ARTICLE	IF	CITATIONS
2272	A kinetic model predicts SpCas9 activity, improves off-target classification, and reveals the physical basis of targeting fidelity. <i>Nature Communications</i> , 2022, 13, 1367.	5.8	15
2273	Preventing autosomal-dominant hearing loss in Bth mice with CRISPR/CasRx-based RNA editing. <i>Signal Transduction and Targeted Therapy</i> , 2022, 7, 79.	7.1	22
2274	Nanoparticlesâ€Mediated CRISPR/Cas Gene Editing Delivery System. <i>ChemMedChem</i> , 2022, 17, .	1.6	6
2276	CRISPR-Cas9 treatment partially restores amyloid-Î² 42/40 in human fibroblasts with the Alzheimerâ€™s disease PSEN1 M146L mutation. <i>Molecular Therapy - Nucleic Acids</i> , 2022, 28, 450-461.	2.3	13
2277	KPT330 improves Cas9 precision genome- and base-editing by selectively regulating mRNA nuclear export. <i>Communications Biology</i> , 2022, 5, 237.	2.0	4
2278	Electroporation-Mediated Delivery of Cas9 Ribonucleoproteins Results in High Levels of Gene Editing in Primary Hepatocytes. <i>CRISPR Journal</i> , 2022, 5, 397-409.	1.4	6
2279	Role of CRISPR/Cas9 in Soybean ( <i>Glycine max</i> L.) Quality Improvement. , 0, , .		2
2280	Recent Advances in the Development of Non-PIKKs Targeting Small Molecule Inhibitors of DNA Double-Strand Break Repair. <i>Frontiers in Oncology</i> , 2022, 12, 850883.	1.3	12
2281	Donor T cells for CAR T cell therapy. <i>Biomarker Research</i> , 2022, 10, 14.	2.8	9
2282	From pharmacogenetics to pharmaco-omics: Milestones and future directions. <i>Human Genetics and Genomics Advances</i> , 2022, 3, 100100.	1.0	14
2283	Synthetic Circular gRNA Mediated Biological Function of CRISPR-(d)Cas9 System. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, 863431.	1.8	2
2284	Controlling CRISPRâ€Cas9 by guide RNA engineering. <i>Wiley Interdisciplinary Reviews RNA</i> , 2023, 14, e1731.	3.2	6
2285	CRISPR-Based Genetic Switches and Other Complex Circuits: Research and Application. <i>Life</i> , 2021, 11, 1255.	1.1	5
2286	Construction of Baculovirus-Inducible CRISPR/Cas9 Antiviral System Targeting BmNPV in <i>Bombyx mori</i> . <i>Viruses</i> , 2022, 14, 59.	1.5	2
2287	You can't keep a bad idea down: Dark history, death, and potential rebirth of eugenics. <i>Anatomical Record</i> , 2022, 305, 902-937.	0.8	8
2288	Endogenous protein tagging in medaka using a simplified CRISPR/Cas9 knock-in approach. <i>ELife</i> , 2021, 10, .	2.8	20
2289	State-of-the-art CRISPR for in vivo and cell-based studies in <i>Drosophila</i> . <i>Trends in Genetics</i> , 2022, 38, 437-453.	2.9	26
2290	Clustered regularly interspaced short palindromic repeats, a glimpseâ€ impacts in molecular biology, trends and highlights. <i>Hormone Molecular Biology and Clinical Investigation</i> , 2022, 43, 105-112.	0.3	0

#	ARTICLE	IF	CITATIONS
2291	The use of base editing technology to characterize single nucleotide variants. <i>Computational and Structural Biotechnology Journal</i> , 2022, 20, 1670-1680.	1.9	4
2292	Oligo targeting for profiling drug resistance mutations in the parasitic trypanosomatids. <i>Nucleic Acids Research</i> , 2022, 50, e79-e79.	6.5	5
2293	A systematic evaluation of data processing and problem formulation of CRISPR off-target site prediction. <i>Briefings in Bioinformatics</i> , 2022, 23, .	3.2	6
2294	Modeling common and rare genetic risk factors of neuropsychiatric disorders in human induced pluripotent stem cells. <i>Schizophrenia Research</i> , 2022, , .	1.1	6
2295	Correction of a CD55 mutation to quantify the efficiency of targeted knock-in via flow cytometry. <i>Molecular Biology Reports</i> , 2022, , 1.	1.0	1
2296	Differences in renal cortex transcriptional profiling of wild-type and novel type B cystinuria model rats. <i>Urolithiasis</i> , 2022, 50, 279.	1.2	0
2297	Rational Engineering of CRISPR-Cas9 Nuclease to Attenuate Position-Dependent Off-Target Effects. <i>CRISPR Journal</i> , 2022, 5, 329-340.	1.4	9
2298	mRNA vaccines: the most recent clinical applications of synthetic mRNA. <i>Archives of Pharmacal Research</i> , 2022, 45, 245-262.	2.7	27
2299	CRISPR/Cas9-Mediated Transgenesis of the Masu Salmon ( <i>Oncorhynchus masou</i> ) <i>elovl2</i> Gene Improves n-3 Fatty Acid Content in Channel Catfish ( <i>Ictalurus punctatus</i> ). <i>Marine Biotechnology</i> , 2022, 24, 513-523.	1.1	13
2300	Structural Basis for Reduced Dynamics of Three Engineered HNH Endonuclease Lys-to-Ala Mutants for the Clustered Regularly Interspaced Short Palindromic Repeat (CRISPR)-Associated 9 (CRISPR/Cas9) Enzyme. <i>Biochemistry</i> , 2022, 61, 785-794.	1.2	12
