Enhancing homology-directed genome editing by cataly CRISPR-Cas9 using asymmetric donor DNA

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#	Article	IF	Citations
1	Engineering of temperature- and light-switchable Cas9 variants. Nucleic Acids Research, 2013, 44, 10003-10014.	6.5	95
2	Plant Genome Editing and its Applications in Cereals. , 2016, , .		4
3	Protocols.io: Virtual Communities for Protocol Development and Discussion. PLoS Biology, 2016, 14, e1002538.	2.6	45
4	The Power of CRISPR-Cas9-Induced Genome Editing to Speed Up Plant Breeding. International Journal of Genomics, 2016, 2016, 1-10.	0.8	40
5	An Overview of CRISPR-Based Tools and Their Improvements: New Opportunities in Understanding Plantâ€“Pathogen Interactions for Better Crop Protection. Frontiers in Plant Science, 2016, 7, 765.	1.7	49
6	CRISPR/Cas9: a breakthrough in generating mouse models for endocrinologists. Journal of Molecular Endocrinology, 2016, 57, R81-R92.	1.1	11
7	To CRISPR and beyond: the evolution of genome editing in stem cells. Regenerative Medicine, 2016, 11, 801-816.	0.8	13
8	Efficient Generation of Orthologous Point Mutations in Pigs via CRISPR-assisted ssODN-mediated Homology-directed Repair. Molecular Therapy - Nucleic Acids, 2016, 5, e396.	2.3	36
9	Biasing genome-editing events toward precise length deletions with an RNA-guided TevCas9 dual nuclease. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14988-14993.	3.3	39
10	Two Distinct Pathways Support Gene Correction by Single-Stranded Donors at DNA Nicks. Cell Reports, 2016, 17, 1872-1881.	2.9	45
11	In vivo gene therapy potentials of CRISPR-Cas9. Gene Therapy, 2016, 23, 557-559.	2.3	21
12	Cas9 and the importance of asymmetry. Nature Methods, 2016, 13, 287-287.	9.0	0
13	mCAL: A New Approach for Versatile Multiplex Action of Cas9 Using One sgRNA and Loci Flanked by a Programmed Target Sequence. G3: Genes, Genomes, Genetics, 2016, 6, 2147-2156.	0.8	23
14	The democratization of gene editing: Insights from site-specific cleavage and double-strand break repair. DNA Repair, 2016, 44, 6-16.	1.3	181
15	A CRISPR Path to Engineering New Genetic Mouse Models for Cardiovascular Research. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 1058-1075.	1.1	44
16	Synthetic biology â€" application-oriented cell engineering. Current Opinion in Biotechnology, 2016, 40, 139-148.	3.3	34
17	Customizing the genome as therapy for the Î²-hemoglobinopathies. Blood, 2016, 127, 2536-2545.	0.6	48
18	Applications of CRISPR technologies in research and beyond. Nature Biotechnology, 2016, 34, 933-941.	9.4	735

#	Article	IF	Citations
19	Cpf1 nucleases demonstrate robust activity to induce DNA modification by exploiting homology directed repair pathways in mammalian cells. Biology Direct, 2016, 11, 46.	1.9	65
20	Genetic medicines for CF: Hype versus reality. Pediatric Pulmonology, 2016, 51, S5-S17.	1.0	41
21	Progress in Gene Editing Transgenesis Genome Manipulation in Mosquitoes. Advances in Insect Physiology, 2016, 51, 1-35.	1.1	0
22	Torsional Constraints of DNA Substrates Impact Cas9 Cleavage. Journal of the American Chemical Society, 2016, 138, 13842-13845.	6.6	34
23	Methods for Optimizing CRISPR-Cas9 Genome Editing Specificity. Molecular Cell, 2016, 63, 355-370.	4.5	247
25	At the Conflux of Human Genome Engineering and Induced Pluripotency. , 2016, , 45-64.		1
26	CRISPR-Cas9 for in vivo Gene Therapy: Promise and Hurdles. Molecular Therapy - Nucleic Acids, 2016, 5, e349.	2.3	120
27	CRISPR-Cas9 nuclear dynamics and target recognition in living cells. Journal of Cell Biology, 2016, 214, 529-537.	2.3	165
28	Immunogenomic engineering of a plug-and-(dis)play hybridoma platform. Nature Communications, 2016, 7, 12535.	5.8	50
29	Engineering Large Animal Species to Model Human Diseases. Current Protocols in Human Genetics, 2016, 90, 15.9.1-15.9.14.	3.5	6
30	The present and future of genome editing in cancer research. Human Genetics, 2016, 135, 1083-1092.	1.8	13
31	CRISPR-Barcoding for Intratumor Genetic Heterogeneity Modeling and Functional Analysis of Oncogenic Driver Mutations. Molecular Cell, 2016, 63, 526-538.	4.5	58
32	Desktop Genetics. Personalized Medicine, 2016, 13, 517-521.	0.8	21
33	The new editorâ€"targeted genome engineering in the absence of homology-directed repair. Cell Death Discovery, 2016, 2, 16042.	2.0	0
34	Systematic quantification of HDR and NHEJ reveals effects of locus, nuclease, and cell type on genome-editing. Scientific Reports, 2016, 6, 23549.	1.6	202
35	Selection-free genome editing of the sickle mutation in human adult hematopoietic stem/progenitor cells. Science Translational Medicine, 2016, 8, 360ra134.	5.8	386
36	Highly Efficient Genome Editing of Murine and Human Hematopoietic Progenitor Cells by CRISPR/Cas9. Cell Reports, 2016, 17, 1453-1461.	2.9	223
37	Non-homologous DNA increases gene disruption efficiency by altering DNA repair outcomes. Nature Communications, 2016, 7, 12463.	5.8	66

#	Article	IF	Citations
38	Emerging cellular and gene therapies for congenital anemias. American Journal of Medical Genetics, Part C: Seminars in Medical Genetics, 2016, 172, 332-348.	0.7	6
39	Endonuclease mediated genome editing in drug discovery and development: promises and challenges. Drug Discovery Today: Technologies, 2016, 21-22, 17-25.	4.0	2
40	Zebrafish Genome Engineering Using the CRISPRâ€“Cas9 System. Trends in Genetics, 2016, 32, 815-827.	2.9	128
41	The role of repressor kinetics in relief of transcriptional interference between convergent promoters. Nucleic Acids Research, 2016, 44, 6625-6638.	6.5	25
42	Antiestrogen Resistant Cell Lines Expressing Estrogen Receptor Î± Mutations Upregulate the Unfolded Protein Response and are Killed by BHPI. Scientific Reports, 2016, 6, 34753.	1.6	50
43	Clustered Regularly Interspaced Short Palindromic Repeats. Asia-Pacific Journal of Ophthalmology, 2016, 5, 304-308.	1.3	6
44	Gene correction in patient-specific iPSCs for therapy development and disease modeling. Human Genetics, 2016, 135, 1041-1058.	1.8	34
45	Applications of CRISPR-Cas in its natural habitat. Current Opinion in Chemical Biology, 2016, 34, 30-36.	2.8	5
46	Transcriptional regulation with CRISPR-Cas9: principles, advances, and applications. Current Opinion in Biotechnology, 2016, 40, 177-184.	3.3	69
47	Impact of gene editing on the study of cystic fibrosis. Human Genetics, 2016, 135, 983-992.	1.8	15
48	Offâ€target effects of engineered nucleases. FEBS Journal, 2016, 283, 3239-3248.	2.2	71
49	Precise and efficient scarless genome editing in stem cells using CORRECT. Nature Protocols, 2017, 12, 329-354.	5.5	81
50	Characterization of the interplay between DNA repair and CRISPR/Cas9-induced DNA lesions at an endogenous locus. Nature Communications, 2017, 8, 13905.	5.8	154
51	A New Era of Genome Integrationâ€”Simply Cut and Paste!. ACS Synthetic Biology, 2017, 6, 601-609.	1.9	40
52	Lessons from Enzyme Kinetics Reveal Specificity Principles for RNA-Guided Nucleases in RNA Interference and CRISPR-Based Genome Editing. Cell Systems, 2017, 4, 21-29.	2.9	72
53	Genome Editing for the Study of Cardiovascular Diseases. Current Cardiology Reports, 2017, 19, 22.	1.3	21
54	Efficient precise knockin with a double cut HDR donor after CRISPR/Cas9-mediated double-stranded DNA cleavage. Genome Biology, 2017, 18, 35.	3.8	348
55	Organoid technologies meet genome engineering. EMBO Reports, 2017, 18, 367-376.	2.0	52

#	Article	IF	Citations
56	Genome editing using FACS enrichment of nuclease-expressing cells and indel detection by amplicon analysis. Nature Protocols, 2017, 12, 581-603.	5.5	103
57	Optimization of the production of knock-in alleles by CRISPR/Cas9 microinjection into the mouse zygote. Scientific Reports, 2017, 7, 42661.	1.6	59
58	Efficient generation of mice carrying homozygous double-floxp alleles using the Cas9-Avidin/Biotin-donor DNA system. Cell Research, 2017, 27, 578-581.	5.7	84
59	Gene editing in mouse zygotes using the CRISPR/Cas9 system. Methods, 2017, 121-122, 55-67.	1.9	49
60	What rheumatologists need to know about CRISPR/Cas9. Nature Reviews Rheumatology, 2017, 13, 205-216.	3.5	18
61	Therapeutic genome engineering via <scp>CRISPR</scp>â€Cas systems. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2017, 9, e1380.	6.6	22
62	An efficient method to enrich for knock-out and knock-in cellular clones using the CRISPR/Cas9 system. Cellular and Molecular Life Sciences, 2017, 74, 3413-3423.	2.4	12
63	Genome editing via delivery of Cas9 ribonucleoprotein. Methods, 2017, 121-122, 9-15.	1.9	123
64	Advances in CRISPR-Cas based genome engineering. Current Opinion in Biomedical Engineering, 2017, 1, 78-86.	1.8	6
65	Towards mastering CRISPR-induced gene knock-in in plants: Survey of key features and focus on the model Physcomitrella patens. Methods, 2017, 121-122, 103-117.	1.9	51
66	Switchable Cas9. Current Opinion in Biotechnology, 2017, 48, 119-126.	3.3	38
67	CRISPRâ€“Cas9 Mediated DNA Unwinding Detected Using Site-Directed Spin Labeling. ACS Chemical Biology, 2017, 12, 1489-1493.	1.6	24
68	Developmental history and application of CRISPR in human disease. Journal of Gene Medicine, 2017, 19, e2963.	1.4	9
69	CRISPR system in filamentous fungi: Current achievements and future directions. Gene, 2017, 627, 212-221.	1.0	65
70	Gene editing and clonal isolation of human induced pluripotent stem cells using CRISPR/Cas9. Methods, 2017, 121-122, 29-44.	1.9	42
71	CRISPR-Cas orthologues and variants: optimizing the repertoire, specificity and delivery of genome engineering tools. Mammalian Genome, 2017, 28, 247-261.	1.0	104
72	Disruptive non-disruptive applications of CRISPR/Cas9. Current Opinion in Biotechnology, 2017, 48, 203-209.	3.3	7
74	Improving the DNA specificity and applicability of base editing through protein engineering and protein delivery. Nature Communications, 2017, 8, 15790.	5.8	343

#	Article	IF	Citations
75	Engineered CRISPR Systems for Next Generation Gene Therapies. ACS Synthetic Biology, 2017, 6, 1614-1626.	1.9	30
76	Analysing the outcome of CRISPR-aided genome editing in embryos: Screening, genotyping and quality control. Methods, 2017, 121-122, 68-76.	1.9	72
77	Control of gene editing by manipulation of DNA repair mechanisms. Mammalian Genome, 2017, 28, 262-274.	1.0	57
78	Optimizing the DNA Donor Template for Homology-Directed Repair of Double-Strand Breaks. Molecular Therapy - Nucleic Acids, 2017, 7, 53-60.	2.3	109
79	Lysosomal cholesterol activates mTORC1 via an SLC38A9â€“Niemann-Pick C1 signaling complex. Science, 2017, 355, 1306-1311.	6.0	386
80	Applications of CRISPR genome editing technology in drug target identification and validation. Expert Opinion on Drug Discovery, 2017, 12, 541-552.	2.5	15
81	Mechanisms of precise genome editing using oligonucleotide donors. Genome Research, 2017, 27, 1099-1111.	2.4	76
82	CRISPRtools: a flexible computational platform for performing CRISPR/Cas9 experiments in the mouse. Mammalian Genome, 2017, 28, 283-290.	1.0	8
83	Functional interrogation of non-coding DNA through CRISPR genome editing. Methods, 2017, 121-122, 118-129.	1.9	28
84	Re-engineered RNA-Guided FokI-Nucleases for Improved Genome Editing in Human Cells. Molecular Therapy, 2017, 25, 342-355.	3.7	25
85	Live cell imaging of low- and non-repetitive chromosome loci using CRISPR-Cas9. Nature Communications, 2017, 8, 14725.	5.8	199
86	Editing the genome of hiPSC with CRISPR/Cas9: disease models. Mammalian Genome, 2017, 28, 348-364.	1.0	72
87	Cornerstones of CRISPRâ€“Cas in drug discovery and therapy. Nature Reviews Drug Discovery, 2017, 16, 89-100.	21.5	370
88	Nick-initiated homologous recombination: Protecting the genome, one strand at a time. DNA Repair, 2017, 50, 1-13.	1.3	27
89	Synthetic Biologyâ€”The Synthesis of Biology. Angewandte Chemie - International Edition, 2017, 56, 6396-6419.	7.2	141
90	Synthetische Biologie â€“ die Synthese der Biologie. Angewandte Chemie, 2017, 129, 6494-6519.	1.6	11
91	Genome and Epigenome Editing in Mechanistic Studies of Human Aging and Aging-Related Disease. Gerontology, 2017, 63, 103-117.	1.4	11
92	Using the CRISPR/Cas9 system to understand neuropeptide biology and regulation. Neuropeptides, 2017, 64, 19-25.	0.9	4

