Generation of gene-modified cynomolgus monkey via Cas9/RNA-mediated gene targeting in one-cell embryos

DOI: 10.1016/j.cell.2014.01.027
Cell, 2014, 156, 836-43.

#	Paper	IF	Citations
874	sgRNAcas9: a software package for designing CRISPR sgRNA and evaluating potential off-target cleavage sites. **2014**, 9, e100448		218
873	[The revolution of the CRISPR is underway]. **2014**, 30, 1066-9		1
872	CARF and WYL domains: ligand-binding regulators of prokaryotic defense systems. **2014**, 5, 102		118
871	Emerging functions of pannexin 1 in the eye. **2014**, 8, 263		13
870	Chapter 3 - Restoring Vision to the Blind: Gene Therapy for Vision Loss. **2014**, 3, 5		2
869	The Future of Prenatal Diagnosis and Screening. **2014**, 3, 1291-301		6
868	Every silver lining has a cloud: the scientific and animal welfare issues surrounding a new approach to the production of transgenic animals. **2014**, 42, 137-45		6
867	International regulatory landscape and integration of corrective genome editing into in vitro fertilization. **2014**, 12, 108		85
866	A CRISPR/Cas9 toolkit for multiplex genome editing in plants. **2014**, 14, 327		669
865	Allele-specific genome editing and correction of disease-associated phenotypes in rats using the CRISPR-Cas platform. **2014**, 5, 4240		140
864	Generation of Oocytes from Mouse ES/iPS Cells. **2014**, 31, 70-78		1
863	Genome typing of nonhuman primate models: implications for biomedical research. **2014**, 30, 482-7		42
862	Mind the gap: models in multiple species needed for therapeutic development in Huntington's disease. **2014**, 29, 1397-403		25
861	Next-generation models of human cardiogenesis via genome editing. **2014**, 4, a013920		3
860	CRISPR-Cas: an efficient tool for genome engineering of virulent bacteriophages. *Nucleic Acids Research*, **2014**, 42, 9504-13	20.1	98
859	Making designer mutants in model organisms. **2014**, 141, 4042-54		90
858	Generation of eGFP and Cre knockin rats by CRISPR/Cas9. **2014**, 281, 3779-90		58

857	Genome editing. The new frontier of genome engineering with CRISPR-Cas9. **2014**, 346, 1258096		3479
856	Targeted and genome-wide sequencing reveal single nucleotide variations impacting specificity of Cas9 in human stem cells. **2014**, 5, 5507		106
855	Liat1, an arginyltransferase-binding protein whose evolution among primates involved changes in the numbers of its 10-residue repeats. **2014**, 111, E4936-45		14
854	Cas9-based genome editing in zebrafish. **2014**, 546, 377-413		36
853	Efficient chromosomal gene modification with CRISPR/cas9 and PCR-based homologous recombination donors in cultured Drosophila cells. *Nucleic Acids Research*, **2014**, 42, e89	20.1	88
852	A high-throughput screening strategy for detecting CRISPR-Cas9 induced mutations using next-generation sequencing. **2014**, 15, 1002		71
851	Functional genetics for all: engineered nucleases, CRISPR and the gene editing revolution. **2014**, 5, 43		69
850	Generation of multi-gene knockout rabbits using the Cas9/gRNA system. **2014**, 3, 12		69
849	Generation of genomic deletions in mammalian cell lines via CRISPR/Cas9. **2015**, e52118		75
848	Animal models of subjective tinnitus. **2014**, 2014, 741452		33
847	Advances in genome editing technology and its promising application in evolutionary and ecological studies. **2014**, 3, 24		32
846	High-precision gene editing in monkeys is feasible. **2014**, 15, 218-218		
845	Potential impact of human mitochondrial replacement on global policy regarding germline gene modification. **2014**, 29, 150-5		43
844	Gene editing at CRISPR speed. **2014**, 32, 309-12		29
843	A guide to genome engineering with programmable nucleases. **2014**, 15, 321-34		853
842	Both CRISPR/Cas-based nucleases and nickases can be used efficiently for genome engineering in Arabidopsis thaliana. **2014**, 79, 348-59		475
841	Endonucleases: new tools to edit the mouse genome. **2014**, 1842, 1942-1950		48
840	Classification and evolution of type II CRISPR-Cas systems. *Nucleic Acids Research*, **2014**, 42, 6091-105	20.1	288