2344	Developing all-in-one virus-like particles for Cas9 mRNA/single guide RNA co-delivery and aptamer-containing lentiviral vectors for improved gene expression. <i>International Journal of Biological Macromolecules</i> , 2022, 209, 1260-1270.	3.6	9
2345	Regulatory Considerations for Clinical Trial Applications with CRISPR-Based Medicinal Products. <i>CRISPR Journal</i> , 2022, 5, 364-376.	1.4	7
2349	Identification and Validation of CRISPR/Cas9 Off-Target Activity in Hematopoietic Stem and Progenitor Cells. <i>Methods in Molecular Biology</i> , 2022, 2429, 281-306.	0.4	1
2350	CRISPR/Cas genome editing in grapevine: recent advances, challenges and future prospects. <i>Fruit Research</i> , 2022, 2, 1-9.	0.9	10
2352	DNA nanotechnology-empowered finite state machines. <i>Nanoscale Horizons</i> , 2022, 7, 578-588.	4.1	5
2353	Cytokinins: A Genetic Target for Increasing Yield Potential in the CRISPR Era. <i>Frontiers in Genetics</i> , 2022, 13, 883930.	1.1	21
2354	Paired nicking-mediated COL17A1 reframing for junctional epidermolysis bullosa. <i>Molecular Therapy</i> , 2022, 30, 2680-2692.	3.7	11
2355	CRISPR/Cas9-Based Genome Editing and Its Application in <i>Aspergillus</i> Species. <i>Journal of Fungi (Basel)</i> , Tj ETQq1 1 0.784314 rgBT /Overl 1.5 18		

#	ARTICLE	IF	CITATIONS
2356	Trapping of CDC42 C-terminal variants in the Golgi drives pyrin inflammasome hyperactivation. <i>Journal of Experimental Medicine</i> , 2022, 219, .	4.2	18
2358	CRISPR/Cas therapeutic strategies for autosomal dominant disorders. <i>Journal of Clinical Investigation</i> , 2022, 132, .	3.9	8
2359	High-level correction of the sickle mutation is amplified in vivo during erythroid differentiation. <i>IScience</i> , 2022, 25, 104374.	1.9	22
2360	Therapeutic Application of Genome Editing Technologies in Viral Diseases. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5399.	1.8	5
2361	CRISPR-Cas Assisted Shotgun Mutagenesis Method for Evolutionary Genome Engineering. <i>ACS Synthetic Biology</i> , 2022, 11, 1958-1970.	1.9	3
2362	Genetic Kidney Diseases (GKDs) Modeling Using Genome Editing Technologies. <i>Cells</i> , 2022, 11, 1571.	1.8	1
2363	A dual conditional CRISPR-Cas9 system to activate gene editing and reduce off-target effects in human stem cells. <i>Molecular Therapy - Nucleic Acids</i> , 2022, 28, 656-669.	2.3	9
2364	Gene knockout in cellular immunotherapy: Application and limitations. <i>Cancer Letters</i> , 2022, 540, 215736.	3.2	10
2365	Application of CRISPR/Cas9 System in Establishing Large Animal Models. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, .	1.8	8
2366	Cas9 Nickase-Based Genome Editing in <i>Clostridium cellulolyticum</i> . <i>Methods in Molecular Biology</i> , 2022, 2479, 227-243.	0.4	0
2367	Pre-clinical non-viral vectors exploited for in vivo CRISPR/Cas9 gene editing: an overview. <i>Biomaterials Science</i> , 2022, 10, 3410-3432.	2.6	9
2370	mRNA-based therapies: Preclinical and clinical applications. <i>International Review of Cell and Molecular Biology</i> , 2022, , 1-54.	1.6	7
2371	Prospects of viral vector-mediated delivery of sequences encoding anti-HBV designer endonucleases. <i>Gene Therapy</i> , 0, , .	2.3	3
2372	Generation of hypoimmunogenic induced pluripotent stem cells by CRISPR-Cas9 system and detailed evaluation for clinical application. <i>Molecular Therapy - Methods and Clinical Development</i> , 2022, 26, 15-25.	1.8	20
2373	Precise CRISPR-Cas-mediated gene repair with minimal off-target and unintended on-target mutations in human hematopoietic stem cells. <i>Science Advances</i> , 2022, 8, .	4.7	18
2374	A scaling law in CRISPR repertoire sizes arises from the avoidance of autoimmunity. <i>Current Biology</i> , 2022, , .	1.8	5
2375	Hematopoietic Stem Cell Gene-Addition/Editing Therapy in Sickle Cell Disease. <i>Cells</i> , 2022, 11, 1843.	1.8	12
2376	Electroporation of SUMO-His-Cre protein triggers a specific recombinase-mediated cassette exchange in HEK 293T cells. <i>Protein Expression and Purification</i> , 2022, 198, 106128.	0.6	2



#	ARTICLE	IF	CITATIONS
2378	Comprehensive UHPLC- and CE-Based Methods for Engineered Cas9 Characterization. SSRN Electronic Journal, 0, , .	0.4	0
2380	CRISPR-Cas9-Based Technology and Its Relevance to Gene Editing in Parkinsonâ€™s Disease. <i>Pharmaceutics</i> , 2022, 14, 1252.	2.0	18
2381	Review: Precision Medicine Approaches for Genetic Cardiomyopathy: Targeting Phospholamban R14del. <i>Current Heart Failure Reports</i> , 2022, 19, 170-179.	1.3	6
2382	HideRNAs protect against CRISPR-Cas9 re-cutting after successful single base-pair gene editing. <i>Scientific Reports</i> , 2022, 12, .	1.6	0