#	Article	IF	Citations
93	Nanoparticle delivery of Cas9 ribonucleoprotein and donor DNA in vivo induces homology-directed DNA repair. Nature Biomedical Engineering, 2017, 1, 889-901.	11.6	566
94	Production of Purified CasRNPs for Efficacious Genome Editing. Current Protocols in Molecular Biology, 2017, 120, 31.10.1-31.10.19.	2.9	38
95	Ectopic expression of RAD52 and dn53BP1 improves homology-directed repair during CRISPRâ€“Cas9 genome editing. Nature Biomedical Engineering, 2017, 1, 878-888.	11.6	83
97	Engineering species-like barriers to sexual reproduction. Nature Communications, 2017, 8, 883.	5.8	41
98	CRISPR/CAS9, the king of genome editing tools. Molecular Biology, 2017, 51, 514-525.	0.4	18
99	Beyond editing to writing large genomes. Nature Reviews Genetics, 2017, 18, 749-760.	7.7	40
100	USH2A Gene Editing Using the CRISPR System. Molecular Therapy - Nucleic Acids, 2017, 8, 529-541.	2.3	56
101	Enhancing CRISPR/Cas9-mediated homology-directed repair in mammalian cells by expressing Saccharomyces cerevisiae Rad52. International Journal of Biochemistry and Cell Biology, 2017, 92, 43-52.	1.2	64
102	APOBEC: From mutator to editor. Journal of Genetics and Genomics, 2017, 44, 423-437.	1.7	54
103	Genome Engineering for Personalized Arthritis Therapeutics. Trends in Molecular Medicine, 2017, 23, 917-931.	3.5	54
104	In trans paired nicking triggers seamless genome editing without double-stranded DNA cutting. Nature Communications, 2017, 8, 657.	5.8	74
105	A Standard Methodology to Examine On-site Mutagenicity As a Function of Point Mutation Repair Catalyzed by CRISPR/Cas9 and SsODN in Human Cells. Journal of Visualized Experiments, 2017, , .	0.2	3
106	Rapidly inducible Cas9 and DSB-ddPCR to probe editing kinetics. Nature Methods, 2017, 14, 891-896.	9.0	88
107	The Therapeutic Potential of CRISPR/Cas9 Systems in Oncogene-Addicted Cancer Types: Virally Driven Cancers as a Model System. Molecular Therapy - Nucleic Acids, 2017, 8, 56-63.	2.3	18
108	Generation of Genetically Modified Mice through the Microinjection of Oocytes. Journal of Visualized Experiments, 2017, , .	0.2	10
109	Correction of a pathogenic gene mutation in human embryos. Nature, 2017, 548, 413-419.	13.7	781
110	Modeling the genetic complexity of Parkinson's disease by targeted genome edition in iPS cells. Current Opinion in Genetics and Development, 2017, 46, 123-131.	1.5	16
111	Targeted genome editing in Caenorhabditis elegans using <scp>CRISPR</scp>/Cas9. Wiley Interdisciplinary Reviews: Developmental Biology, 2017, 6, e287.	5.9	15

#	Article	IF	Citations
112	Disabling Cas9 by an anti-CRISPR DNA mimic. Science Advances, 2017, 3, e1701620.	4.7	289
113	A conformational checkpoint between DNA binding and cleavage by CRISPR-Cas9. Science Advances, 2017, 3, eaao0027.	4.7	211
114	Repair of the TGFBI gene in human corneal keratocytes derived from a granular corneal dystrophy patient via CRISPR/Cas9-induced homology-directed repair. Scientific Reports, 2017, 7, 16713.	1.6	29
115	CRISPR-Cpf1 mediates efficient homology-directed repair and temperature-controlled genome editing. Nature Communications, 2017, 8, 2024.	5.8	232
116	Programmable DNA looping using engineered bivalent dCas9 complexes. Nature Communications, 2017, 8, 1628.	5.8	60
117	Assembly of CRISPR ribonucleoproteins with biotinylated oligonucleotides via an RNA aptamer for precise gene editing. Nature Communications, 2017, 8, 1711.	5.8	121
118	Precision genome editing using synthesis-dependent repair of Cas9-induced DNA breaks. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10745-E10754.	3.3	175
119	Mapping the sugar dependency for rational generation of a DNA-RNA hybrid-guided Cas9 endonuclease. Nature Communications, 2017, 8, 1610.	5.8	52
120	Enhanced precision and efficiency. Nature Biomedical Engineering, 2017, 1, 856-857.	11.6	1
121	Methods for Scarless, Selection-Free Generation of Human Cells and Allele-Specific Functional Analysis of Disease-Associated SNPs and Variants of Uncertain Significance. Scientific Reports, 2017, 7, 15044.	1.6	8
122	Real-space and real-time dynamics of CRISPR-Cas9 visualized by high-speed atomic force microscopy. Nature Communications, 2017, 8, 1430.	5.8	184
123	Precision Medicine, CRISPR, and Genome Engineering. Advances in Experimental Medicine and Biology, 2017, , .	0.8	2
124	A Transgenic Core Facilityâ€™s Experience in Genome Editing Revolution. Advances in Experimental Medicine and Biology, 2017, 1016, 75-90.	0.8	23
125	RICE CRISPR: Rapidly increased cut ends by an exonuclease Cas9 fusion in zebrafish. Genesis, 2017, 55, e23044.	0.8	11
126	Advances in the delivery of RNA therapeutics: from concept to clinical reality. Genome Medicine, 2017, 9, 60.	3.6	491
127	Enhanced CRISPR/Cas9-mediated precise genome editing by improved design and delivery of gRNA, Cas9 nuclease, and donor DNA. Journal of Biotechnology, 2017, 241, 136-146.	1.9	198
128	CRISPR-Based Technologies for the Manipulation of Eukaryotic Genomes. Cell, 2017, 168, 20-36.	13.5	783
129	New era in genetics of early-onset muscle disease: Breakthroughs and challenges. Seminars in Cell and Developmental Biology, 2017, 64, 160-170.	2.3	24

#	Article	IF	Citations
130	<scp>CRISPR</scp>: express delivery to any <scp>DNA</scp> address. Oral Diseases, 2017, 23, 5-11.	1.5	6
131	Precision genome editing in the CRISPR era. Biochemistry and Cell Biology, 2017, 95, 187-201.	0.9	120
132	InÂvivo genome editing as a potential treatment strategy for inherited retinal dystrophies. Progress in Retinal and Eye Research, 2017, 56, 1-18.	7.3	62
133	Gene editing rescue of a novel MPL mutant associated with congenital amegakaryocytic thrombocytopenia. Blood Advances, 2017, 1, 1815-1826.	2.5	11
134	Applications of Alternative Nucleases in the Age of CRISPR/Cas9. International Journal of Molecular Sciences, 2017, 18, 2565.	1.8	22
135	Gene Editing in Human Lymphoid Cells: Role for Donor DNA, Type of Genomic Nuclease and Cell Selection Method. Viruses, 2017, 9, 325.	1.5	4
136	A Prospective Treatment Option for Lysosomal Storage Diseases: CRISPR/Cas9 Gene Editing Technology for Mutation Correction in Induced Pluripotent Stem Cells. Diseases (Basel, Switzerland), 2017, 5, 6.	1.0	12
137	Synthetically modified guide RNA and donor DNA are a versatile platform for CRISPR-Cas9 engineering. ELife, 2017, 6, .	2.8	121
138	Insertional Mutagenesis by CRISPR/Cas9 Ribonucleoprotein Gene Editing in Cells Targeted for Point Mutation Repair Directed by Short Single-Stranded DNA Oligonucleotides. PLoS ONE, 2017, 12, e0169350.	1.1	39
139	Splicing stimulates siRNA formation at Drosophila DNA double-strand breaks. PLoS Genetics, 2017, 13, e1006861.	1.5	15
140	Efficient gene editing in Corynebacterium glutamicum using the CRISPR/Cas9 system. Microbial Cell Factories, 2017, 16, 201.	1.9	66
141	CRISPR/Cas9-Correctable mutation-related molecular and physiological phenotypes in iPSC-derived Alzheimerâ€™s PSEN2 N141I neurons. Acta Neuropathologica Communications, 2017, 5, 77.	2.4	102
142	Small molecules enhance CRISPR/Cas9-mediated homology-directed genome editing in primary cells. Scientific Reports, 2017, 7, 8943.	1.6	104
143	In vivo genome editing in animals using AAV-CRISPR system: applications to translational research of human disease. F1000Research, 2017, 6, 2153.	0.8	127
144	Comparative analysis of lipidâ€mediated CRISPRâ€Cas9 genome editing techniques. Cell Biology International, 2018, 42, 849-858.	1.4	2
145	Double-stranded DNA break polarity skews repair pathway choice during intrachromosomal and interchromosomal recombination. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2800-2805.	3.3	18
146	Catch the live show: Visualizing damaged DNA in vivo. Methods, 2018, 142, 24-29.	1.9	4
147	Efficient Delivery and Nuclear Uptake Is Not Sufficient to Detect Gene Editing in CD34+ Cells Directed by a Ribonucleoprotein Complex. Molecular Therapy - Nucleic Acids, 2018, 11, 116-129.	2.3	11

#	Article	IF	Citations
148	An efficient platform for generating somatic point mutations with germline transmission in the zebrafish by CRISPR/Cas9-mediated gene editing. Journal of Biological Chemistry, 2018, 293, 6611-6622.	1.6	40
149	CRISPR-Directed In Vitro Gene Editing of Plasmid DNA Catalyzed by Cpf1 (Cas12a) Nuclease and a Mammalian Cell-Free Extract. CRISPR Journal, 2018, 1, 191-202.	1.4	16
150	Intracellular generation of single-strand template increases the knock-in efficiency by combining CRISPR/Cas9 with AAV. Molecular Genetics and Genomics, 2018, 293, 1051-1060.	1.0	14
151	Clustered regularly interspaced short palindromic repeats (CRISPR)/CRISPR-associated protein 9 with improved proof-reading enhances homology-directed repair. Nucleic Acids Research, 2018, 46, 4677-4688.	6.5	65
152	CRISPR-Cas9; an efficient tool for precise plant genome editing. Molecular and Cellular Probes, 2018, 39, 47-52.	0.9	8
153	Mechanisms of improved specificity of engineered Cas9s revealed by single-molecule FRET analysis. Nature Structural and Molecular Biology, 2018, 25, 347-354.	3.6	103
154	Engineering Point Mutant and Epitopeâ€Tagged Alleles in Mice Using Cas9 RNAâ€Guided Nuclease. Current Protocols in Mouse Biology, 2018, 8, 28-53.	1.2	22
155	â€˜Cold shockâ€™ increases the frequency of homology directed repair gene editing in induced pluripotent stem cells. Scientific Reports, 2018, 8, 2080.	1.6	52
156	CRISPR/Cas9 cleavages in budding yeast reveal templated insertions and strand-specific insertion/deletion profiles. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2040-E2047.	3.3	152
157	Highly Efficient and Versatile Plasmid-Based Gene Editing in Primary T Cells. Journal of Immunology, 2018, 200, 2489-2501.	0.4	28
158	Programmable RNA Cleavage and Recognition by a Natural CRISPR-Cas9 System from Neisseria meningitidis. Molecular Cell, 2018, 69, 906-914.e4.	4.5	73
159	Functional Insights Revealed by the Kinetic Mechanism of CRISPR/Cas9. Journal of the American Chemical Society, 2018, 140, 2971-2984.	6.6	121
160	CRISPR-Cas12a target binding unleashes indiscriminate single-stranded DNase activity. Science, 2018, 360, 436-439.	6.0	2,355
161	CRISPR/Cas9: A tool for immunological research. European Journal of Immunology, 2018, 48, 576-583.	1.6	19
162	Unexpected heterogeneity derived from Cas9 ribonucleoproteinâ€introduced clonal cells at the <scp>HPRT</scp>1 locus. Genes To Cells, 2018, 23, 255-263.	0.5	7
163	Electroporation of mice zygotes with dual guide RNA/Cas9 complexes for simple and efficient cloning-free genome editing. Scientific Reports, 2018, 8, 474.	1.6	63
164	Scarless Genome Editing of Human Pluripotent Stem Cells via Transient Puromycin Selection. Stem Cell Reports, 2018, 10, 642-654.	2.3	58
165	CDC14A phosphatase is essential for hearing and male fertility in mouse and human. Human Molecular Genetics, 2018, 27, 780-798.	1.4	49

#	Article	IF	Citations
166	Multimode drug inducible CRISPR/Cas9 devices for transcriptional activation and genome editing. Nucleic Acids Research, 2018, 46, e25-e25.	6.5	38
167	Harnessing â€œA Billion Years of Experimentationâ€: The Ongoing Exploration and Exploitation of CRISPRâ€“Cas Immune Systems. CRISPR Journal, 2018, 1, 141-158.	1.4	44
168	CRISPR-Cas9-Mediated Correction of the 1.02â€‰kb Common Deletion in CLN3 in Induced Pluripotent Stem Cells from Patients with Batten Disease. CRISPR Journal, 2018, 1, 75-87.	1.4	15
169	Fusogenic micropeptide Myomixer is essential for satellite cell fusion and muscle regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3864-3869.	3.3	71
170	Developing precision medicine using scarless genome editing of human pluripotent stem cells. Drug Discovery Today: Technologies, 2018, 28, 3-12.	4.0	7
171	Programmable Single and Multiplex Base-Editing in Bombyx mori Using RNA-Guided Cytidine Deaminases. G3: Genes, Genomes, Genetics, 2018, 8, 1701-1709.	0.8	19
172	Increasing the efficiency of CRISPRâ€Cas9â€VQR precise genome editing in rice. Plant Biotechnology Journal, 2018, 16, 292-297.	4.1	78
173	Genomes in Focus: Development and Applications of CRISPRâ€Cas9 Imaging Technologies. Angewandte Chemie - International Edition, 2018, 57, 4329-4337.	7.2	67
174	Erythropoiesis. Methods in Molecular Biology, 2018, , .	0.4	0
175	Editing the Genome Without Double-Stranded DNA Breaks. ACS Chemical Biology, 2018, 13, 383-388.	1.6	89
176	Rheostatic Control of Cas9-Mediated DNA Double Strand Break (DSB) Generation and Genome Editing. ACS Chemical Biology, 2018, 13, 438-442.	1.6	13
177	Engineering Protein-Secreting Plasma Cells by Homology-Directed Repair in Primary Human B Cells. Molecular Therapy, 2018, 26, 456-467.	3.7	92
178	Modulating DNA Repair Pathways to Improve Precision Genome Engineering. ACS Chemical Biology, 2018, 13, 389-396.	1.6	99
179	Genome im Fokus: Entwicklung und Anwendungen von CRISPRâ€Cas9â€Bildgebungstechnologien. Angewandte Chemie, 2018, 130, 4412-4420.	1.6	7
180	Modeling Cancer in the CRISPR Era. Annual Review of Cancer Biology, 2018, 2, 111-131.	2.3	15
181	Genome Editing of Erythroid Cell Culture Model Systems. Methods in Molecular Biology, 2018, 1698, 245-257.	0.4	3
182	Gene correction of HBB mutations in CD34+ hematopoietic stem cells using Cas9 mRNA and ssODN donors. Molecular and Cellular Pediatrics, 2018, 5, 9.	1.0	49
183	Conditional mutagenesis by oligonucleotide-mediated integration of loxP sites in zebrafish. PLoS Genetics, 2018, 14, e1007754.	1.5	39