839	Caution required for handling genome editing technology. **2014**, 32, 234-7		36
838	CRISPR/Cas technology: a revolutionary approach for genome engineering. *Science China Life Sciences*, **2014**, 57, 639-40	8.5	19
837	Peeking into a cool future: genome editing to delete PCSK9 and control hypercholesterolemia in a single shot. **2014**, 115, 472-4		2
836	Efficient ablation of genes in human hematopoietic stem and effector cells using CRISPR/Cas9. **2014**, 15, 643-52		324
835	Use of the CRISPR/Cas9 system to produce genetically engineered pigs from in vitro-derived oocytes and embryos. *Biology of Reproduction*, **2014**, 91, 78	3.9	213
834	CRISPR in the liver. **2014**, 7, 447-447		
833	Balancing the welfare: the use of non-human primates in research. **2014**, 30, 476-8		13
832	Protein engineering of Cas9 for enhanced function. **2014**, 546, 491-511		17
831	Characterization of genomic deletion efficiency mediated by clustered regularly interspaced short palindromic repeats (CRISPR)/Cas9 nuclease system in mammalian cells. **2014**, 289, 21312-24		236
830	Editing and investigating genomes with TALE and CRISPR/Cas systems: applications of artificial TALE and CRISPR-Cas systems. **2014**, 69, 119-20		1
829	Synthetic biology and therapeutic strategies for the degenerating brain: Synthetic biology approaches can transform classical cell and gene therapies, to provide new cures for neurodegenerative diseases. **2014**, 36, 979-90		16
828	Novel pre-clinical methodologies for pharmacokinetic drug-drug interaction studies: spotlight on "humanized" animal models. **2014**, 46, 475-93		24
827	Conditional targeting of Ispd using paired Cas9 nickase and a single DNA template in mice. **2014**, 4, 637-42		34
826	Therapy for mitochondrial genetic disease: are we at the thin end of the wedge?. **2014**, 29, 147-9		5
825	CRISPR-mediated direct mutation of cancer genes in the mouse liver. **2014**, 514, 380-4		521
824	Generating genetically modified mice using CRISPR/Cas-mediated genome engineering. **2014**, 9, 1956-68		352
823	The new CRISPR-Cas system: RNA-guided genome engineering to efficiently produce any desired genetic alteration in animals. *Transgenic Research*, **2014**, 23, 707-16	3.3	51
822	CRISPR bacon: a sizzling technique to generate genetically engineered pigs. *Biology of Reproduction* , **2014**, 91, 79	3.9	9