2383	A chemical CRISPR off switch efficiently controls gene editing. <i>Cell Reports Physical Science</i> , 2022, , 100956.	2.8	2
2385	Genome edited wheat- current advances for the second green revolution. <i>Biotechnology Advances</i> , 2022, 60, 108006.	6.0	19
2386	Cisgenesis in the Era of Genome Editing and Modern Plant Biotechnology. <i>Concepts and Strategies in Plant Sciences</i> , 2022, , 257-279.	0.6	2
2387	The importance of DNAPKcs for blunt DNA end joining is magnified when XLF is weakened. <i>Nature Communications</i> , 2022, 13, .	5.8	9
2388	CRISPR/Cas- and Topical RNAi-Based Technologies for Crop Management and Improvement: Reviewing the Risk Assessment and Challenges Towards a More Sustainable Agriculture. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	2.0	7
2389	The Progression of Treatment for Refractory Hypercholesterolemia: Focus on the Prospect of Gene Therapy. <i>Frontiers in Genetics</i> , 0, 13, .	1.1	2
2390	Targeted Nanocarrier Delivery of RNA Therapeutics to Control HIV Infection. <i>Pharmaceutics</i> , 2022, 14, 1352.	2.0	1
2391	Development of the CRISPR-Cas9 System for the Marine-Derived Fungi <i>Spiromastix</i> sp. SCSIO F190 and <i>Aspergillus</i> sp. SCSIO SX7S7. <i>Journal of Fungi (Basel, Switzerland)</i> , 2022, 8, 715.	1.5	3
2392	DNA base editing in nuclear and organellar genomes. <i>Trends in Genetics</i> , 2022, 38, 1147-1169.	2.9	14
2393	Application of Gene Editing Technology in Resistance Breeding of Livestock. <i>Life</i> , 2022, 12, 1070.	1.1	8
2394	Genome centric engineering using ZFNs, TALENs and CRISPR-Cas9 systems for trait improvement and disease control in Animals. <i>Veterinary Research Communications</i> , 2023, 47, 1-16.	0.6	14
2395	Transcriptional Activation of Biosynthetic Gene Clusters in Filamentous Fungi. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	2.0	14
2396	Progress of delivery methods for CRISPR-Cas9. <i>Expert Opinion on Drug Delivery</i> , 2022, 19, 913-926.	2.4	14
2397	Engineering of optogenetic devices for biomedical applications in mammalian synthetic biology. <i>Engineering Biology</i> , 2022, 6, 35-49.	0.8	1

#	ARTICLE	IF	CITATIONS
2398	Massively targeted evaluation of therapeutic CRISPR off-targets in cells. <i>Nature Communications</i> , 2022, 13, .	5.8	11
2399	Recent Advances in Improving Gene-Editing Specificity through CRISPR-Cas9 Nuclease Engineering. <i>Cells</i> , 2022, 11, 2186.	1.8	25
2400	Correction of monomeric enhanced green fluorescent protein (mEGFP) gene by short 5'-tailed duplexes. <i>Journal of Bioscience and Bioengineering</i> , 2022, 134, 175-181.	1.1	1
2401	Cytoplasmic Injection of Zygotes to Genome Edit Naturally Occurring Sequence Variants Into Bovine Embryos. <i>Frontiers in Genetics</i> , 0, 13, .	1.1	1
2402	CRISPR/Cas9-Mediated Efficient Targeted Mutagenesis in Sesame ( <i>Sesamum indicum</i> L.). <i>Frontiers in Plant Science</i> , 0, 13, .	1.7	7
2403	Current landscape of gene editing technology in biomedicine: Applications, advantages, challenges, and perspectives. <i>MedComm</i> , 2022, 3, .	3.1	2
2404	Biallelic and gene-wide genomic substitution for endogenous intron and retroelement mutagenesis in human cells. <i>Nature Communications</i> , 2022, 13, .	5.8	8
2405	Implementing accelerated dynamics to unravel the effects of high-fidelity Cas9 mutants on target DNA and guide RNA hybrid stability. <i>Journal of Biomolecular Structure and Dynamics</i> , 0, , 1-13.	2.0	0
2406	Modulating CRISPR-Cas Genome Editing Using Guide-Complementary DNA Oligonucleotides. <i>CRISPR Journal</i> , 2022, 5, 571-585.	1.4	0
2407	RISC-y Business: Limitations of Short Hairpin RNA-Mediated Gene Silencing in the Brain and a Discussion of CRISPR/Cas-Based Alternatives. <i>Frontiers in Molecular Neuroscience</i> , 0, 15, .	1.4	10
2408	<scp>CRISPR</scp> applications for Duchenne muscular dystrophy: From animal models to potential therapies. <i>WIREs Mechanisms of Disease</i> , 2023, 15, .	1.5	6
2409	Genome editing for primary immunodeficiencies: A therapeutic perspective on Wiskott-Aldrich syndrome. <i>Frontiers in Immunology</i> , 0, 13, .	2.2	6
2410	Resensitization of Fosfomycin-Resistant <i>Escherichia coli</i> Using the CRISPR System. <i>International Journal of Molecular Sciences</i> , 2022, 23, 9175.	1.8	3
2411	Cytosine base editing systems with minimized off-target effect and molecular size. <i>Nature Communications</i> , 2022, 13, .	5.8	19
2412	New Advances in Using Virus-like Particles and Related Technologies for Eukaryotic Genome Editing Delivery. <i>International Journal of Molecular Sciences</i> , 2022, 23, 8750.	1.8	5