#	Article	IF	Citations
184	Double-Stranded Biotinylated Donor Enhances Homology-Directed Repair in Combination with Cas9 Monoavidin in Mammalian Cells. CRISPR Journal, 2018, 1, 414-430.	1.4	12
185	Heterochromatin delays CRISPR-Cas9 mutagenesis but does not influence the outcome of mutagenic DNA repair. PLoS Biology, 2018, 16, e2005595.	2.6	75
186	Engineered dCas9 with reduced toxicity in bacteria: implications for genetic circuit design. Nucleic Acids Research, 2018, 46, 11115-11125.	6.5	108
187	Retroelement-Based Genome Editing and Evolution. ACS Synthetic Biology, 2018, 7, 2600-2611.	1.9	44
188	DNA, RNA, and Protein Tools for Editing the Genetic Information in Human Cells. IScience, 2018, 6, 247-263.	1.9	25
189	Conserved SUN-KASH Interfaces Mediate LINC Complex-Dependent Nuclear Movement and Positioning. Current Biology, 2018, 28, 3086-3097.e4.	1.8	52
190	HIT-Cas9: A CRISPR/Cas9 Genome-Editing Device under Tight and Effective Drug Control. Molecular Therapy - Nucleic Acids, 2018, 13, 208-219.	2.3	22
191	Zebrafish knock-ins swim into the mainstream. DMM Disease Models and Mechanisms, 2018, 11, .	1.2	26
192	Minimal PAM specificity of a highly similar SpCas9 ortholog. Science Advances, 2018, 4, eaau0766.	4.7	183
193	High fidelity CRISPR/Cas9 increases precise monoallelic and biallelic editing events in primordial germ cells. Scientific Reports, 2018, 8, 15126.	1.6	40
194	Promise of gene therapy to treat sickle cell disease. Expert Opinion on Biological Therapy, 2018, 18, 1123-1136.	1.4	18
195	CRISPR/Cas9-mediated homology-directed repair by ssODNs in zebrafish induces complex mutational patterns resulting from genomic integration of repair-template fragments. DMM Disease Models and Mechanisms, 2018, 11, .	1.2	77
196	Guardian of Genome Editing. CRISPR Journal, 2018, 1, 258-260.	1.4	1
197	Versatile Redox-Responsive Polyplexes for the Delivery of Plasmid DNA, Messenger RNA, and CRISPR-Cas9 Genome-Editing Machinery. ACS Applied Materials & Interfaces, 2018, 10, 31915-31927.	4.0	49
198	Functional Genetic Variants Revealed by Massively Parallel Precise Genome Editing. Cell, 2018, 175, 544-557.e16.	13.5	166
199	CRISPR-Cas immunity, DNA repair and genome stability. Bioscience Reports, 2018, 38, .	1.1	27
200	Genome Editing in Human Neural Stem and Progenitor Cells. Results and Problems in Cell Differentiation, 2018, 66, 163-182.	0.2	1
201	Increasing the precision of gene editing inÂvitro, exÂvivo, and inÂvivo. Current Opinion in Biomedical Engineering, 2018, 7, 83-90.	1.8	8

#	Article	IF	Citations
202	Genome Editing in Mice Using CRISPR/Cas9 Technology. Current Protocols in Cell Biology, 2018, 81, e57.	2.3	20
203	How to Generate Non-Mosaic CRISPR/Cas9 Mediated Knock-In and Mutations in F0 Xenopus Through the Host-Transfer Technique. Methods in Molecular Biology, 2018, 1865, 105-117.	0.4	4
204	CRISPR/Cas9 system: A promising technology for the treatment of inherited and neoplastic hematological diseases. Advances in Cell and Gene Therapy, 2018, 1, e10.	0.6	13
205	Heterozygous IDH1R132H/WT created by â€œsingle base editingâ€•inhibits human astroglial cell growth by downregulating YAP. Oncogene, 2018, 37, 5160-5174.	2.6	27
206	Ezh2 Mutations Found in the Weaver Overgrowth Syndrome Cause a Partial Loss of H3K27 Histone Methyltransferase Activity. Journal of Clinical Endocrinology and Metabolism, 2018, 103, 1470-1478.	1.8	33
207	Increasing Cas9-mediated homology-directed repair efficiency through covalent tethering of DNA repair template. Communications Biology, 2018, 1, 54.	2.0	175
208	Enhanced Genome Editing with Cas9 Ribonucleoprotein in Diverse Cells and Organisms. Journal of Visualized Experiments, 2018, , .	0.2	29
209	GATOR1-dependent recruitment of FLCNâ€“FNIP to lysosomes coordinates Rag GTPase heterodimer nucleotide status in response to amino acids. Journal of Cell Biology, 2018, 217, 2765-2776.	2.3	54
210	Kinetics and Fidelity of the Repair of Cas9-Induced Double-Strand DNA Breaks. Molecular Cell, 2018, 70, 801-813.e6.	4.5	194
211	Enhanced Bacterial Immunity and Mammalian Genome Editing via RNA-Polymerase-Mediated Dislodging of Cas9 from Double-Strand DNA Breaks. Molecular Cell, 2018, 71, 42-55.e8.	4.5	112
212	Genome Editing Redefines Precision Medicine in the Cardiovascular Field. Stem Cells International, 2018, 2018, 1-11.	1.2	8
213	Optimized CRISPR-Cpf1 system for genome editing in zebrafish. Methods, 2018, 150, 11-18.	1.9	38
214	Synthesis-dependent repair of Cpf1-induced double strand DNA breaks enables targeted gene replacement in rice. Journal of Experimental Botany, 2018, 69, 4715-4721.	2.4	70
215	How to create state-of-the-art genetic model systems: strategies for optimal CRISPR-mediated genome editing. Nucleic Acids Research, 2018, 46, 6435-6454.	6.5	37
216	Myoediting: Toward Prevention of Muscular Dystrophy by Therapeutic Genome Editing. Physiological Reviews, 2018, 98, 1205-1240.	13.1	31
217	Targeted Genome Editing Techniques in C. elegans and Other Nematode Species. , 0, , 3-21.		0
218	Genome Editing with Desired Mutations (Knockin) with CRISPR in Model Organisms. , 0, , 97-109.		0
219	Generation of New Model Cell Lines using ssODN Knockin Donors and FACS-based Genome Editing. , 0, , 150-162.		0

#	Article	IF	Citations
220	Programmable base editing in zebrafish using a modified CRISPR-Cas9 system. Methods, 2018, 150, 19-23.	1.9	10
221	Fishing for understanding: Unlocking the zebrafish gene editorâ€™s toolbox. Methods, 2018, 150, 3-10.	1.9	22
222	Design of synthetic materials for intracellular delivery of RNAs: From siRNA-mediated gene silencing to CRISPR/Cas gene editing. Nano Research, 2018, 11, 5310-5337.	5.8	31
223	Comparative analysis of single-stranded DNA donors to generate conditional null mouse alleles. BMC Biology, 2018, 16, 69.	1.7	64
224	CRISPRâ€“Cas9 genome editing in human cells occurs via the Fanconi anemia pathway. Nature Genetics, 2018, 50, 1132-1139.	9.4	187
225	Genome-editing applications of CRISPR–Cas9 to promote in vitro studies of Alzheimer’s disease. Clinical Interventions in Aging, 2018, Volume 13, 221-233.	1.3	37
226	Systematic evaluation of CRISPR-Cas systems reveals design principles for genome editing in human cells. Genome Biology, 2018, 19, 62.	3.8	66
227	Efficient homology-directed gene editing by CRISPR/Cas9 in human stem and primary cells using tube electroporation. Scientific Reports, 2018, 8, 11649.	1.6	53
228	Efficient Knock-in of a Point Mutation in Porcine Fibroblasts Using the CRISPR/Cas9-GMNN Fusion Gene. Genes, 2018, 9, 296.	1.0	20
229	Optimized knock-in of point mutations in zebrafish using CRISPR/Cas9. Nucleic Acids Research, 2018, 46, e102-e102.	6.5	50
230	In vitroâ€“transcribed guide RNAs trigger an innate immune response via the RIG-I pathway. PLoS Biology, 2018, 16, e2005840.	2.6	81
231	Covalent linkage of the DNA repair template to the CRISPR-Cas9 nuclease enhances homology-directed repair. ELife, 2018, 7, .	2.8	127
232	Making ends meet: targeted integration of DNA fragments by genome editing. Chromosoma, 2018, 127, 405-420.	1.0	35
233	Formation and nucleolytic processing of Cas9-induced DNA breaks in human cells quantified by droplet digital PCR. DNA Repair, 2018, 68, 68-74.	1.3	11
234	Real-time observation of DNA target interrogation and product release by the RNA-guided endonuclease CRISPR Cpf1 (Cas12a). Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5444-5449.	3.3	156
235	Prospects for engineering dynamic CRISPRâ€“Cas transcriptional circuits to improve bioproduction. Journal of Industrial Microbiology and Biotechnology, 2018, 45, 481-490.	1.4	14
236	Xenopus. Methods in Molecular Biology, 2018, , .	0.4	3
237	Correction of the Marfan Syndrome Pathogenic FBN1 Mutation by Base Editing in Human Cells and Heterozygous Embryos. Molecular Therapy, 2018, 26, 2631-2637.	3.7	120

#	Article	IF	Citations
238	WDR41 supports lysosomal response to changes in amino acid availability. Molecular Biology of the Cell, 2018, 29, 2213-2227.	0.9	31
239	VPS13A and VPS13C are lipid transport proteins differentially localized at ER contact sites. Journal of Cell Biology, 2018, 217, 3625-3639.	2.3	414
240	Multiplex CRISPR/Cas9 system impairs HCMV replication by excising an essential viral gene. PLoS ONE, 2018, 13, e0192602.	1.1	28
241	Auxin-Mediated Sterility Induction System for Longevity and Mating Studies in Caenorhabditis elegans. G3: Genes, Genomes, Genetics, 2018, 8, 2655-2662.	0.8	42
242	CRISPRâ€“Cas9 genome editing induces a p53-mediated DNA damage response. Nature Medicine, 2018, 24, 927-930.	15.2	874
243	High-throughput antibody engineering in mammalian cells by CRISPR/Cas9-mediated homology-directed mutagenesis. Nucleic Acids Research, 2018, 46, 7436-7449.	6.5	61
244	CRISPR/Cas9 Gene Editing: From Basic Mechanisms to Improved Strategies for Enhanced Genome Engineering In Vivo. Current Gene Therapy, 2018, 17, 263-274.	0.9	14
245	Genome editing by natural and engineered CRISPR-associated nucleases. Nature Chemical Biology, 2018, 14, 642-651.	3.9	91
246	Determining the Pathogenicity of a Genomic Variant of Uncertain Significance Using CRISPR/Cas9 and Human-Induced Pluripotent Stem Cells. Circulation, 2018, 138, 2666-2681.	1.6	112
247	CRISPRâ€Enabled Tools for Engineering Microbial Genomes and Phenotypes. Biotechnology Journal, 2018, 13, e1700586.	1.8	30
249	Simultaneous precise editing of multiple genes in human cells. Nucleic Acids Research, 2019, 47, e116-e116.	6.5	85
250	A dominant-negative effect drives selection of TP53 missense mutations in myeloid malignancies. Science, 2019, 365, 599-604.	6.0	265
251	Functional genetic variants can mediate their regulatory effects through alteration of transcription factor binding. Nature Communications, 2019, 10, 3472.	5.8	39
252	Cell and Gene Therapies for Mucopolysaccharidoses: Base Editing and Therapeutic Delivery to the CNS. Diseases (Basel, Switzerland), 2019, 7, 47.	1.0	11
253	Genome Editing in Farm Animals. , 2019, , 455-461.		0
254	The emerging and uncultivated potential of CRISPR technology in plant science. Nature Plants, 2019, 5, 778-794.	4.7	294
255	Versatile transcription control based on reversible dCas9 binding. Rna, 2019, 25, 1457-1469.	1.6	13
256	The Problem of the Low Rates of CRISPR/Cas9-Mediated Knock-ins in Plants: Approaches and Solutions. International Journal of Molecular Sciences, 2019, 20, 3371.	1.8	36

#	Article	IF	Citations
257	CRISPR Craze to Transform Cardiac Biology. Trends in Molecular Medicine, 2019, 25, 791-802.	3.5	21
258	Label-Free CRISPR/Cas9 Assay for Site-Specific Nucleic Acid Detection. Analytical Chemistry, 2019, 91, 10870-10878.	3.2	25
259	Stimulation of CRISPR-mediated homology-directed repair by an engineered RAD18 variant. Nature Communications, 2019, 10, 3395.	5.8	85
260	Methods for Enhancing Clustered Regularly Interspaced Short Palindromic Repeats/Cas9-Mediated Homology-Directed Repair Efficiency. Frontiers in Genetics, 2019, 10, 551.	1.1	36
261	Functional Loss of ATRX and TERC Activates Alternative Lengthening of Telomeres (ALT) in LAPC4 Prostate Cancer Cells. Molecular Cancer Research, 2019, 17, 2480-2491.	1.5	25
263	The unstructured linker arms of MutL enable GATC site incision beyond roadblocks during initiation of DNA mismatch repair. Nucleic Acids Research, 2019, 47, 11667-11680.	6.5	26
265	Research on unbalanced training samples based on SMOTE algorithm. Journal of Physics: Conference Series, 2019, 1303, 012095.	0.3	3
266	Genome-scale CRISPR screens are efficient in non-homologous end-joining deficient cells. Scientific Reports, 2019, 9, 15751.	1.6	11
267	Recent advances in the CRISPR genome editing tool set. Experimental and Molecular Medicine, 2019, 51, 1-11.	3.2	120
268	Rapid in vitro production of single-stranded DNA. Nucleic Acids Research, 2019, 47, 11956-11962.	6.5	22
269	The post-PAM interaction of RNA-guided spCas9 with DNA dictates its target binding and dissociation. Science Advances, 2019, 5, eaaw9807.	4.7	29
270	Metalâ€Carbeneâ€Templated Photochemistry in Solution: A Universal Route towards Cyclobutane Derivatives. Chinese Journal of Chemistry, 2019, 37, 1147-1152.	2.6	26
271	Mechanistic Insights into the cis- and trans-Acting DNase Activities of Cas12a. Molecular Cell, 2019, 73, 589-600.e4.	4.5	298
272	An InÂVitro Human Segmentation Clock Model Derived from Embryonic Stem Cells. Cell Reports, 2019, 28, 2247-2255.e5.	2.9	57
273	Combinatorial diversity of Syk recruitment driven by its multivalent engagement with FcÎµRIÎ³. Molecular Biology of the Cell, 2019, 30, 2331-2347.	0.9	11
274	Antibody discovery and engineering by enhanced CRISPR-Cas9 integration of variable gene cassette libraries in mammalian cells. MAbs, 2019, 11, 1367-1380.	2.6	24
275	The application of genome editing technology. Biotarget, 0, 3, 15-15.	0.5	1
276	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