821	Targeted genome regulation and modification using transcription activator-like effectors. **2014**, 281, 4583-97		11
820	Genome modification by CRISPR/Cas9. **2014**, 281, 5186-93		86
819	A single blastocyst assay optimized for detecting CRISPR/Cas9 system-induced indel mutations in mice. **2014**, 14, 69		53
818	mRNA-based therapeutics--developing a new class of drugs. **2014**, 13, 759-80		882
817	Mouse models of human evolution. **2014**, 29, 75-80		13
816	Mouse knockout models for HIV-1 restriction factors. **2014**, 71, 3749-66		16
815	Glial development: the crossroads of regeneration and repair in the CNS. **2014**, 83, 283-308		134
814	Genome editing assessment using CRISPR Genome Analyzer (CRISPR-GA). **2014**, 30, 2968-70		107
813	TALEN-mediated gene mutations in monkeys. **2014**, 30, 379-380		2
812	Generation of a monkey with MECP2 mutations by TALEN-based gene targeting. **2014**, 30, 381-6		41
811	Homologous recombination in human embryonic stem cells using CRISPR/Cas9 nickase and a long DNA donor template. **2014**, 5, 258-60		59
810	Somatic mosaicism and allele complexity induced by CRISPR/Cas9 RNA injections in mouse zygotes. **2014**, 393, 3-9		218
809	The future of drug discovery: enabling technologies for enhancing lead characterization and profiling therapeutic potential. **2014**, 9, 847-58		9
808	A CRISPR view of development. **2014**, 28, 1859-72		174
807	Assisted Reproductive Technologies and Embryo Culture Methods for Farm Animals. **2014**, 581-638		5
806	Disrupting the male germ line to find infertility and contraception targets. **2014**, 75, 101-8		11
805	Translating the genomic revolution - targeted genome editing in primates. **2014**, 370, 2342-5		17
804	Development and applications of CRISPR-Cas9 for genome engineering. *Cell*, **2014**, 157, 1262-1278	56.2	3595

803	Nitric oxide signaling in the development and evolution of language and cognitive circuits. **2014**, 86, 77-87		3
802	Expanding the genetic editing tool kit: ZFNs, TALENs, and CRISPR-Cas9. **2014**, 124, 4154-61		252
801	One-step generation of myostatin gene knockout sheep via the CRISPR/Cas9 system. **2014**, 1, 2		48
800	New horizons in genome engineering of Drosophila melanogaster. **2014**, 89, 3-8		17
799	World of Reproductive Biology. *Biology of Reproduction*, **2014**, 90,	3.9	
798	Genome editing of CXCR4 by CRISPR/cas9 confers cells resistant to HIV-1 infection. *Scientific Reports*, **2015**, 5, 15577	4.9	139
797	A marker-free system for highly efficient construction of vaccinia virus vectors using CRISPR Cas9. **2015**, 2, 15035		39
796	Generation of gene-modified goats targeting MSTN and FGF5 via zygote injection of CRISPR/Cas9 system. *Scientific Reports*, **2015**, 5, 13878	4.9	112
795	Efficient Generation of Myostatin Mutations in Pigs Using the CRISPR/Cas9 System. *Scientific Reports*, **2015**, 5, 16623	4.9	93
794	Efficient CRISPR/Cas9-mediated biallelic gene disruption and site-specific knockin after rapid selection of highly active sgRNAs in pigs. *Scientific Reports*, **2015**, 5, 13348	4.9	52
793	Production of Human Albumin in Pigs Through CRISPR/Cas9-Mediated Knockin of Human cDNA into Swine Albumin Locus in the Zygotes. *Scientific Reports*, **2015**, 5, 16705	4.9	62
792	Single-step generation of rabbits carrying a targeted allele of the tyrosinase gene using CRISPR/Cas9. **2015**, 64, 31-7		56
791	Human GPR42 is a transcribed multisite variant that exhibits copy number polymorphism and is functional when heterologously expressed. *Scientific Reports*, **2015**, 5, 12880	4.9	17
790	Generation of hypoxanthine phosphoribosyltransferase gene knockout rabbits by homologous recombination and gene trapping through somatic cell nuclear transfer. *Scientific Reports*, **2015**, 5, 16023	4.9	9
789	Fifty Years After Huxley: The Roadmap of Reproductive Medicine Revisited and Updated: The 2015 SRI-Pardi Distinguished Scientist Plenary Lecture of the Society for Reproductive Investigation. **2015**, 22, 1330-5		
788	Optimized production of transgenic buffalo embryos and offspring by cytoplasmic zygote injection. **2015**, 6, 44		9
787	CRISPR-Cas: From the Bacterial Adaptive Immune System to a Versatile Tool for Genome Engineering. **2015**, 54, 13508-14		17
786	[The return of germline gene therapy]. **2015**, 31, 691-5		2