2413	Stimuli-responsive nanoformulations for CRISPR-Cas9 genome editing. <i>Journal of Nanobiotechnology</i> , 2022, 20, .	4.2	13
2414	A Machine Learning Approach to Identify the Importance of Novel Features for CRISPR/Cas9 Activity Prediction. <i>Biomolecules</i> , 2022, 12, 1123.	1.8	2
2415	Precise somatic genome editing for treatment of inborn errors of immunity. <i>Frontiers in Immunology</i> , 0, 13, .	2.2	1

#	ARTICLE	IF	CITATIONS
2416	Comprehensive UHPLC- and CE-based methods for engineered Cas9 characterization. <i>Talanta</i> , 2023, 252, 123780.	2.9	1
2417	CRISPRthripsis: The Risk of CRISPR/Cas9-induced Chromothripsis in Gene Therapy. <i>Stem Cells Translational Medicine</i> , 2022, 11, 1003-1009.	1.6	17
2419	Therapeutic Applications of the CRISPR-Cas System. <i>Bioengineering</i> , 2022, 9, 477.	1.6	3
2420	New Directions for Epigenetics: Application of Engineered DNA-binding Molecules to Locus-specific Epigenetic Research. , 2023, , 843-868.		0
2421	Genome editing in cancer: Challenges and potential opportunities. <i>Bioactive Materials</i> , 2023, 21, 394-402.	8.6	3
2422	CRISPR/Cas9 On- and Off-Target Activity Using Correlative Force and Fluorescence Single-Molecule Microscopy. <i>Methods in Molecular Biology</i> , 2022, , 349-378.	0.4	0
2423	Negative DNA Supercoiling Induces Genome Wide Cas9 Off-Target Activity. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
2424	Synthetic mRNA Gene Therapies and Hepatotropic Non-viral Vectors for the Treatment of Chronic HBV Infections. <i>RNA Technologies</i> , 2022, , 157-179.	0.2	0
2425	The Use of CRISPR Technologies for Crop Improvement in Maize. , 2022, , 271-294.		2
2426	Animal genomics and biotechnologies to improve meat quality. , 2022, , .		0
2427	In Silico Tools and Approach of CRISPR Application in Agriculture. , 2022, , 177-189.		1
2428	Dynamic observations of CRISPR-Cas target recognition and cleavage heterogeneities. <i>Nanophotonics</i> , 2022, 11, 4419-4425.	2.9	6
2430	CRISPR/Cas9 system: a reliable and facile genome editing tool in modern biology. <i>Molecular Biology Reports</i> , 2022, 49, 12133-12150.	1.0	9
2432	Fitness effects of CRISPR endonucleases in <i>Drosophila melanogaster</i> populations. <i>ELife</i> , 0, 11, .	2.8	7
2433	Targeting Krebs-cycle-deficient renal cell carcinoma with Poly ADP-ribose polymerase inhibitors and low-dose alkylating chemotherapy. <i>Oncotarget</i> , 2022, 13, 1054-1067.	0.8	5
2434	The Concept of the Modern Molecular Clock and Experience in Estimating Divergence Times of Eulipotyphla and Rodentia. <i>Biology Bulletin Reviews</i> , 2022, 12, 459-482.	0.3	0
2435	Quantification of Genome Editing and Transcriptional Control Capabilities Reveals Hierarchies among Diverse CRISPR/Cas Systems in Human Cells. <i>ACS Synthetic Biology</i> , 2022, 11, 3239-3250.	1.9	9
2436	Double-strand break toxicity is chromatin context independent. <i>Nucleic Acids Research</i> , 2022, 50, 9930-9947.	6.5	8

#	ARTICLE	IF	CITATIONS
2437	Gene editing monkeys: Retrospect and outlook. <i>Frontiers in Cell and Developmental Biology</i> , 0, 10, .	1.8	1
2438	A comprehensive overview of CRISPR/Cas 9 technology and application thereof in drug discovery. <i>Journal of Cellular Biochemistry</i> , 2022, 123, 1674-1698.	1.2	7
2439	A Century-long Journey From the Discovery of Insulin to the Implantation of Stem Cellâ€derived Islets. <i>Endocrine Reviews</i> , 2023, 44, 222-253.	8.9	13
2440	Immune Responses to Gene Editing by Viral and Non-Viral Delivery Vectors Used in Retinal Gene Therapy. <i>Pharmaceutics</i> , 2022, 14, 1973.	2.0	13
2441	Characteristics of BAY 2599023 in the Current Treatment Landscape of Hemophilia A Gene Therapy. <i>Current Gene Therapy</i> , 2022, 22, .	0.9	0
2442	Multiplexed functional genomic assays to decipher the noncoding genome. <i>Human Molecular Genetics</i> , 2022, 31, R84-R96.	1.4	4
2443	Deciphering the QR Code of the CRISPR-Cas9 System: Synergy between Gln768 (Q) and Arg976 (R). <i>ACS Physical Chemistry Au</i> , 2022, 2, 496-505.	1.9	1
2444	Advances in CRISPR/Cas9. <i>BioMed Research International</i> , 2022, 2022, 1-13.	0.9	14
2445	CRISPR-Based Therapeutic Gene Editing for Duchenne Muscular Dystrophy: Advances, Challenges and Perspectives. <i>Cells</i> , 2022, 11, 2964.	1.8	8
2446	CRISPR/Cas9 in the era of nanomedicine and synthetic biology. <i>Drug Discovery Today</i> , 2023, 28, 103375.	3.2	2
2447	In vivo correction of cystic fibrosis mediated by PNA nanoparticles. <i>Science Advances</i> , 2022, 8, .	4.7	16
2448	Nanoparticle-based CRISPR/Cas Delivery: An Emerging Tactic for Cancer Therapy. <i>Current Medicinal Chemistry</i> , 2023, 30, 3562-3581.	1.2	1