#	Article	IF	Citations
277	Weak membrane interactions allow Rheb to activate mTORC1 signaling without major lysosome enrichment. Molecular Biology of the Cell, 2019, 30, 2750-2760.	0.9	34
278	Francisella novicida Cas9 interrogates genomic DNA with very high specificity and can be used for mammalian genome editing. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20959-20968.	3.3	74
279	Systemic Delivery of CRISPR/Cas9 Targeting HPV Oncogenes Is Effective at Eliminating Established Tumors. Molecular Therapy, 2019, 27, 2091-2099.	3.7	54
280	Direct Detection and Quantification of Neoantigens. Cancer Immunology Research, 2019, 7, 1748-1754.	1.6	40
281	Spy-ing on Cas9: Single-molecule tools reveal the enzymology of Cas9. Current Opinion in Biomedical Engineering, 2019, 12, 25-33.	1.8	0
282	Generation of Defined Genomic Modifications Using CRISPR-CAS9 in Human Pluripotent Stem Cells. Journal of Visualized Experiments, 2019, , .	0.2	0
283	Effective CRISPR/Cas9-mediated correction of a Fanconi anemia defect by error-prone end joining or templated repair. Scientific Reports, 2019, 9, 768.	1.6	18
284	Genetic engineering of hematopoiesis: current stage of clinical translation and future perspectives. EMBO Molecular Medicine, 2019, 11, .	3.3	86
285	CRISPR-Based Tools in Immunity. Annual Review of Immunology, 2019, 37, 571-597.	9.5	38
286	SarcTrack. Circulation Research, 2019, 124, 1172-1183.	2.0	94
287	The phenotypic landscape of a Tbc1d24 mutant mouse includes convulsive seizures resembling human early infantile epileptic encephalopathy. Human Molecular Genetics, 2019, 28, 1530-1547.	1.4	20
288	A universal method for sensitive and cell-free detection of CRISPR-associated nucleases. Chemical Science, 2019, 10, 2653-2662.	3.7	14
289	Quantifying CRISPR off-target effects. Emerging Topics in Life Sciences, 2019, 3, 327-334.	1.1	9
290	Targeted gene knockin in zebrafish using the 28S rDNA-specific non-LTR-retrotransposon R2Ol. Mobile DNA, 2019, 10, 23.	1.3	7
291	CRISPR/Cas9 applications in gene therapy for primary immunodeficiency diseases. Emerging Topics in Life Sciences, 2019, 3, 277-287.	1.1	8
292	CRISPRâ€Cas system: Toward a more efficient technology for genome editing and beyond. Journal of Cellular Biochemistry, 2019, 120, 16379-16392.	1.2	9
293	Improving homology-directed repair efficiency in human stem cells. Methods, 2019, 164-165, 18-28.	1.9	62
294	Development of CRISPR-Cas systems for genome editing and beyond. Quarterly Reviews of Biophysics, 2019, 52, .	2.4	108

#	Article	IF	Citations
295	Editing the Sickle Cell Disease Mutation in Human Hematopoietic Stem Cells: Comparison of Endonucleases and Homologous Donor Templates. Molecular Therapy, 2019, 27, 1389-1406.	3.7	83
296	The Gene Sculpt Suite: a set of tools for genome editing. Nucleic Acids Research, 2019, 47, W175-W182.	6.5	13
297	The Translational Landscape of the Human Heart. Cell, 2019, 178, 242-260.e29.	13.5	407
298	Highly efficient editing of theÂÎ²-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
299	Principles of and strategies for germline gene therapy. Nature Medicine, 2019, 25, 890-897.	15.2	49
300	Therapeutic application of the CRISPR system: current issues and new prospects. Human Genetics, 2019, 138, 563-590.	1.8	16
301	Multiplex genome editing of microorganisms using CRISPR-Cas. FEMS Microbiology Letters, 2019, 366, .	0.7	80
302	CRISPR-Cas9-Mediated Correction of the G189R-PAX2 Mutation in Induced Pluripotent Stem Cells from a Patient with Focal Segmental Glomerulosclerosis. CRISPR Journal, 2019, 2, 108-120.	1.4	4
303	A High-Throughput Platform to Identify Small-Molecule Inhibitors of CRISPR-Cas9. Cell, 2019, 177, 1067-1079.e19.	13.5	133
304	Bioproduction of pure, kilobase-scale single-stranded DNA. Scientific Reports, 2019, 9, 6121.	1.6	39
305	Precise Gene Editing Preserves Hematopoietic Stem Cell Function following Transient p53-Mediated DNA Damage Response. Cell Stem Cell, 2019, 24, 551-565.e8.	5.2	237
306	Applications of CRISPR systems in respiratory health: Entering a new â€˜red penâ€™ era in genome editing. Respirology, 2019, 24, 628-637.	1.3	13
307	The Chromatin Structure of CRISPR-Cas9 Target DNA Controls the Balance between Mutagenic and Homology-Directed Gene-Editing Events. Molecular Therapy - Nucleic Acids, 2019, 16, 141-154.	2.3	39
308	CRISPR-Cas9 genome editing induces megabase-scale chromosomal truncations. Nature Communications, 2019, 10, 1136.	5.8	292
309	CRISPR-gRNA Design. Methods in Molecular Biology, 2019, 1961, 3-11.	0.4	11
310	Rapid Quantitative Evaluation of CRISPR Genome Editing by TIDE and TIDER. Methods in Molecular Biology, 2019, 1961, 29-44.	0.4	83
311	Highly efficient genome editing for single-base substitutions using optimized ssODNs with Cas9-RNPs. Scientific Reports, 2019, 9, 4811.	1.6	96
312	Optimizing a CRISPR-Cpf1-based genome engineering system for Corynebacterium glutamicum. Microbial Cell Factories, 2019, 18, 60.	1.9	36

#	Article	IF	Citations
313	Precision Genome Editing in Human-Induced Pluripotent Stem Cells. Current Human Cell Research and Applications, 2019, , 113-130.	0.1	0
314	Genome Editing in Mammalian Cell Lines using CRISPR-Cas. Journal of Visualized Experiments, 2019, , .	0.2	3
315	Advancements and Obstacles of CRISPR-Cas9 Technology in Translational Research. Molecular Therapy - Methods and Clinical Development, 2019, 13, 359-370.	1.8	74
316	Medical Applications of iPS Cells. Current Human Cell Research and Applications, 2019, , .	0.1	0
317	Disruptive Technology: CRISPR/Cas-Based Tools and Approaches. Molecular Diagnosis and Therapy, 2019, 23, 187-200.	1.6	22
318	DNA stretching induces Cas9 off-target activity. Nature Structural and Molecular Biology, 2019, 26, 185-192.	3.6	105
319	An RNAâ€Guided Cas9 Nickaseâ€Based Method for Universal Isothermal DNA Amplification. Angewandte Chemie, 2019, 131, 5436-5440.	1.6	18
320	In vitro Generation of CRISPR-Cas9 Complexes with Covalently Bound Repair Templates for Genome Editing in Mammalian Cells. Bio-protocol, 2019, 9, .	0.2	13
321	An RNAâ€Guided Cas9 Nickaseâ€Based Method for Universal Isothermal DNA Amplification. Angewandte Chemie - International Edition, 2019, 58, 5382-5386.	7.2	83
322	Unlocking HDR-mediated nucleotide editing by identifying high-efficiency target sites using machine learning. Scientific Reports, 2019, 9, 2788.	1.6	31
323	CRISPR-Directed Gene Editing in a Community Cancer Center. Oncology Issues, 2019, 34, 30-37.	0.0	0
325	Genome Editing with CRISPRâ€Cas: An Overview. Current Protocols in Essential Laboratory Techniques, 2019, 19, e36.	2.6	12
326	Uncut but Primed for Change. CRISPR Journal, 2019, 2, 352-354.	1.4	0
327	Multiplex nucleotide editing by high-fidelity Cas9 variants with improved efficiency in rice. BMC Plant Biology, 2019, 19, 511.	1.6	28
328	Advances in genome editing through control of DNA repair pathways. Nature Cell Biology, 2019, 21, 1468-1478.	4.6	271
329	Understanding the diversity of genetic outcomes from CRISPR-Cas generated homology-directed repair. Communications Biology, 2019, 2, 458.	2.0	34
330	PASTMUS: mapping functional elements at single amino acid resolution in human cells. Genome Biology, 2019, 20, 279.	3.8	6
331	Molecular Design, Optimization, and Genomic Integration of Chimeric B Cell Receptors in Murine B Cells. Frontiers in Immunology, 2019, 10, 2630.	2.2	18

#	Article	IF	Citations
332	Kinesin light chain-1 serine-460 phosphorylation is altered in Alzheimerâ€™s disease and regulates axonal transport and processing of the amyloid precursor protein. Acta Neuropathologica Communications, 2019, 7, 200.	2.4	26
333	CRISPR/Cas12a Mediated Genome Editing To Introduce Amino Acid Substitutions into the Mechanosensitive Channel MscCG of Corynebacterium glutamicum. ACS Synthetic Biology, 2019, 8, 2726-2734.	1.9	22
334	Gene therapy for visual loss: Opportunities and concerns. Progress in Retinal and Eye Research, 2019, 68, 31-53.	7.3	78
335	CRISPR-Cap: multiplexed double-stranded DNA enrichment based on the CRISPR system. Nucleic Acids Research, 2019, 47, e1-e1.	6.5	24
336	CRISPR RNA-guided autonomous delivery of Cas9. Nature Structural and Molecular Biology, 2019, 26, 14-24.	3.6	27
337	Clinical applications of CRISPRâ€based genome editing and diagnostics. Transfusion, 2019, 59, 1389-1399.	0.8	31
338	Plant Genome Editing with CRISPR Systems. Methods in Molecular Biology, 2019, , .	0.4	12
339	Ways of improving precise knock-in by genome-editing technologies. Human Genetics, 2019, 138, 1-19.	1.8	29
340	Genomic sequencing and editing revealed the GRM8 signaling pathway as potential therapeutic targets of squamous cell lung cancer. Cancer Letters, 2019, 442, 53-67.	3.2	29
341	Predicting the mutations generated by repair of Cas9-induced double-strand breaks. Nature Biotechnology, 2019, 37, 64-72.	9.4	359
342	Plant DNA Repair Pathways and Their Applications in Genome Engineering. Methods in Molecular Biology, 2019, 1917, 3-24.	0.4	16
343	An Agrobacterium-Mediated CRISPR/Cas9 Platform for Genome Editing in Maize. Methods in Molecular Biology, 2019, 1917, 121-143.	0.4	8
344	Preparation and electroporation of Cas12a/Cpf1-guide RNA complexes for introducing large gene deletions in mouse embryonic stem cells. Methods in Enzymology, 2019, 616, 241-263.	0.4	16
345	Using CRISPR/Cas9 engineering to generate a mouse with a conditional knockout allele for the promyelocytic leukemia zinc finger transcription factor. Genesis, 2019, 57, e23281.	0.8	9
346	Aberrant RNA splicing is the major pathogenic effect in a knockâ€in mouse model of the dominantly inherited c.1430A>G humanRPE65mutation. Human Mutation, 2019, 40, 426-443.	1.1	22
347	CRISPR/Cas9-mediated targeted T-DNA integration in rice. Plant Molecular Biology, 2019, 99, 317-328.	2.0	37
348	Precision Control of CRISPR-Cas9 Using Small Molecules and Light. Biochemistry, 2019, 58, 234-244.	1.2	92
349	Staphylococcus aureus Cas9 is a multiple-turnover enzyme. Rna, 2019, 25, 35-44.	1.6	72

#	Article	IF	Citations
350	Production of Genetically Engineered Porcine Embryos by Handmade Cloning. Methods in Molecular Biology, 2019, 1874, 347-360.	0.4	3
351	Highly Efficient CRISPRâ€Cas9â€Mediated Genome Editing in Human Pluripotent Stem Cells. Current Protocols in Stem Cell Biology, 2019, 48, e64.	3.0	20
352	Improving Gene Editing Outcomes in Human Hematopoietic Stem and Progenitor Cells by Temporal Control of DNA Repair. Stem Cells, 2019, 37, 284-294.	1.4	70
353	Efficient CRISPR/Cas9â€Mediated Mutagenesis in Primary Murine T Lymphocytes. Current Protocols in Immunology, 2019, 124, e62.	3.6	13
354	Efficient Homologous Recombination in Mice Using Long Single Stranded DNA and CRISPR Cas9 Nickase. G3: Genes, Genomes, Genetics, 2019, 9, 281-286.	0.8	8
355	Gene-edited CRISPy Critters for alcohol research. Alcohol, 2019, 74, 11-19.	0.8	7
356	Biochemical characterization of RNA-guided ribonuclease activities for CRISPR-Cas9 systems. Methods, 2020, 172, 32-41.	1.9	0
357	CRISPR/Cas9 gene-editing strategies in cardiovascular cells. Cardiovascular Research, 2020, 116, 894-907.	1.8	40
358	Transgenic Mouse. Methods in Molecular Biology, 2020, , .	0.4	2
359	Precise gene replacement in plants through CRISPR/Cas genome editing technology: current status and future perspectives. ABIOTECH, 2020, 1, 58-73.	1.8	28
360	A simple and efficient workflow for generation of knockâ€in mutations in Jurkat T cells using CRISPR/Cas9. Scandinavian Journal of Immunology, 2020, 91, e12862.	1.3	9
361	CRISPR/Cas9: targeted genome editing for the treatment of hereditary hearing loss. Journal of Applied Genetics, 2020, 61, 51-65.	1.0	21
362	Oncogenic Mutations in Armadillo Repeats 5 and 6 of Î²-Catenin Reduce Binding to APC, Increasing Signaling and Transcription of Target Genes. Gastroenterology, 2020, 158, 1029-1043.e10.	0.6	20
363	Genome Editing in Patient iPSCs Corrects the Most Prevalent USH2A Mutations and Reveals Intriguing Mutant mRNA Expression Profiles. Molecular Therapy - Methods and Clinical Development, 2020, 17, 156-173.	1.8	56
364	A Universal Surrogate Reporter for Efficient Enrichment of CRISPR/Cas9-Mediated Homology-Directed Repair in Mammalian Cells. Molecular Therapy - Nucleic Acids, 2020, 19, 775-789.	2.3	23
365	CRISPR-cas9: a powerful tool towards precision medicine in cancer treatment. Acta Pharmacologica Sinica, 2020, 41, 583-587.	2.8	32
366	Inhibition of histone deacetylase 1 (HDAC1) and HDAC2 enhances CRISPR/Cas9 genome editing. Nucleic Acids Research, 2020, 48, 517-532.	6.5	360
367	Recent advances in CRISPR/Cas9-mediated knock-ins in mammalian cells. Journal of Biotechnology, 2020, 308, 1-9.	1.9	48