785	Crystal Structure of Cas9. **2015**, 57, 96-103	
784	Target-specific variants of Flp recombinase mediate genome engineering reactions in mammalian cells. **2015**, 282, 3323-33	9
783	CRISPR-Cas: von einem bakteriellen adaptiven Immunsystem zu einem vielseitigen Werkzeug f die Gentechnik. **2015**, 127, 13710-13716	4
782	Minimizing off-Target Mutagenesis Risks Caused by Programmable Nucleases. **2015**, 16, 24751-71	24
781	From Gene Targeting to Genome Editing: Transgenic animals applications and beyond. **2015**, 87, 1323-48	32
780	Multiplexed CRISPR/Cas9 genome editing increases the efficacy of homologous-dependent repair of donor sequences in mammalian cells. **2015**, 111,	
779	Direct Injection of CRISPR/Cas9-Related mRNA into Cytoplasm of Parthenogenetically Activated Porcine Oocytes Causes Frequent Mosaicism for Indel Mutations. **2015**, 16, 17838-56	46
778	Novel Genome-Editing Tools to Model and Correct Primary Immunodeficiencies. **2015**, 6, 250	27
777	Roles of lncRNA in breast cancer. **2015**, 7, 94-108	69
776	[The CRISPR system can correct or modify the expression of genes responsible for hereditary diseases]. **2015**, 31, 1014-22	3
775	Genome-editing revolution: My whirlwind year with CRISPR. **2015**, 528, 469-71	28
774	Large genomic fragment deletions and insertions in mouse using CRISPR/Cas9. **2015**, 10, e0120396	94
773	Efficient Generation of Myostatin Knock-Out Sheep Using CRISPR/Cas9 Technology and Microinjection into Zygotes. **2015**, 10, e0136690	170
772	CRISPR/Cas faces the bioethics spotlight. **2015**, 58, 223-7	3
771	Animal Models of Human Pathology 2014. **2015**, 2015, 721348	
770	Scientists sound alarm over DNA editing of human embryos. **2015**,	1
769	The CRISPR revolution and its impact on cancer research. **2015**, 145, w14230	10
768	Gaps and Future Challenges. **2015**, 669-672	1

767	Targeted genome editing in primate embryos. **2015**, 25, 767-8	27
766	Applications of the CRISPR-Cas9 system in cancer biology. **2015**, 15, 387-95	260
765	Somatic Genome Manipulation. **2015**,	1
764	Genetics and ethics: a possible and necessary dialogue. **2015**, 6, 193-6	3
763	Generation of B cell-deficient pigs by highly efficient CRISPR/Cas9-mediated gene targeting. **2015**, 42, 437-44	36
762	Lung Stem Cells in the Epithelium and Vasculature. **2015**,	
761	Engineered Nucleases Lead to Genome Editing Revolution in Rats. **2015**, 183-195	
760	Somatic Cell Nuclear Transfer and the Creation of Transgenic Large Animal Models. **2015**, 123-143	1
759	Genome editing of a CArG element in the mouse genome establishes its role in gene expression. **2015**, 35, 496-7	
758	The application of genome editing in studying hearing loss. **2015**, 327, 102-8	41
757	CRISPR-Cas9-mediated genome editing and guide RNA design. **2015**, 26, 501-10	41
756	Engineering Sequence-Specific DNA Binding Proteins for Antiviral Gene Editing. **2015**, 63-94	4
755	Epigenome engineering in cancer: fairytale or a realistic path to the clinic?. **2015**, 5, 22	56
754	CRISPR/Cas9 system as an innovative genetic engineering tool: Enhancements in sequence specificity and delivery methods. **2015**, 1856, 234-43	15
753	The societal opportunities and challenges of genome editing. **2015**, 16, 242	46
752	Genome Editing and Its Applications in Model Organisms. **2015**, 13, 336-44	38
751	Current and future delivery systems for engineered nucleases: ZFN, TALEN and RGEN. **2015**, 205, 120-7	76
750	CRISPR-Cas9 genome editing of a single regulatory element nearly abolishes target gene expression in mice--brief report. **2015**, 35, 312-5	39