2449	Turning Tables for CRISPR/Cas9 Editing System: From Scratch to Advanced Delivery Platforms. , 2022, , 1-27.		1
2450	Polymer-Mediated Delivery of CRISPR-Cas9 Genome-Editing Therapeutics for CNS Disease. , 2022, , 229-258.		0
2451	Specificity of oligonucleotide gene therapy (OGT) agents. <i>Theranostics</i> , 2022, 12, 7132-7157.	4.6	14
2452	Wildtype heterogeneity contributes to clonal variability in genome edited cells. <i>Scientific Reports</i> , 2022, 12, .	1.6	14
2453	First-in-human inÂvivo genome editing via AAV-zinc-finger nucleases for mucopolysaccharidosis I/II and hemophilia B. <i>Molecular Therapy</i> , 2022, 30, 3587-3600.	3.7	16
2454	Frankenstein Cas9: engineering improved gene editing systems. <i>Biochemical Society Transactions</i> , 2022, 50, 1505-1516.	1.6	2

#	ARTICLE	IF	CITATIONS
2455	In vivo application of base and prime editing to treat inherited retinal diseases. <i>Progress in Retinal and Eye Research</i> , 2023, 94, 101132.	7.3	3
2456	CEDA: integrating gene expression data with CRISPR-pooled screen data identifies essential genes with higher expression. <i>Bioinformatics</i> , 2022, 38, 5245-5252.	1.8	1
2457	CRISPRon/off: CRISPR/Cas9 on- and off-target gRNA design. <i>Bioinformatics</i> , 2022, 38, 5437-5439.	1.8	9
2458	CRISPR Gene Editing of Hematopoietic Stem and Progenitor Cells. <i>Methods in Molecular Biology</i> , 2023, , 39-62.	0.4	1
2459	Gene therapy for cystic fibrosis: Challenges and prospects. <i>Frontiers in Pharmacology</i> , 0, 13, .	1.6	12
2460	Using human genetics to improve safety assessment of therapeutics. <i>Nature Reviews Drug Discovery</i> , 2023, 22, 145-162.	21.5	20
2462	A comprehensive Bioconductor ecosystem for the design of CRISPR guide RNAs across nucleases and technologies. <i>Nature Communications</i> , 2022, 13, .	5.8	10
2463	In vivo delivery of CRISPR-Cas9 genome editing components for therapeutic applications. <i>Biomaterials</i> , 2022, 291, 121876.	5.7	13
2464	The evaluation of active transcriptional repressor domain for CRISPRi in plants. <i>Gene</i> , 2023, 851, 146967.	1.0	5
2465	Gene editing hPSCs for modeling neurological disorders. , 2023, , 289-311.		0
2466	Cnpy3 mice reveal neuronal expression of Cnpy3 in the brain. <i>Journal of Neuroscience Methods</i> , 2023, 383, 109730.	1.3	1
2467	Genetic scissors•CRISPR/Cas9 genome editing cutting-edge biocarrier technology for bone and cartilage repair. <i>Bioactive Materials</i> , 2023, 22, 254-273.	8.6	7
2468	Identification and Analysis of Small Molecule Inhibitors of CRISPR-Cas9 in Human Cells. <i>Cells</i> , 2022, 11, 3574.	1.8	1
2469	CRISPR nuclease off-target activity and mitigation strategies. <i>Frontiers in Genome Editing</i> , 0, 4, .	2.7	14
2470	CRISPR-Cas9 Technology for the Creation of Biological Avatars Capable of Modeling and Treating Pathologies: From Discovery to the Latest Improvements. <i>Cells</i> , 2022, 11, 3615.	1.8	4
2471	Natural Nucleoside Modifications in Guide RNAs Can Modulate the Activity of the CRISPR-Cas9 System <i>In Vitro</i>. <i>CRISPR Journal</i> , 2022, 5, 799-812.	1.4	6
2472	Lipids and lipid derivatives for delivery of the CRISPR/Cas9 system. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 78, 103948.	1.4	3
2473	A general approach to identify cell-permeable and synthetic anti-CRISPR small molecules. <i>Nature Cell Biology</i> , 2022, 24, 1766-1775.	4.6	5

#	ARTICLE	IF	CITATIONS
2474	Clinical trials and promising preclinical applications of CRISPR/Cas gene editing. <i>Life Sciences</i> , 2023, 312, 121204.	2.0	4
2475	Preparation of NanoMEDIC Extracellular Vesicles to Deliver CRISPR-Cas9 Ribonucleoproteins for Genomic Exon Skipping. <i>Methods in Molecular Biology</i> , 2023, , 427-453.	0.4	1
2476	Protocol to measure end resection intermediates at sequence-specific DNA double-strand breaks by quantitative polymerase chain reaction using ER-AsiSI U2OS cells. <i>STAR Protocols</i> , 2022, 3, 101861.	0.5	2
2477	Fermented plant-based beverage: kombucha. , 2023, , 215-231.		0
2478	Label free optical biosensor for insulin using naturally existing chromene mimic synthesized receptors: A greener approach. <i>Analytica Chimica Acta</i> , 2023, 1239, 340692.	2.6	5
2479	CRISPR/Cas9 as a molecular tool that extends beyond gene editing for ovarian cancer management. <i>Critical Reviews in Oncogenesis</i> , 2022, , .	0.2	0
2480	Improvements in the genetic editing technologies: CRISPR-Cas and beyond. <i>Gene</i> , 2023, 852, 147064.	1.0	1
2481	The methylation inhibitor 3DZNep promotes HDR pathway choice during CRISPR-Cas9 genome editing. <i>Gene and Genome Editing</i> , 2023, 5, 100023.	1.3	0