#	Article	IF	Citations
368	Mouse Models of Human Pathogenic Variants of TBC1D24 Associated with Non-Syndromic Deafness DFNB86 and DFNA65 and Syndromes Involving Deafness. Genes, 2020, 11, 1122.	1.0	12
369	Base editing: advances and therapeutic opportunities. Nature Reviews Drug Discovery, 2020, 19, 839-859.	21.5	218
370	DOT1L-controlled cell-fate determination and transcription elongation are independent of H3K79 methylation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 27365-27373.	3.3	43
371	The Diversity of Genetic Outcomes from CRISPR/Cas Gene Editing is Regulated by the Length of the Symmetrical Donor DNA Template. Genes, 2020, 11, 1160.	1.0	4
372	CRISPR-Cas9: A Promising Genome Editing Therapeutic Tool for Alzheimerâ€™s Diseaseâ€”A Narrative Review. Neurology and Therapy, 2020, 9, 419-434.	1.4	24
373	Precise Correction of Heterozygous SHOX2 Mutations in hiPSCs Derived from Patients with Atrial Fibrillation via Genome Editing and Sib Selection. Stem Cell Reports, 2020, 15, 999-1013.	2.3	6
374	CRISPR/Cas9: A powerful genome editing technique for the treatment of cancer cells with present challenges and future directions. Life Sciences, 2020, 263, 118525.	2.0	35
375	CRISPR-Casî¦ from huge phages is a hypercompact genome editor. Science, 2020, 369, 333-337.	6.0	352
376	CRISPRâ€“Cas immune systems and genome engineering. , 2020, , 157-177.		0
377	Chemogenetic System Demonstrates That Cas9 Longevity Impacts Genome Editing Outcomes. ACS Central Science, 2020, 6, 2228-2237.	5.3	14
378	MiCas9 increases large size gene knock-in rates and reduces undesirable on-target and off-target indel edits. Nature Communications, 2020, 11, 6082.	5.8	25
379	INDEL detection, the â€˜Achilles heelâ€™ of precise genome editing: a survey of methods for accurate profiling of gene editing induced indels. Nucleic Acids Research, 2020, 48, 11958-11981.	6.5	51
380	CRISPR Gene Therapy: Applications, Limitations, and Implications for the Future. Frontiers in Oncology, 2020, 10, 1387.	1.3	247
381	Graphene Oxide Nanoparticles Induce Apoptosis in wild-type and CRISPR/Cas9-IGF/IGFBP3 knocked-out Osteosarcoma Cells. Journal of Cancer, 2020, 11, 5007-5023.	1.2	34
382	A mixed culture of bacterial cells enables an economic DNA storage on a large scale. Communications Biology, 2020, 3, 416.	2.0	21
383	A scalable CRISPR/Cas9-based fluorescent reporter assay to study DNA double-strand break repair choice. Nature Communications, 2020, 11, 4077.	5.8	33
384	A multiplexed bioluminescent reporter for sensitive and non-invasive tracking of DNA double strand break repair dynamics in vitro and in vivo. Nucleic Acids Research, 2020, 48, e100-e100.	6.5	10
385	Supramolecular nanosubstrateâ€“mediated delivery system enables CRISPR-Cas9 knockin of hemoglobin beta gene for hemoglobinopathies. Science Advances, 2020, 6, .	4.7	25

#	Article	IF	Citations
386	Engineering multiple species-like genetic incompatibilities in insects. Nature Communications, 2020, 11, 4468.	5.8	31
387	Non-viral Gene Disruption by CRISPR/Cas9 Delivery Using Cell-permeable and Protein-stabilizing 30Kc19 Protein. Biotechnology and Bioprocess Engineering, 2020, 25, 724-733.	1.4	4
388	Generation of desminopathy in rats using CRISPRâ€Cas9. Journal of Cachexia, Sarcopenia and Muscle, 2020, 11, 1364-1376.	2.9	14
389	Complex Chromatin Motions for DNA Repair. Frontiers in Genetics, 2020, 11, 800.	1.1	24
390	Methods Favoring Homology-Directed Repair Choice in Response to CRISPR/Cas9 Induced-Double Strand Breaks. International Journal of Molecular Sciences, 2020, 21, 6461.	1.8	109
391	Various Aspects of a Gene Editing Systemâ€"CRISPRâ€"Cas9. International Journal of Molecular Sciences, 2020, 21, 9604.	1.8	57
392	Global and Local Manipulation of DNA Repair Mechanisms to Alter Site-Specific Gene Editing Outcomes in Hematopoietic Stem Cells. Frontiers in Genome Editing, 2020, 2, 601541.	2.7	8
393	Multiplexed Functional Assessment of Genetic Variants in CARD11. American Journal of Human Genetics, 2020, 107, 1029-1043.	2.6	38
394	Design of efficacious somatic cell genome editing strategies for recessive and polygenic diseases. Nature Communications, 2020, 11, 6277.	5.8	7
395	Alcohol Sensitivity as an Endophenotype of Alcohol Use Disorder: Exploring Its Translational Utility between Rodents and Humans. Brain Sciences, 2020, 10, 725.	1.1	12
396	Functional Genomics in Pancreatic Î² Cells: Recent Advances in Gene Deletion and Genome Editing Technologies for Diabetes Research. Frontiers in Endocrinology, 2020, 11, 576632.	1.5	13
397	CRISPR-Cas Tools and Their Application in Genetic Engineering of Human Stem Cells and Organoids. Cell Stem Cell, 2020, 27, 705-731.	5.2	95
398	A catalogue of biochemically diverse CRISPR-Cas9 orthologs. Nature Communications, 2020, 11, 5512.	5.8	116
399	Optical Manipulation of CRISPR/Cas9 Functions: From Ultraviolet to Near-Infrared Light. , 2020, 2, 644-653.		22
400	CRISPR/Cas9-Mediated Integration of Large Transgene into Pig CEP112 Locus. G3: Genes, Genomes, Genetics, 2020, 10, 467-473.	0.8	21
401	Efficient correction of a deleterious point mutation in primary horse fibroblasts with CRISPR-Cas9. Scientific Reports, 2020, 10, 7411.	1.6	8
402	An engineered ScCas9 with broad PAM range and high specificity and activity. Nature Biotechnology, 2020, 38, 1154-1158.	9.4	93
403	Detection of Deleterious On-Target Effects after HDR-Mediated CRISPR Editing. Cell Reports, 2020, 31, 107689.	2.9	90

#	Article	IF	Citations
404	Suppression of unwanted CRISPR-Cas9 editing by co-administration of catalytically inactivating truncated guide RNAs. Nature Communications, 2020, 11, 2697.	5.8	42
405	A pH-responsive silicaâ€“metalâ€“organic framework hybrid nanoparticle for the delivery of hydrophilic drugs, nucleic acids, and CRISPR-Cas9 genome-editing machineries. Journal of Controlled Release, 2020, 324, 194-203.	4.8	55
406	Loss of heterozygosity of essential genes represents a widespread class of potential cancer vulnerabilities. Nature Communications, 2020, 11, 2517.	5.8	60
407	CHST6 mutations identified in Iranian MCD patients and CHST6 mutations reported worldwide identify targets for gene editing approaches including the CRISPR/Cas system. International Ophthalmology, 2020, 40, 2223-2235.	0.6	2
408	Genome Editing Fidelity in the Context of DNA Sequence and Chromatin Structure. Frontiers in Cell and Developmental Biology, 2020, 8, 319.	1.8	11
409	Bio-Layer Interferometry Analysis of the Target Binding Activity of CRISPR-Cas Effector Complexes. Frontiers in Molecular Biosciences, 2020, 7, 98.	1.6	39
410	Rapid Evaluation of CRISPR Guides and Donors for Engineering Mice. Genes, 2020, 11, 628.	1.0	7
411	MCM8IP activates the MCM8-9 helicase to promote DNA synthesis and homologous recombination upon DNA damage. Nature Communications, 2020, 11, 2948.	5.8	28
412	Genome editing with CRISPRâ€“Cas nucleases, base editors, transposases and prime editors. Nature Biotechnology, 2020, 38, 824-844.	9.4	1,277
413	Orthotopic T-Cell Receptor Replacementâ€”An â€œEnablerâ€•for TCR-Based Therapies. Cells, 2020, 9, 1367.	1.8	12
414	Synergistic gene editing in human iPS cells via cell cycle and DNA repair modulation. Nature Communications, 2020, 11, 2876.	5.8	31
415	Determinants of Base Editing Outcomes from Target Library Analysis and Machine Learning. Cell, 2020, 182, 463-480.e30.	13.5	166
416	Mitigating off-target effects in CRISPR/Cas9-mediated in vivo gene editing. Journal of Molecular Medicine, 2020, 98, 615-632.	1.7	66
417	Regulation of the RNAPII Pool Is Integral to the DNA Damage Response. Cell, 2020, 180, 1245-1261.e21.	13.5	116
418	The Histone Chaperone FACT Induces Cas9 Multi-turnover Behavior and Modifies Genome Manipulation in Human Cells. Molecular Cell, 2020, 79, 221-233.e5.	4.5	28
419	Toward a translationally independent RNA-based synthetic oscillator using deactivated CRISPR-Cas. Nucleic Acids Research, 2020, 48, 8165-8177.	6.5	18
420	CRISPR in livestock: From editing to printing. Theriogenology, 2020, 150, 247-254.	0.9	48
421	Variation in RARG increases susceptibility to doxorubicin-induced cardiotoxicity in patient specific induced pluripotent stem cell-derived cardiomyocytes. Scientific Reports, 2020, 10, 10363.	1.6	34

#	Article	IF	Citations
422	Progress and challenges towards CRISPR/Cas clinical translation. Advanced Drug Delivery Reviews, 2020, 154-155, 176-186.	6.6	33
423	The novel insight into the outcomes of CRISPR/Cas9 editing intra- and inter-species. International Journal of Biological Macromolecules, 2020, 163, 711-717.	3.6	7
424	Applications of Functional Genomics for Drug Discovery. SLAS Discovery, 2020, 25, 823-842.	1.4	6
425	Dynamic Genome Editing Using In Vivo Synthesized Donor ssDNA in Escherichia coli. Cells, 2020, 9, 467.	1.8	2
426	CRISPR/Cas9â€mediated genome editing: From basic research to translational medicine. Journal of Cellular and Molecular Medicine, 2020, 24, 3766-3778.	1.6	61
427	Allele-specific expression changes dynamically during T cell activation in HLA and other autoimmune loci. Nature Genetics, 2020, 52, 247-253.	9.4	85
428	Synthetic CRISPR/Cas9 reagents facilitate genome editing and homology directed repair. Nucleic Acids Research, 2020, 48, e38-e38.	6.5	34
429	Pervasive head-to-tail insertions of DNA templates mask desired CRISPR-Cas9â€“mediated genome editing events. Science Advances, 2020, 6, eaax2941.	4.7	62
430	TIRR: a potential front runner in HDR raceâ˜hypotheses and perspectives. Molecular Biology Reports, 2020, 47, 2371-2379.	1.0	5
431	Treatment-Induced Tumor Dormancy through YAP-Mediated Transcriptional Reprogramming of the Apoptotic Pathway. Cancer Cell, 2020, 37, 104-122.e12.	7.7	267
432	CRISPR/Cas9-mediated precise genome modification by a long ssDNA template in zebrafish. BMC Genomics, 2020, 21, 67.	1.2	45
433	A transcomplementing gene drive provides a flexible platform for laboratory investigation and potential field deployment. Nature Communications, 2020, 11, 352.	5.8	61
434	Generation of an isogenic gene-corrected iPSC line (PUMCHi001-A-1) from a familial partial lipodystrophy type 2 (FPLD2) patient with a heterozygous R349W mutation in the LMNA gene. Stem Cell Research, 2020, 44, 101753.	0.3	2
435	Timed inhibition of CDC7 increases CRISPR-Cas9 mediated templated repair. Nature Communications, 2020, 11, 2109.	5.8	84
436	Simple Protocol for Generating and Genotyping Genomeâ€Edited Mice With CRISPRâ€Cas9 Reagents. Current Protocols in Mouse Biology, 2020, 10, e69.	1.2	18
437	Modeling Psychiatric Disorder Biology with Stem Cells. Current Psychiatry Reports, 2020, 22, 24.	2.1	25
438	A high-content RNAi screen reveals multiple roles for long noncoding RNAs in cell division. Nature Communications, 2020, 11, 1851.	5.8	43
439	New Additions to the CRISPR Toolbox: CRISPR-CLONInG and CRISPR-CLIP for Donor Construction in Genome Editing. CRISPR Journal, 2020, 3, 109-122.	1.4	8

#	Article	IF	Citations
440	Rational Selection of CRISPR-Cas9 Guide RNAs for Homology-Directed Genome Editing. Molecular Therapy, 2021, 29, 1057-1069.	3.7	29
441	Simultaneous Dualâ€Gene Diagnosis of SARSâ€CoVâ€2 Based on CRISPR/Cas9â€Mediated Lateral Flow Assay. Angewandte Chemie - International Edition, 2021, 60, 5307-5315.	7.2	215
442	Lipid nanoparticles loaded with ribonucleoproteinâ€“oligonucleotide complexes synthesized using a microfluidic device exhibit robust genome editing and hepatitis B virus inhibition. Journal of Controlled Release, 2021, 330, 61-71.	4.8	54
443	Rational Selection of CRISPR-Cas Triggering Homology-Directed Repair in Human Cells. Human Gene Therapy, 2021, 32, 302-309.	1.4	2
444	Simultaneous Dualâ€Gene Diagnosis of SARSâ€CoVâ€2 Based on CRISPR/Cas9â€Mediated Lateral Flow Assay. Angewandte Chemie, 2021, 133, 5367-5375.	1.6	29
445	Generation of mouse conditional knockout alleles in one step using the i-GONAD method. Genome Research, 2021, 31, 121-130.	2.4	17
446	Recent advances in chemical modifications of guide RNA, mRNA and donor template for CRISPR-mediated genome editing. Advanced Drug Delivery Reviews, 2021, 168, 246-258.	6.6	39
447	Epigenetic Reprogramming During Mouse Embryogenesis. Methods in Molecular Biology, 2021, , .	0.4	1
448	Generation of Mouse Model (KI and CKO) via Easi-CRISPR. Methods in Molecular Biology, 2021, 2224, 1-27.	0.4	9
449	Biallelic UBE4A loss-of-function variants cause intellectual disability and global developmental delay. Genetics in Medicine, 2021, 23, 661-668.	1.1	2
450	Target binding and residence: a new determinant of DNA double-strand break repair pathway choice in CRISPR/Cas9 genome editing. Journal of Zhejiang University: Science B, 2021, 22, 73-86.	1.3	16
451	Precision genome editing using cytosine and adenine base editors in mammalian cells. Nature Protocols, 2021, 16, 1089-1128.	5.5	90
452	Modification of Cas9, gRNA and PAM: Key to further regulate genome editing and its applications. Progress in Molecular Biology and Translational Science, 2021, 178, 85-98.	0.9	8
453	CRISPR-mediated Labeling of Cells in Chick Embryos Based on Selectively Expressed Genes. Bio-protocol, 2021, 11, e4105.	0.2	3
454	NRL â^'/â^' gene edited human embryonic stem cells generate rod-deficient retinal organoids enriched in S-cone-like photoreceptors. Stem Cells, 2021, 39, 414-428.	1.4	19
455	CRISPR/Cas9-Mediated Genome Editing to Generate Clonal iPSC Lines. Methods in Molecular Biology, 2021, , 589-606.	0.4	3
456	Corynebacterium glutamicum as a robust microbial factory for production of value-added proteins and small molecules: fundamentals and applications. , 2021, , 235-263.		5
457	The origins and consequences of UPF1 variants in pancreatic adenosquamous carcinoma. ELife, 2021, 10, .	2.8	8