2482	Suppressing gain-of-function proteins via CRISPR/Cas9 system in SCA1 cells. <i>Scientific Reports</i> , 2022, 12, .	1.6	2
2483	Description of CRISPR-Cas9 development and its prospects in human papillomavirus-driven cancer treatment. <i>Frontiers in Immunology</i> , 0, 13, .	2.2	3
2485	A review on bioinformatics advances in CRISPR-Cas technology. <i>Journal of Plant Biochemistry and Biotechnology</i> , 2023, 32, 791-807.	0.9	1
2486	Multiplexed engineering and precision gene editing in cellular immunotherapy. <i>Frontiers in Immunology</i> , 0, 13, .	2.2	4
2487	CRISPR-Based Tools for Fighting Rare Diseases. <i>Life</i> , 2022, 12, 1968.	1.1	2
2488	Potential therapeutic strategies for photoreceptor degeneration: the path to restore vision. <i>Journal of Translational Medicine</i> , 2022, 20, .	1.8	5
2489	Massively Parallel CRISPR-Based Genetic Perturbation Screening at Single-Cell Resolution. <i>Advanced Science</i> , 2023, 10, .	5.6	6
2490	Genome Editing and Pathological Cardiac Hypertrophy. <i>Advances in Experimental Medicine and Biology</i> , 2023, , 87-101.	0.8	0
2491	Spontaneous immortalization of chicken fibroblasts generates stable, high-yield cell lines for serum-free production of cultured meat. <i>Nature Food</i> , 2023, 4, 35-50.	6.2	33
2492	Induced Pluripotent Stem Cells and Genome-Editing Tools in Determining Gene Function and Therapy for Inherited Retinal Disorders. <i>International Journal of Molecular Sciences</i> , 2022, 23, 15276.	1.8	1

#	ARTICLE	IF	CITATIONS
2493	Genome Editing and Diabetic Cardiomyopathy. <i>Advances in Experimental Medicine and Biology</i> , 2023, , 103-114.	0.8	0
2495	3â€²Nucleotidase/nuclease is required for <i>Leishmania infantum</i> clinical isolate susceptibility to miltefosine. <i>EBioMedicine</i> , 2022, 86, 104378.	2.7	7
2496	Synergy of nanocarriers with CRISPR-Cas9 in an emerging technology platform for biomedical appliances: Current insights and perspectives. <i>Materials and Design</i> , 2022, 224, 111415.	3.3	9
2497	A quantitative model for the dynamics of target recognition and off-target rejection by the CRISPR-Cas Cascade complex. <i>Nature Communications</i> , 2022, 13, .	5.8	6
2498	Comprehensive computational analysis of epigenetic descriptors affecting CRISPR-Cas9 off-target activity. <i>BMC Genomics</i> , 2022, 23, .	1.2	4
2499	A Tet-Inducible CRISPR Platform for High-Fidelity Editing of Human Pluripotent Stem Cells. <i>Genes</i> , 2022, 13, 2363.	1.0	2
2500	Adenine base editorâ€œ mediated correction of the common and severe IVS1-110 (G&gt;A) Î²-thalassemia mutation. <i>Blood</i> , 2023, 141, 1169-1179.	0.6	11
2501	Cardiac xenotransplantation: from concept to clinic. <i>Cardiovascular Research</i> , 2023, 118, 3499-3516.	1.8	14
2502	Gene therapy review: Duchenne muscular dystrophy case study. <i>Revue Neurologique</i> , 2023, 179, 90-105.	0.6	1
2503	Genetic engineering and genome editing in plants, animals and humans: Facts and myths. <i>Gene</i> , 2023, 856, 147141.	1.0	2
2504	CRISPR-CAS UYGULAMALARI, POTANSÄ°YEL RÄ°SKLER VE YASAL DÄœZENLEMELER. <i>Helal Ve Etik AraÅŸtÄ±rmalar Dergisi</i> , 0, , .	0.2	0
2506	Doxycycline-dependent Cas9-expressing pig resources for conditional in vivo gene nullification and activation. <i>Genome Biology</i> , 2023, 24, .	3.8	1
2507	Web-Based Computational Tools for Base Editors. <i>Methods in Molecular Biology</i> , 2023, , 13-22.	0.4	1
2508	A CRISPR-Cas Cure for HIV/AIDS. <i>International Journal of Molecular Sciences</i> , 2023, 24, 1563.	1.8	7
2509	A nonsensory odorantâ€œ binding protein plays an important role in the larval development and adult mating of <i>Spodoptera frugiperda</i> . <i>Insect Science</i> , 2023, 30, 1325-1336.	1.5	5
2510	CRISPR-Cas9 base editors and their current role in human therapeutics. <i>Cytotherapy</i> , 2023, 25, 270-276.	0.3	4
2511	CRISPR-Cas9 recognition of enzymatically synthesized base-modified nucleic acids. <i>Nucleic Acids Research</i> , 2023, 51, 1501-1511.	6.5	5
2512	Gene Therapy in ALS and SMA: Advances, Challenges and Perspectives. <i>International Journal of Molecular Sciences</i> , 2023, 24, 1130.	1.8	10

#	ARTICLE	IF	CITATIONS
2513	Application of CRISPR-Cas9 for Functional Analysis in <i>A. mexicanus</i> . <i>Neuromethods</i> , 2023, , 193-220.	0.2	0
2514	Genome-Editing Strategies for Enhanced Stress Tolerance in Medicinal Plants. , 2023, , 417-442.		0
2515	Molecular and therapeutic effect of CRISPR in treating cancer. , 2023, 40, .		2
2516	CRISPR/Cas9 therapeutics: progress and prospects. <i>Signal Transduction and Targeted Therapy</i> , 2023, 8, .	7.1	73
2517	The electronic structure of genome editors from the first principles. <i>Electronic Structure</i> , 2023, 5, 014003.	1.0	1
2518	Easy efficient HDR-based targeted knock-in in <i>Saccharomyces cerevisiae</i> genome using CRISPR-Cas9 system. <i>Bioengineered</i> , 2022, 13, 14857-14871.	1.4	2
2519	The chaperone protein p32 stabilizes HIV-1 Tat and strengthens the p-TEFb/RNAPII/TAR complex promoting HIV transcription elongation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2023, 120, .	3.3	3
2520	Insights into the Mechanism of CRISPR/Cas9-Based Genome Editing from Molecular Dynamics Simulations. <i>ACS Omega</i> , 2023, 8, 1817-1837.	1.6	2
2521	Review of CRISPR/Cas Systems on Detection of Nucleotide Sequences. <i>Foods</i> , 2023, 12, 477.	1.9	3
2522	Implications of CRISPR-Cas9 Genome Editing Methods in Atherosclerotic Cardiovascular Diseases. <i>Current Problems in Cardiology</i> , 2023, 48, 101603.	1.1	1
2524	CRISPR-Cas13 in malaria parasite: Diagnosis and prospective gene function identification. <i>Frontiers in Microbiology</i> , 0, 14, .	1.5	2
2525	CRISPR-Cas9-Based Functional Analysis in Amphibians: <i>Xenopus laevis</i> , <i>Xenopus tropicalis</i> , and <i>Pleurodeles waltl</i> . <i>Methods in Molecular Biology</i> , 2023, , 341-357.	0.4	0
2526	How data science and AI-based technologies impact genomics. <i>Singapore Medical Journal</i> , 2023, 64, 59.	0.3	10
2527	Elevated expression of exogenous RAD51 enhances the CRISPR/Cas9-mediated genome editing efficiency. <i>BMB Reports</i> , 2023, 56, 102-107.	1.1	2
2528	Engineered Extracellular VesicleâDelivered CRISPR/CasRx as a Novel RNA Editing Tool. <i>Advanced Science</i> , 2023, 10, .	5.6	6
2529	Roles of innovative genome editing technologies in stem cell engineering, rheumatic diseases and other joint/bone diseases. , 2023, , 53-77.		0
2530	Use of CRISPR-based screens to identify mechanisms of chemotherapy resistance. <i>Cancer Gene Therapy</i> , 2023, 30, 1043-1050.	2.2	6
2531	Transcription activator-like effector nuclease-mediated deletion safely eliminates the major egg allergen ovomucoid in chickens. <i>Food and Chemical Toxicology</i> , 2023, 175, 113703.	1.8	3



#	ARTICLE	IF	CITATIONS
2532	The impact of nucleosome structure on CRISPR/Cas9 fidelity. <i>Nucleic Acids Research</i> , 2023, 51, 2333-2344.	6.5	6
2534	The PROTECTOR strategy employs dCas orthologs to sterically shield off-target sites from CRISPR/Cas activity. <i>Scientific Reports</i> , 2023, 13, .	1.6	2
2535	Comparative analysis of CRISPR off-target discovery tools following ex vivo editing of CD34+ hematopoietic stem and progenitor cells. <i>Molecular Therapy</i> , 2023, 31, 1074-1087.	3.7	4
2536	Delivery challenges for CRISPR-Cas9 genome editing for Duchenne muscular dystrophy. <i>Biophysics Reviews</i> , 2023, 4, .	1.0	2
2537	Increasing the Capture Rate of Circulating Tumor DNA in Unaltered Plasma Using Passive Microfluidic Mixer Flow Cells. <i>Langmuir</i> , 2023, 39, 3225-3234.	1.6	1
2539	Biomolecular condensates: Formation mechanisms, biological functions, and therapeutic targets. <i>MedComm</i> , 2023, 4, .	3.1	3
2540	MicroRNAs emerging coordinate with placental mammals alter pathways in endometrial epithelia important for endometrial function. <i>IScience</i> , 2023, 26, 106339.	1.9	4
2541	The history, use, and challenges of therapeutic somatic cell and germline gene editing. <i>Fertility and Sterility</i> , 2023, 120, 528-538.	0.5	0
2542	Identification of exceptionally potent adenosine deaminases RNA editors from high body temperature organisms. <i>PLoS Genetics</i> , 2023, 19, e1010661.	1.5	6
2543	Induced Pluripotent Stem Cells in the Era of Precise Genome Editing. <i>Current Stem Cell Research and Therapy</i> , 2024, 19, 307-315.	0.6	0
2544	Off-target effects in CRISPR/Cas9 gene editing. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 11, .	2.0	53
2545	Shaping the future from the small scale: dry powder inhalation of CRISPR-Cas9 lipid nanoparticles for the treatment of lung diseases. <i>Expert Opinion on Drug Delivery</i> , 2023, 20, 471-487.	2.4	4
2546	Prime editing in hematopoietic stem cells-From ex vivo to in vivo CRISPR-based treatment of blood disorders. <i>Frontiers in Genome Editing</i> , 0, 5, .	2.7	2
2548	Prospects for using CRISPR-Cas9 system in the treatment of human viral diseases. <i>Acta Biomedica Scientifica</i> , 2023, 8, 40-50.	0.1	0
2549	Recent Updates on the Management of Human Papillomavirus-related Cancers. <i>Current Cancer Therapy Reviews</i> , 2023, 19, .	0.2	0