#	Article	IF	Citations
458	Use of hiPSC to explicate genomic predisposition to anthracycline-induced cardiotoxicity. Pharmacogenomics, 2021, 22, 41-54.	0.6	4
459	Progress and challenges in CRISPR-mediated therapeutic genome editing for monogenic diseases. Journal of Biomedical Research, 2021, 35, 148.	0.7	6
461	Microbial single-strand annealing proteins enable CRISPR gene-editing tools with improved knock-in efficiencies and reduced off-target effects. Nucleic Acids Research, 2021, 49, e36-e36.	6.5	17
462	Modulation of ATXN1 S776 phosphorylation reveals the importance of allele-specific targeting in SCA1. JCI Insight, 2021, 6, .	2.3	12
463	MAP2 is differentially phosphorylated in schizophrenia, altering its function. Molecular Psychiatry, 2021, 26, 5371-5388.	4.1	13
465	Efficient CRISPR-Cas9-Mediated Knock-In of Composite Tags in Zebrafish Using Long ssDNA as a Donor. Frontiers in Cell and Developmental Biology, 2020, 8, 598634.	1.8	27
466	Generation of Keratinocytes from Human Induced Pluripotent Stem Cells Under Defined Culture Conditions. Cellular Reprogramming, 2021, 23, 1-13.	0.5	10
467	Programmable C:G to G:C genome editing with CRISPR-Cas9-directed base excision repair proteins. Nature Communications, 2021, 12, 1384.	5.8	117
468	Bispecific antibodies targeting mutant RAS neoantigens. Science Immunology, 2021, 6, .	5.6	106
469	CRISPR/Cas: Advances, Limitations, and Applications for Precision Cancer Research. Frontiers in Medicine, 2021, 8, 649896.	1.2	48
472	Fine-tuning p53 activity by modulating the interaction between eukaryotic translation initiation factor eIF4E and RNA-binding protein RBM38. Genes and Development, 2021, 35, 542-555.	2.7	6
474	Genome editing using CRISPR/Cas9 to treat hereditary hematological disorders. Gene Therapy, 2022, 29, 207-216.	2.3	10
475	Systematic analysis of factors that improve homologous direct repair (HDR) efficiency in CRISPR/Cas9 technique. PLoS ONE, 2021, 16, e0247603.	1.1	19
477	Genome oligopaint via local denaturation fluorescence in situ hybridization. Molecular Cell, 2021, 81, 1566-1577.e8.	4.5	19
480	CaBagE: A Cas9-based Background Elimination strategy for targeted, long-read DNA sequencing. PLoS ONE, 2021, 16, e0241253.	1.1	17
483	Single-strand template repair: key insights to increase the efficiency of gene editing. Current Genetics, 2021, 67, 747-753.	0.8	14
484	Optimizing glyphosate tolerance in rapeseed by CRISPR/Cas9-based geminiviral donor DNA replicon system with Csy4-based single-guide RNA processing. Journal of Experimental Botany, 2021, 72, 4796-4808.	2.4	18
485	CRISPR-Mediated Strand Displacement Logic Circuits with Toehold-Free DNA. ACS Synthetic Biology, 2021, 10, 950-956.	1.9	10

#	Article	IF	Citations
486	Advances in Genome Editing and Application to the Generation of Genetically Modified Rat Models. Frontiers in Genetics, 2021, 12, 615491.	1.1	24
488	A Consensus Model of Homology-Directed Repair Initiated by CRISPR/Cas Activity. International Journal of Molecular Sciences, 2021, 22, 3834.	1.8	3
489	Chlamydomonas POLQ is necessary for CRISPR/Cas9-mediated gene targeting. G3: Genes, Genomes, Genetics, 2021, 11, .	0.8	13
491	Tracking cell lineages to improve research reproducibility. Nature Biotechnology, 2021, 39, 666-670.	9.4	3
492	Impact of chromatin context on Cas9-induced DNA double-strand break repair pathway balance. Molecular Cell, 2021, 81, 2216-2230.e10.	4.5	106
493	A stress-free strategy to correct point mutations in patient iPS cells. Stem Cell Research, 2021, 53, 102332.	0.3	4
497	Homology-based repair induced by CRISPR-Cas nucleases in mammalian embryo genome editing. Protein and Cell, 2022, 13, 316-335.	4.8	17
498	Overarching control of autophagy and DNA damage response by CHD6 revealed by modeling a rare human pathology. Nature Communications, 2021, 12, 3014.	5.8	16
499	Allâ€inâ€One Dendrimerâ€Based Lipid Nanoparticles Enable Precise HDRâ€Mediated Gene Editing In Vivo. Advanced Materials, 2021, 33, e2006619.	11.1	52
500	Deep Sequencing Reveals the Comprehensive CRISPR-Cas9 Editing Spectrum in Bombyx mori. CRISPR Journal, 2021, 4, 371-380.	1.4	5
501	Comprehensive optimization of a reporter assay toolbox for three distinct CRISPRâ€Cas systems. FEBS Open Bio, 2021, 11, 1965-1980.	1.0	1
502	Comparison of Cas9 and Cas12a CRISPR editing methods to correct the W1282X-CFTR mutation. Journal of Cystic Fibrosis, 2022, 21, 181-187.	0.3	17
503	Sequence modification on demand: search and replace tools for precise gene editing in plants. Transgenic Research, 2021, 30, 353-379.	1.3	7
504	Age-dependent transition from islet insulin hypersecretion to hyposecretion in mice with the long QT-syndrome loss-of-function mutation Kcnq1-A340V. Scientific Reports, 2021, 11, 12253.	1.6	10
505	Mechanisms driving chromosomal translocations: lost in time and space. Oncogene, 2021, 40, 4263-4270.	2.6	21
506	Targeted delivery of CRISPR-Cas9 and transgenes enables complex immune cell engineering. Cell Reports, 2021, 35, 109207.	2.9	91
507	A synthetic RNA-mediated evolution system in yeast. Nucleic Acids Research, 2021, 49, e88-e88.	6.5	17
508	Spatiotemporal control of CRISPR/Cas9 gene editing. Signal Transduction and Targeted Therapy, 2021, 6, 238.	7.1	73

#	Article	IF	Citations
509	Lowering DNA binding affinity of SssI DNA methyltransferase does not enhance the specificity of targeted DNA methylation in E. coli. Scientific Reports, 2021, 11, 15226.	1.6	4
511	CalTrack: High-Throughput Automated Calcium Transient Analysis in Cardiomyocytes. Circulation Research, 2021, 129, 326-341.	2.0	31
514	capCLIP: a new tool to probe translational control in human cells through capture and identification of the eIF4Eâ€“mRNA interactome. Nucleic Acids Research, 2021, 49, e105-e105.	6.5	15
515	High-fidelity detection of DNA combining the CRISPR/Cas9 system and hairpin probe. Biosensors and Bioelectronics, 2021, 184, 113212.	5.3	18
516	Strengthening the CARâ€T cell therapeutic application using CRISPR/Cas9 technology. Biotechnology and Bioengineering, 2021, 118, 3691-3705.	1.7	13
517	Single nucleotide replacement in the Atlantic salmon genome using CRISPR/Cas9 and asymmetrical oligonucleotide donors. BMC Genomics, 2021, 22, 563.	1.2	8
518	Lentiviral Vectors for Delivery of Gene-Editing Systems Based on CRISPR/Cas: Current State and Perspectives. Viruses, 2021, 13, 1288.	1.5	44
519	Paving the way towards precise and safe CRISPR genome editing. Biotechnology Advances, 2021, 49, 107737.	6.0	19
520	Effects of sgRNA length and number on gene editing efficiency and predicted mutations generated in rice. Crop Journal, 2022, 10, 577-581.	2.3	9
521	CRISPR/ Cas9 Off-targets: Computational Analysis of Causes, Prediction, Detection, and Overcoming Strategies. Current Bioinformatics, 2022, 17, 119-132.	0.7	3
522	Present and future prospects for wheat improvement through genome editing and advanced technologies. Plant Communications, 2021, 2, 100211.	3.6	46
525	In vivo targeted delivery of nucleic acids and CRISPR genome editors enabled by GSH-responsive silica nanoparticles. Journal of Controlled Release, 2021, 336, 296-309.	4.8	42
527	CRISPR/Cas9-based directed evolution in mammalian cells. Current Opinion in Structural Biology, 2021, 69, 35-40.	2.6	6
529	Efficient Generation of Knock-In Zebrafish Models for Inherited Disorders Using CRISPR-Cas9 Ribonucleoprotein Complexes. International Journal of Molecular Sciences, 2021, 22, 9429.	1.8	10
530	Epicardial differentiation drives fibro-fatty remodeling in arrhythmogenic cardiomyopathy. Science Translational Medicine, 2021, 13, eabf2750.	5.8	16
531	Deciphering pathogenicity of variants of uncertain significance with CRISPR-edited iPSCs. Trends in Genetics, 2021, 37, 1109-1123.	2.9	14
533	Tissue Specific DNA Repair Outcomes Shape the Landscape of Genome Editing. Frontiers in Genetics, 2021, 12, 728520.	1.1	11
535	Progress in Gene-Editing Technology of Zebrafish. Biomolecules, 2021, 11, 1300.	1.8	12

#	Article	IF	Citations
536	Optimized design parameters for CRISPR Cas9 and Cas12a homology-directed repair. Scientific Reports, 2021, 11, 19482.	1.6	43
537	Cas9 conjugate complex delivering donor DNA for efficient gene editing by homology-directed repair. Journal of Industrial and Engineering Chemistry, 2021, 102, 241-250.	2.9	3
538	Use of CRISPR/Cas ribonucleoproteins for high throughput gene editing of induced pluripotent stem cells. Methods, 2021, 194, 18-29.	1.9	7
539	CRISPR-Cas9 correction of OPA1 c.1334G>A: p.R445H restores mitochondrial homeostasis in dominant optic atrophy patient-derived iPSCs. Molecular Therapy - Nucleic Acids, 2021, 26, 432-443.	2.3	21
540	A cost efficient protocol to introduce epitope tags by CRISPR-Cas9 mediated gene knock-in with asymmetric semi-double stranded template. MethodsX, 2021, 8, 101365.	0.7	2
541	DGK and DZHK position paper on genome editing: basic science applications and future perspective. Basic Research in Cardiology, 2021, 116, 2.	2.5	5
542	Targeted Transgenic Mice Using CRISPR/Cas9 Technology. Methods in Molecular Biology, 2021, 2214, 125-141.	0.4	8
543	Generation of Knock-in Mouse by Genome Editing. Methods in Molecular Biology, 2017, 1630, 91-100.	0.4	5
544	Genotyping Genetically Modified (GM) Mice. Methods in Molecular Biology, 2020, 2066, 133-148.	0.4	1
545	Using Genome Engineering to Understand Huntingtonâ€™s Disease. Research and Perspectives in Neurosciences, 2017, , 87-101.	0.4	5
546	CRISPR-Cas systems: Overview, innovations and applications in human disease research and gene therapy. Computational and Structural Biotechnology Journal, 2020, 18, 2401-2415.	1.9	100
547	Inhibition of 53BP1 favors homology-dependent DNA repair and increases CRISPRâ€“Cas9 genome-editing efficiency. Nature Biotechnology, 2018, 36, 95-102.	9.4	206
548	Making the cut(s): how Cas12a cleaves target and non-target DNA. Biochemical Society Transactions, 2019, 47, 1499-1510.	1.6	35
549	Real-time observation of Cas9 postcatalytic domain motions. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2010650118.	3.3	17
550	PQLC2 recruits the C9orf72 complex to lysosomes in response to cationic amino acid starvation. Journal of Cell Biology, 2020, 219, .	2.3	42
551	Highly efficient RNAi and Cas9-based auto-cloning systems for C. elegans research. Nucleic Acids Research, 2018, 46, e105-e105.	6.5	51
552	High-efficiency nonhomologous insertion of a foreign gene into the herpes simplex virus genome. Journal of General Virology, 2020, 101, 982-996.	1.3	7
593	Unbiased detection of CRISPR off-targets in vivo using DISCOVER-Seq. Science, 2019, 364, 286-289.	6.0	284

#	Article	IF	Citations
594	The genome editing revolution: review. Journal of Genetic Engineering and Biotechnology, 2020, 18, 68.	1.5	119
595	Efficient and versatile CRISPR engineering of human neurons in culture to model neurological disorders. Wellcome Open Research, 2016, 1, 13.	0.9	38
596	Luminescent peptide tagging enables efficient screening for CRISPR-mediated knock-in in human induced pluripotent stem cells. Wellcome Open Research, 0, 4, 37.	0.9	3
597	Luminescent peptide tagging enables efficient screening for CRISPR-mediated knock-in in human induced pluripotent stem cells. Wellcome Open Research, 2019, 4, 37.	0.9	3
598	CRISPR-based strategies for targeted transgene knock-in and gene correction. Faculty Reviews, 2020, 9, 20.	1.7	8
599	P.F508del editing in cells from cystic fibrosis patients. PLoS ONE, 2020, 15, e0242094.	1.1	11
600	Advances and perspectives in the application of CRISPR/Cas9 in insects. Zoological Research, 2016, 37, 220-8.	0.6	14
601	CRISPR and Target-Specific DNA Endonucleases for Efficient DNA Knock-in in Eukaryotic Genomes. Molecules and Cells, 2018, 41, 943-952.	1.0	22
602	Engineering essential genes with a "jump board" strategy using CRISPR/Cas9. MicroPublication Biology, 2020, 2020, .	0.1	4
603	Digenic mutations on SCAP and AGXT2 predispose to premature myocardial infarction. Oncotarget, 2017, 8, 100141-100149.	0.8	5
604	The CRISPR Growth Spurt: from Bench to Clinic on Versatile Small RNAs. Journal of Microbiology and Biotechnology, 2017, 27, 207-218.	0.9	17
605	RNAi-mediated control of CRISPR functions. Theranostics, 2020, 10, 6661-6673.	4.6	10
606	Rare missense variants in the human cytosolic antibody receptor preserve antiviral function. ELife, 2019, 8, .	2.8	9
607	An efficient CRISPR-based strategy to insert small and large fragments of DNA using short homology arms. ELife, 2019, 8, .	2.8	105
608	Genome editing enables reverse genetics of multicellular development in the choanoflagellate Salpingoeca rosetta. ELife, 2020, 9, .	2.8	29
609	KDM5A mutations identified in autism spectrum disorder using forward genetics. ELife, 2020, 9, .	2.8	27
610	How to measure and evaluate binding affinities. ELife, 2020, 9, .	2.8	251
611	Characterization of the mechanism by which the RB/E2F pathway controls expression of the cancer genomic DNA deaminase APOBEC3B. ELife, 2020, 9, .	2.8	25

#	Article	IF	Citations
612	Enhanced genome editing in human iPSCs with CRISPR-CAS9 by co-targetingATP1a1. PeerJ, 2020, 8, e9060.	0.9	10
614	Functional assessment of somatic STK11 variants identified in primary human non-small cell lung cancers. Carcinogenesis, 2021, 42, 1428-1438.	1.3	5
615	Probing the stability of the SpCas9â€“DNA complex after cleavage. Nucleic Acids Research, 2021, 49, 12411-12421.	6.5	11
617	5â€²-Modifications improve potency and efficacy of DNA donors for precision genome editing. ELife, 2021, 10, .	2.8	30
618	Unravelling roles of error-prone DNA polymerases in shaping cancer genomes. Oncogene, 2021, 40, 6549-6565.	2.6	14
619	Characterising mechanisms of aberrant androgen receptor signalling in advanced prostate cancer. Endocrine Abstracts, 0, , .	0.0	0
622	IMPROVING THE FUNCTION OF CRISPR-CAS9 FOR GENOME EDITING THERAPY: EDITING THE EDITOR. Jurnal Bioteknologi & Biosains Indonesia (JBBI), 2017, 4, 44.	0.1	0
626	Engineering of Human-Induced Pluripotent Stem Cells for Precise Disease Modeling. , 2018, , 369-411.		0
634	CRISPR-based Technologies for Genome Engineering: Properties, Current Improvements and Applications in Medicine. RSC Drug Discovery Series, 2019, , 400-433.	0.2	1
635	Improvement of the knock-in effciency in the genome of human induced pluripotent stem cells using the CRISPR/Cas9 system. Vavilovskii Zhurnal Genetiki I Selektsii, 2019, 22, 1026-1032.	0.4	0
638	Luminescent peptide tagging enables efficient screening for CRISPR-mediated knock-in in human induced pluripotent stem cells. Wellcome Open Research, 2019, 4, 37.	0.9	2
654	Nanoscale delivery of phytochemicals targeting CRISPR/Cas9 for cancer therapy. Phytomedicine, 2021, 94, 153830.	2.3	2
655	CRISPR-Cas-Mediated Tethering Recruits the Yeast HMR Mating-Type Locus to the Nuclear Periphery but Fails to Silence Gene Expression. ACS Synthetic Biology, 2021, 10, 2870-2877.	1.9	0
656	Delivery of CRISPR/Cas9 Plasmids by Cationic Gold Nanorods: Impact of the Aspect Ratio on Genome Editing and Treatment of Hepatic Fibrosis. Chemistry of Materials, 2021, 33, 81-91.	3.2	20
657	Homology-directed repair in mouse cells increased by CasRx-mediated knockdown or co-expressing Kaposiâ€™s sarcoma-associated herpesvirus ORF52. Bioscience Reports, 2019, 39, .	1.1	3
664	Systematic overview on the most widespread techniques for inducing and visualizing the DNA double-strand breaks. Mutation Research - Reviews in Mutation Research, 2021, 788, 108397.	2.4	5
665	Systemic biodistribution and hepatocyte-specific gene editing with CRISPR/Cas9 using hyaluronic acid-based nanoparticles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2022, 40, 102488.	1.7	5
667	BEAR reveals that increased fidelity variants can successfully reduce the mismatch tolerance of adenine but not cytosine base editors. Nature Communications, 2021, 12, 6353.	5.8	10

#	Article	IF	Citations
668	A Novel Isogenic Human Cell-Based System for MEN1 Syndrome Generated by CRISPR/Cas9 Genome Editing. International Journal of Molecular Sciences, 2021, 22, 12054.	1.8	2
669	Reprogramming of the heavy-chain CDR3 regions of a human antibody repertoire. Molecular Therapy, 2022, 30, 184-197.	3.7	8
672	Coldâ€induced chromatin compaction and nuclear retention of clock mRNAs resets the circadian rhythm. EMBO Journal, 2020, 39, e105604.	3.5	11
673	Genome Editing: Past, Present, and Future. Yale Journal of Biology and Medicine, 2017, 90, 653-659.	0.2	59
674	Nuclease-Mediated Gene Therapies for Inherited Metabolic Diseases of the Liver. Yale Journal of Biology and Medicine, 2017, 90, 553-566.	0.2	11
675	Human induced pluripotent stem cellâ€“derived keratinocyte progenitors. , 2022, , 111-132.		0
676	CRISPR/Cas System and Factors Affecting Its Precision and Efficiency. Frontiers in Cell and Developmental Biology, 2021, 9, 761709.	1.8	20
677	Adhesion G proteinâ€“coupled receptor Gpr126/Adgrg6 is essential for placental development. Science Advances, 2021, 7, eabj5445.	4.7	17
678	Applications of CRISPR-Cas Technologies to Proteomics. Genes, 2021, 12, 1790.	1.0	5
679	A Kalirin missense mutation enhances dendritic RhoA signaling and leads to regression of cortical dendritic arbors across development. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	8
682	Endothelial ARHGEF26 is an angiogenic factor promoting VEGF signalling. Cardiovascular Research, 2022, 118, 2833-2846.	1.8	3
683	Mechanistic and genetic basis of single-strand templated repair at Cas12a-induced DNA breaks in Chlamydomonas reinhardtii. Nature Communications, 2021, 12, 6751.	5.8	15
684	CRISPR/Cas and Hepatitis B Therapy: Technological Advances and Practical Barriers. Nucleic Acid Therapeutics, 2022, 32, 14-28.	2.0	4
685	Optimized electroporation of CRISPR-Cas9/gRNA ribonucleoprotein complex for selection-free homologous recombination in human pluripotent stem cells. STAR Protocols, 2021, 2, 100965.	0.5	8
686	Applications of CRISPR-Cas System in Tumor Biology. Oncologie, 2021, 23, 463-492.	0.2	1
687	Microfluidic tool for rapid functional characterization of CRISPR complexes. New Biotechnology, 2022, 68, 1-8.	2.4	3
688	CRISPA: A Non-viral, Transient Cas9 Delivery System Based on Reengineered Anthrax Toxin. Frontiers in Pharmacology, 2021, 12, 770283.	1.6	3
689	Exploitation of the ribosomal protein L10 R98S mutation to enhance recombinant protein production in mammalian cells. Engineering in Life Sciences, 2022, 22, 100-114.	2.0	0

#	Article	IF	Citations
690	An update on precision genome editing by homology-directed repair in plants. Plant Physiology, 2022, 188, 1780-1794.	2.3	18
691	CRISPR Editing Enables Consequential Tag-Activated MicroRNA-Mediated Endogene Deactivation. International Journal of Molecular Sciences, 2022, 23, 1082.	1.8	5
692	CRISPR-based genome editing through the lens of DNA repair. Molecular Cell, 2022, 82, 348-388.	4.5	90
693	A novel mouse model of type 2N VWD was developed by CRISPR/Cas9 gene editing and recapitulates human type 2N VWD. Blood Advances, 2022, 6, 2778-2790.	2.5	1
695	Strategies for Enhancing the Homology-Directed Repair Efficiency of CRISPR-Cas Systems. CRISPR Journal, 2022, 5, 7-18.	1.4	8
696	Integrin Î±5 Is Regulated by miR-218-5p in Endothelial Progenitor Cells. Journal of the American Society of Nephrology: JASN, 2022, 33, 565-582.	3.0	4
697	Bacterial Retrons Enable Precise Gene Editing in Human Cells. CRISPR Journal, 2022, 5, 31-39.	1.4	22
698	Protocol: A Multiplexed Reporter Assay to Study Effects of Chromatin Context on DNA Double-Strand Break Repair. Frontiers in Genetics, 2021, 12, 785947.	1.1	1
699	Challenges of CRISPR-Based Gene Editing in Primary T Cells. International Journal of Molecular Sciences, 2022, 23, 1689.	1.8	10
700	Establishment of a developmental toxicity assay based on human iPSC reporter to detect FGF signal disruption. IScience, 2022, 25, 103770.	1.9	4
701	Generation of an isogenic gene-corrected iPSC line (OGHFUi001-A-1) from a type 1 early infantile epileptic encephalopathy (EIEE1) patient with a hemizygous R330L mutation in the ARX gene. Stem Cell Research, 2022, 60, 102693.	0.3	0
702	Prime editing efficiency and fidelity are enhanced in the absence of mismatch repair. Nature Communications, 2022, 13, 760.	5.8	74
703	Metabolic engineering of Escherichia coli BL21 strain using simplified CRISPR-Cas9 and asymmetric homology arms recombineering. Microbial Cell Factories, 2022, 21, 19.	1.9	14
705	Rapid genome editing by CRISPR-Cas9-POLD3 fusion. ELife, 2021, 10, .	2.8	11
706	Considerations for homology-based DNA repair in mosquitoes: Impact of sequence heterology and donor template source. PLoS Genetics, 2022, 18, e1010060.	1.5	10
707	V5 and GFP Tagging of Viral Gene pp38 of Mareka€™s Disease Vaccine Strain CVI988 Using CRISPR/Cas9 Editing. Viruses, 2022, 14, 436.	1.5	0
708	Ligation-assisted homologous recombination enables precise genome editing by deploying both MMEJ and HDR. Nucleic Acids Research, 2022, 50, e62-e62.	6.5	7
709	Genome Editing of Pluripotent Stem Cells for Adoptive and Regenerative Cell Therapies. , 2022, 1, 77-90.		0

#	Article	IF	Citations
710	Chimeric RNA: DNA TracrRNA Improves Homology-Directed Repair In Vitro and In Vivo. CRISPR Journal, 2022, 5, 40-52.	1.4	1
711	Methods for CRISPR-Cas as Ribonucleoprotein Complex Delivery In Vivo. Molecular Biotechnology, 2023, 65, 181-195.	1.3	5
712	Antispacer peptide nucleic acids for sequence-specific CRISPR-Cas9 modulation. Nucleic Acids Research, 2022, 50, e59-e59.	6.5	7
715	A Highly Sensitive CRISPRâ€Empowered Surface Plasmon Resonance Sensor for Diagnosis of Inherited Diseases with Femtomolarâ€Level Realâ€Time Quantification. Advanced Science, 2022, 9, e2105231.	5.6	30
718	Principles and Applications of CRISPR Toolkit in Virus Manipulation, Diagnosis, and Virus-Host Interactions. Cells, 2022, 11, 999.	1.8	3
720	Target residence of Cas9: challenges and opportunities in genome editing. Genome Instability & Disease, 2022, 3, 57-69.	0.5	1
721	Gene Editing for Inherited Red Blood Cell Diseases. Frontiers in Physiology, 2022, 13, 848261.	1.3	5
722	Technical Evaluation of Commercial Sperm DFI Quality Control Products in SCSA Testing. Journal of Healthcare Engineering, 2022, 2022, 1-14.	1.1	4
723	Notch-dependent DNAcis-regulatory elements and their dose-dependent control ofC. elegansstem cell self-renewal. Development (Cambridge), 2022, 149, .	1.2	4
724	From DNA break repair pathways to CRISPR/Cas-mediated gene knock-in methods. Life Sciences, 2022, 295, 120409.	2.0	5
725	Protocellular CRISPR/Casâ€Based Diffusive Communication Using Transcriptional RNA Signaling. Angewandte Chemie - International Edition, 2022, 61, .	7.2	14
726	Protocellular CRISPR/Casâ€Based Diffusive Communication Using Transcriptional RNA Signaling. Angewandte Chemie, 2022, 134, .	1.6	0
727	InÂvivo targeting of a variant causing vanishing white matter using CRISPR/Cas9. Molecular Therapy - Methods and Clinical Development, 2022, 25, 17-25.	1.8	2
728	Gene-specific quantification of nascent transcription following targeted degradation of endogenous proteins in cultured cells. STAR Protocols, 2021, 2, 101000.	0.5	1
730	RGEN-seq for highly sensitive amplification-free screen of off-target sites of gene editors. Scientific Reports, 2021, 11, 23600.	1.6	1
731	Meiotic Cas9 expression mediates gene conversion in the male and female mouse germline. PLoS Biology, 2021, 19, e3001478.	2.6	29
733	A Versatile and Efficient Plant Protoplast Platform for Genome Editing by Cas9 RNPs. Frontiers in Genome Editing, 2021, 3, 719190.	2.7	12
734	Selective suppression of IL-10 transcription by calcineurin in dendritic cells through inactivation of CREB. International Immunology, 2022, 34, 197-206.	1.8	4

#	Article	IF	Citations
735	BCOR and BCORL1 Mutations Drive Epigenetic Reprogramming and Oncogenic Signaling by Unlinking PRC1.1 from Target Genes. Blood Cancer Discovery, 2022, 3, 116-135.	2.6	18
736	Precise genome editing across kingdoms of life using retron-derived DNA. Nature Chemical Biology, 2022, 18, 199-206.	3.9	31
737	Dissecting protein function in vivo: Engineering allelic series in mice using CRISPR-Cas9 technology. Methods in Enzymology, 2022, 667, 775-812.	0.4	5
738	Multilayered regulations of alternative splicing, NMD, and protein stability control temporal induction and tissue-specific expression of TRIM46 during axon formation. Nature Communications, 2022, 13, 2081.	5.8	8
739	Editing TINF2 as a potential therapeutic approach to restore telomere length in dyskeratosis congenita. Blood, 2022, 140, 608-618.	0.6	5
752	Chimeric oligonucleotides combining guide RNA and single-stranded DNA repair template effectively induce precision gene editing. RNA Biology, 2022, 19, 588-593.	1.5	2
753	Generating Nonmosaic Mutants in Xenopus Using CRISPRâ€“Cas in Oocytes. Cold Spring Harbor Protocols, 2022, 2022, pdb.prot106989.	0.2	2
754	Genome Engineering of Hematopoietic Stem Cells Using CRISPR/Cas9 System. Methods in Molecular Biology, 2022, 2429, 307-331.	0.4	2
756	Stepwise-edited, human melanoma models reveal mutationsâ€™ effect on tumor and microenvironment. Science, 2022, 376, eabi8175.	6.0	24
757	DNA methylation can alter CRISPR/Cas9 editing frequency and DNA repair outcome in a targetâ€specific manner. New Phytologist, 2022, 235, 2285-2299.	3.5	7
758	Comprehensive Analysis of CRISPR-Cas9 Editing Outcomes in Yeast Xanthophyllomyces dendrorhous. CRISPR Journal, 2022, 5, 558-570.	1.4	2
759	Targeted proteoform mapping uncovers specific Neurexin-3 variants required for dendritic inhibition. Neuron, 2022, 110, 2094-2109.e10.	3.8	18
760	Enhancing HR Frequency for Precise Genome Editing in Plants. Frontiers in Plant Science, 2022, 13, 883421.	1.7	4
761	Zinc transporters ZIPT-2.4 and ZIPT-15 are required for normal C. elegans fecundity. Journal of Assisted Reproduction and Genetics, 2022, 39, 1261-1276.	1.2	1
762	Targeting double-strand break indel byproducts with secondary guide RNAs improves Cas9 HDR-mediated genome editing efficiencies. Nature Communications, 2022, 13, 2351.	5.8	11
763	Rational Design of ssODN to Correct Mutations by Gene Editing. Biochemistry (Moscow), 2022, 87, 464-471.	0.7	0
764	Different hotspot p53 mutants exert distinct phenotypes and predict outcome of colorectal cancer patients. Nature Communications, 2022, 13, 2800.	5.8	21
765	The origin of unwanted editing byproducts in gene editing. Acta Biochimica Et Biophysica Sinica, 2022, 54, 767-781.	0.9	6