2550	Split-tracrRNA as an efficient tracrRNA system with an improved potential of scalability. <i>Biomaterials Science</i> , 0, , .	2.6	0
2554	Progress of CRISPR-Cas9 in Treatment of $\beta^2$ -thalassemia. , 0, 36, 115-118.		0
2555	Gene drive system based on CRISPR-Cas9 in mosquito control. , 0, 36, 119-123.		0

#	ARTICLE	IF	CITATIONS
2556	The ligninâ€degrading abilities of <i>Gelatoporia subvermispora gat1</i> and <i>pex1</i> mutants generated via CRISPR/Cas9. <i>Environmental Microbiology</i> , 2023, 25, 1393-1408.	1.8	5
2557	Stem cell therapy combined with controlled release of growth factors for the treatment of sphincter dysfunction. <i>Cell and Bioscience</i> , 2023, 13, .	2.1	2
2558	Current Bioinformatics Tools to Optimize CRISPR/Cas9 Experiments to Reduce Off-Target Effects. <i>International Journal of Molecular Sciences</i> , 2023, 24, 6261.	1.8	6
2559	Strategies and Methods for Improving the Efficiency of CRISPR/Cas9 Gene Editing in Plant Molecular Breeding. <i>Plants</i> , 2023, 12, 1478.	1.6	4
2560	Recent advances in the delivery and applications of nonviral CRISPR/Cas9 gene editing. <i>Drug Delivery and Translational Research</i> , 2023, 13, 1500-1519.	3.0	7
2561	Outlook on the Security and Potential Improvements of CRISPRâ€Cas9. <i>Molecular Biotechnology</i> , 2023, 65, 1729-1736.	1.3	3
2562	Review: Recent Applications of Gene Editing in Fish Species and Aquatic Medicine. <i>Animals</i> , 2023, 13, 1250.	1.0	3
2563	An overview of genome engineering in plants, including its scope, technologies, progress and grand challenges. <i>Functional and Integrative Genomics</i> , 2023, 23, .	1.4	14
2566	Animal Transgenesis and Cloning: Combined Development and Future Perspectives. <i>Methods in Molecular Biology</i> , 2023, , 121-149.	0.4	1
2567	In the business of base editors: Evolution from bench to bedside. <i>PLoS Biology</i> , 2023, 21, e3002071.	2.6	10
2569	Gene Editing as the Future of Cardiac Amyloidosis Therapeutics. <i>Current Problems in Cardiology</i> , 2023, 48, 101741.	1.1	2
2572	Clonally Selected Lines After CRISPR-Cas Editing Are Not Isogenic. <i>CRISPR Journal</i> , 2023, 6, 176-182.	1.4	2
2573	Application of a Spacer-nick Gene-targeting Approach to Repair Disease-causing Mutations with Increased Safety. <i>Bio-protocol</i> , 2023, 13, .	0.2	0
2574	Vector enabled CRISPR gene editing â€ A revolutionary strategy for targeting the diversity of brain pathologies. <i>Coordination Chemistry Reviews</i> , 2023, 487, 215172.	9.5	0
2575	Transient and tunable CRISPRa regulation of APOBEC/AID genes for targeting hepatitis B virus. <i>Molecular Therapy - Nucleic Acids</i> , 2023, 32, 478-493.	2.3	2
2576	Precision medicine: Overview and challenges to clinical implementation. , 2023, , 513-529.		0
2577	Application of new technologies in embryos: From gene editing to synthetic embryos. , 2023, , 853-886.		0
2579	Discovery of Diverse CRISPR-Cas Systems and Expansion of the Genome Engineering Toolbox. <i>Biochemistry</i> , 2023, 62, 3465-3487.	1.2	13

#	ARTICLE	IF	CITATIONS
2599	When push comes to shove - RNA polymerase and DNA-bound protein roadblocks. <i>Biophysical Reviews</i> , 2023, 15, 355-366.	1.5	3
2610	Genome-Wide CRISPR Screening for the Identification of Therapy Resistance-Associated Genes in Urothelial Carcinoma. <i>Methods in Molecular Biology</i> , 2023, , 155-165.	0.4	0
2633	Targeted Mutagenesis of Mycobacterium Strains by Homologous Recombination. <i>Methods in Molecular Biology</i> , 2023, , 85-96.	0.4	0
2700	Identification and evaluation of machine learning classification algorithm to predict the efficacy of gRNA in CRISPR/Cas9 genome editing system using WEKA. <i>AIP Conference Proceedings</i> , 2023, , .	0.3	0
2703	Genome-Editing â€“ Gentherapie 2.0 oder nur eine Wunschvorstellung?. , 2023, , 103-120.		0
2704	Plantâ€™Pathogen Interactions and Global Food Security. , 2023, , 11-52.		0
2717	CRISPR-Cas9: chronology and evolution. , 2024, , 3-21.		0
2735	Genome Editing and Transgenes in Pigs. , 2024, , 295-306.		0
2747	CRISPR-Cas9 genome editing of crops: Food and nutritional security. , 2024, , 161-190.		0
2748	Genome Editing Tool CRISPR-Cas: Legal and Ethical Considerations for Life Science. , 2024, , 839-864.		0
2749	Different Classes of CRISPR-Cas Systems. , 2024, , 73-94.		0
2750	Plant Genome Editing Technologies: An Updated Overview. , 2024, , 1-23.		0
2751	CRISPR vegetables: Challenges and opportunities. , 2024, , 247-264.		0
2752	CRISPR applications in medicinal and aromatic plants. , 2024, , 365-380.		0
2753	Biosafety and biosecurity consideration in CRISPR-Cas. , 2024, , 507-520.		0