#	Article	IF	Citations
766	A Robust Expression and Purification Method for Production of SpCas9-GFP-MBP Fusion Protein for In Vitro Applications. Methods and Protocols, 2022, 5, 44.	0.9	1
767	Luciferase assay system to monitor fibroblast growth factor signal disruption in human iPSCs. STAR Protocols, 2022, 3, 101439.	0.5	1
768	The Choice of a Donor Molecule in Genome Editing Experiments in Animal Cells. Molecular Biology, 2022, 56, 372-381.	0.4	0
771	Computationally designed hyperactive Cas9 enzymes. Nature Communications, 2022, 13, .	5.8	8
772	CRISPR-AsCas12a Efficiently Corrects a GPR143 Intronic Mutation in Induced Pluripotent Stem Cells from an Ocular Albinism Patient. CRISPR Journal, 2022, 5, 457-471.	1.4	1
775	CRISPR-Cas9-Based Technology and Its Relevance to Gene Editing in Parkinsonâ€™s Disease. Pharmaceutics, 2022, 14, 1252.	2.0	18
776	Tools and targets: The dual role of plant viruses in CRISPRâ€“Cas genome editing. Plant Genome, 2023, 16, .	1.6	17
778	Application of Gene Editing Technology in Resistance Breeding of Livestock. Life, 2022, 12, 1070.	1.1	8
779	Quantitative proteomic landscapes of primary and recurrent glioblastoma reveal a protumorigeneic role for FBXO2-dependent glioma-microenvironment interactions. Neuro-Oncology, 2023, 25, 290-302.	0.6	8
780	Optimizing CRISPR/Cas9 Editing of Repetitive Single Nucleotide Variants. Frontiers in Genome Editing, 0, 4, .	2.7	4
781	Cytoplasmic Injection of Zygotes to Genome Edit Naturally Occurring Sequence Variants Into Bovine Embryos. Frontiers in Genetics, 0, 13, .	1.1	1
783	DNA nicks induce mutational signatures associated with BRCA1 deficiency. Nature Communications, 2022, 13, .	5.8	8
784	CRISPR/Cas9-mediated epigenetic editing tool: An optimized strategy for targeting de novo DNA methylation with stable status via homology directed repair pathway. Biochimie, 2022, 202, 190-205.	1.3	3
786	Transcription-coupled donor DNA expression increases homologous recombination for efficient genome editing. Nucleic Acids Research, 2022, 50, e109-e109.	6.5	3
787	Target residence of Cas9-sgRNA influences DNA double-strand break repair pathway choices in CRISPR/Cas9 genome editing. Genome Biology, 2022, 23, .	3.8	9
788	PIWI-Interacting RNA (piRNA) and Epigenetic Editing in Environmental Health Sciences. Current Environmental Health Reports, 2022, 9, 650-660.	3.2	4
789	FACS-assisted CRISPR-Cas9 genome editing of human induced pluripotent stem cells. STAR Protocols, 2022, 3, 101680.	0.5	5
790	Utilizing Directed Evolution to Interrogate and Optimize CRISPR/Cas Guide RNA Scaffolds. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	Citations
791	Plasmid-Based CRISPRâ€“Cas9 Editing in Multiple Candida Species. Methods in Molecular Biology, 2022, , 13-40.	0.4	3
793	An Ultrasensitive, One-Pot RNA Detection Method Based on Rationally Engineered Cas9 Nickase-Assisted Isothermal Amplification Reaction. Analytical Chemistry, 2022, 94, 12461-12471.	3.2	7
795	Quantification of Genome Editing and Transcriptional Control Capabilities Reveals Hierarchies among Diverse CRISPR/Cas Systems in Human Cells. ACS Synthetic Biology, 2022, 11, 3239-3250.	1.9	9
796	Gene editing monkeys: Retrospect and outlook. Frontiers in Cell and Developmental Biology, 0, 10, .	1.8	1
797	Temperature dependent in vitro binding and release of target DNA by Cas9 enzyme. Scientific Reports, 2022, 12, .	1.6	8
798	Efficient Homology-Directed Repair with Circular Single-Stranded DNA Donors. CRISPR Journal, 2022, 5, 685-701.	1.4	16
799	Cas9 targeted nanopore sequencing with enhanced variant calling improves CYP2D6-CYP2D7 hybrid allele genotyping. PLoS Genetics, 2022, 18, e1010176.	1.5	12
800	CRISPR/Cas9â€"A Promising Therapeutic Tool to Cure Blindness: Current Scenario and Future Prospects. International Journal of Molecular Sciences, 2022, 23, 11482.	1.8	8
801	RNA-Responsive gRNAs for Controlling CRISPR Activity: Current Advances, Future Directions, and Potential Applications. CRISPR Journal, 2022, 5, 642-659.	1.4	5
802	A noncoding single-nucleotide polymorphism at 8q24 drives IDH1 -mutant glioma formation. Science, 2022, 378, 68-78.	6.0	20
804	Frankenstein Cas9: engineering improved gene editing systems. Biochemical Society Transactions, 2022, 50, 1505-1516.	1.6	2
805	Application of CRISPR for In Vivo Mouse Cancer Studies. Cancers, 2022, 14, 5014.	1.7	6
806	Translation Rescue by Targeting Ppp1r15a through Its Upstream Open Reading Frame in Sepsis-Induced Acute Kidney Injury in a Murine Model. Journal of the American Society of Nephrology: JASN, 2023, 34, 220-240.	3.0	5
807	Gold Nanoparticle-Mediated Gene Therapy. Cancers, 2022, 14, 5366.	1.7	7
809	Accurate diagnosis of prostate cancer with CRISPR-based nucleic acid test strip by simultaneously identifying PCA3 and KLK3 genes. Biosensors and Bioelectronics, 2023, 220, 114854.	5.3	2
811	Gene targeting as a therapeutic avenue in diseases mediated by the complement alternative pathway. Immunological Reviews, 2023, 313, 402-419.	2.8	10
813	A general approach to identify cell-permeable and synthetic anti-CRISPR small molecules. Nature Cell Biology, 2022, 24, 1766-1775.	4.6	5
814	Improvements in the genetic editing technologies: CRISPR-Cas and beyond. Gene, 2023, 852, 147064.	1.0	1

#	Article	IF	Citations
816	Highly Efficient CRISPR/Cas9â€Mediated Genome Editing in Human Pluripotent Stem Cells. Current Protocols, 2022, 2, .	1.3	8
817	Neuron-specific protein network mapping of autism risk genes identifies shared biological mechanisms and disease-relevant pathologies. Cell Reports, 2022, 41, 111678.	2.9	17
818	CRISPR-Based Tools for Fighting Rare Diseases. Life, 2022, 12, 1968.	1.1	2
820	Enabling Precision Medicine with CRISPR-Cas Genome Editing Technology: A Translational Perspective. Advances in Experimental Medicine and Biology, 2023, , 315-339.	0.8	0
821	A robust pipeline for efficient knock-in of point mutations and epitope tags in zebrafish using fluorescent PCR based screening. BMC Genomics, 2022, 23, .	1.2	3
822	Maximizing the Efficacy of CRISPR/Cas Homology-Directed Repair Gene Targeting. , 0, , .		0
823	Polarity of the CRISPR roadblock to transcription. Nature Structural and Molecular Biology, 2022, 29, 1217-1227.	3.6	9
824	Induced Pluripotent Stem Cells and Genome-Editing Tools in Determining Gene Function and Therapy for Inherited Retinal Disorders. International Journal of Molecular Sciences, 2022, 23, 15276.	1.8	1
825	Mutant Phosphodiesterase 3A Protects From Hypertension-Induced Cardiac Damage. Circulation, 2022, 146, 1758-1778.	1.6	14
828	Decorating chromatin for enhanced genome editing using CRISPR-Cas9. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	14
830	MDM2 antagonists promote CRISPR/Cas9-mediated precise genome editing in sheep primary cells. Molecular Therapy - Nucleic Acids, 2023, 31, 309-323.	2.3	1
831	Facioscapulohumeral muscular dystrophy: the road to targeted therapies. Nature Reviews Neurology, 2023, 19, 91-108.	4.9	8
832	Alternative splicing mediates the compensatory upregulation of MBNL2 upon MBNL1 loss-of-function. Nucleic Acids Research, 2023, 51, 1245-1259.	6.5	2
833	Mechanism based therapies enable personalised treatment of hypertrophic cardiomyopathy. Scientific Reports, 2022, 12, .	1.6	12
834	Decreasing mutant ATXN1 nuclear localization improves a spectrum of SCA1-like phenotypes and brain region transcriptomic profiles. Neuron, 2023, 111, 493-507.e6.	3.8	11
835	Genome Engineering in Livestock: Recent Advances and Regulatory Framework. , 2022, 3, 14-30.		2
836	Disruption of the ATXN1-CIC complex reveals the role of additional nuclear ATXN1 interactors in spinocerebellar ataxia type 1. Neuron, 2023, 111, 481-492.e8.	3.8	7
837	Generation of Knock-In Mouse by Genome Editing. Methods in Molecular Biology, 2023, , 99-109.	0.4	0

#	Article	IF	Citations
838	Genome Editing Using CRISPR. , 2023, , 1-26.		0
840	Efficient correction of ABCA4 variants by CRISPR-Cas9 in hiPSCs derived from Stargardt disease patients. Molecular Therapy - Nucleic Acids, 2023, 32, 64-79.	2.3	4
841	CRISPR technology: A decade of genome editing is only the beginning. Science, 2023, 379, .	6.0	233
842	Modulating mutational outcomes and improving precise gene editing at CRISPR-Cas9-induced breaks by chemical inhibition of end-joining pathways. Cell Reports, 2023, 42, 112019.	2.9	11
843	Incomplete Elongation of Ultra-long-chain Polyunsaturated Acyl-CoAs by the Fatty Acid Elongase ELOVL4 in Spinocerebellar Ataxia Type 34. Molecular and Cellular Biology, 2023, 43, 85-101.	1.1	1
844	Modified Bacteriophage for Tumor Detection and Targeted Therapy. Nanomaterials, 2023, 13, 665.	1.9	8
845	High-Efficiency CRISPR/Cas9-Mediated Correction of a Homozygous Mutation in Achromatopsia-Patient-Derived iPSCs. International Journal of Molecular Sciences, 2023, 24, 3655.	1.8	2
846	CRISPR/Cas9-mediated targeted knock-in of large constructs using nocodazole and RNase HII. Scientific Reports, 2023, 13, .	1.6	4
847	Current advancement in the application of prime editing. Frontiers in Bioengineering and Biotechnology, 0, 11, .	2.0	12
848	In search of an ideal template for therapeutic genome editing: A review of current developments for structure optimization. Frontiers in Genome Editing, 0, 5, .	2.7	1
849	Genetic manipulation and targeted protein degradation in mammalian systems: practical considerations, tips and tricks for discovery research. FEBS Open Bio, 2023, 13, 1164-1176.	1.0	1
850	New advances in CRISPR/Cas-mediated precise gene-editing techniques. DMM Disease Models and Mechanisms, 2023, 16, .	1.2	6
851	Gene-by-environment interactions are pervasive among natural genetic variants. Cell Genomics, 2023, 3, 100273.	3.0	5
852	Widespread epistasis among beneficial genetic variants revealed by high-throughput genome editing. Cell Genomics, 2023, 3, 100260.	3.0	7
853	Proximal binding of dCas9 at a DNA double strand break stimulates homology-directed repair as a local inhibitor of classical non-homologous end joining. Nucleic Acids Research, 2023, 51, 2740-2758.	6.5	2
856	Altered DNA repair pathway engagement by engineered CRISPR-Cas9 nucleases. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	3
858	Recent advances in CRISPR-based genome editing technology and its applications in cardiovascular research. Military Medical Research, 2023, 10, .	1.9	5
862	PTPN22 R620W gene editing in T cells enhances low-avidity TCR responses. ELife, 0, 12, .	2.8	4

#	Article	IF	Citations
863	Mapping cellular responses to DNA double-strand breaks using CRISPR technologies. Trends in Genetics, 2023, , .	2.9	0
864	Advances in CRISPR/Cas gene therapy for inborn errors of immunity. Frontiers in Immunology, 0, 14, .	2.2	5
865	Gene Editing in Mouse Zygotes Using the CRISPR/Cas9 System. Methods in Molecular Biology, 2023, , 207-230.	0.4	0
866	The CRISPR technology: A promising strategy for improving dark fermentative biohydrogen production using Clostridium spp.. International Journal of Hydrogen Energy, 2023, 48, 23498-23515.	3.8	5
867	Obesity-Linked PPARÎ³ Ser273 Phosphorylation Promotes Beneficial Effects on the Liver, despite Reduced Insulin Sensitivity in Mice. Biomolecules, 2023, 13, 632.	1.8	0
868	DNA rehybridization drives product release from Cas9 ribonucleoprotein to enable multiple-turnover cleavage. Nucleic Acids Research, 0, , .	6.5	1
869	Highâ€efficiency and multilocus targeted integration in CHO cells using CRISPRâ€mediated donor nicking and DNA repair inhibitors. Biotechnology and Bioengineering, 2023, 120, 2419-2440.	1.7	1
870	Strategies for precise gene edits in mammalian cells. Molecular Therapy - Nucleic Acids, 2023, 32, 536-552.	2.3	7
871	CasKAS: direct profiling of genome-wide dCas9 and Cas9 specificity using ssDNA mapping. Genome Biology, 2023, 24, .	3.8	2
887	Genome Editing Using CRISPR. , 2023, , 2511-2536.		0