749	Germline acquisition of Cas9/RNA-mediated gene modifications in monkeys. **2015**, 25, 262-5		23
748	Efficient creation of an APOE knockout rabbit. *Transgenic Research*, **2015**, 24, 227-35	3.3	25
747	State of the ART: emerging genetic technologies in reproductive medicine are rapidly making real what once was science fiction□re we ready for it?. **2015**, 6, 8-13		
746	New research tools for urogenital schistosomiasis. **2015**, 211, 861-9		19
745	Exogenous enzymes upgrade transgenesis and genetic engineering of farm animals. **2015**, 72, 1907-29		25
744	Gene Targeting Through Homologous Recombination in Monkey Embryonic Stem Cells Using CRISPR/Cas9 System. **2015**, 24, 1147-9		5
743	Targeted Genome Editing Using Site-Specific Nucleases. **2015**,		6
742	Efficiently editing the vaccinia virus genome by using the CRISPR-Cas9 system. **2015**, 89, 5176-9		67
741	Prospects for genetically modified non-human primate models, including the common marmoset. **2015**, 93, 110-5		63
740	Animal models in epilepsy research: legacies and new directions. **2015**, 18, 339-43		143
739	Efficient introgression of allelic variants by embryo-mediated editing of the bovine genome. *Scientific Reports*, **2015**, 5, 11735	4.9	30
738	What studies of macaque monkeys have told us about human color vision. **2015**, 296, 110-5		9
737	Germline transmission in transgenic Huntington's disease monkeys. **2015**, 84, 277-85		26
736	Why bother using non-human primate models of cognitive disorders in translational research?. **2015**, 124, 123-9		29
735	Application of CRISPR/Cas9 for biomedical discoveries. *Cell and Bioscience*, **2015**, 5, 33	9.8	41
734	CRISPR-Cas9-Mediated Genetic Screening in Mice with Haploid Embryonic Stem Cells Carrying a Guide RNA Library. **2015**, 17, 221-32		70
733	Precision cancer mouse models through genome editing with CRISPR-Cas9. **2015**, 7, 53		61
732	The Hope for iPSC in Lung Stem Cell Therapy and Disease Modeling. **2015**, 113-143		0

731	CRISPR-Cas: New Tools for Genetic Manipulations from Bacterial Immunity Systems. **2015**, 69, 209-28		125
730	Efficient generation of gene-modified pigs via injection of zygote with Cas9/sgRNA. *Scientific Reports*, **2015**, 5, 8256	4.9	92
729	Genetically Modified Animals. **2015**, 1417-1440		
728	Generation of cell-type-specific gene mutations by expressing the sgRNA of the CRISPR system from the RNA polymerase II promoters. **2015**, 6, 689-692		7
727	Germline genome-editing research and its socioethical implications. **2015**, 21, 473-81		52
726	CRISPR-Cas9-mediated single-gene and gene family disruption in Trypanosoma cruzi. **2014**, 6, e02097-14		133
725	Modeling cancer processes with CRISPR-Cas9. **2015**, 33, 317-9		7
724	Prefrontal dysfunction and a monkey model of schizophrenia. **2015**, 31, 235-41		4
723	CRISPR/Cas9-mediated gene editing in human tripronuclear zygotes. **2015**, 6, 363-372		713
722	Applications of CRISPR-Cas9 mediated genome engineering. **2015**, 2, 11		24
721	Temperate and lytic bacteriophages programmed to sensitize and kill antibiotic-resistant bacteria. **2015**, 112, 7267-72		267
720	Brains, genes, and primates. **2015**, 86, 617-31		183
719	Targeted Germline Modifications in Rats Using CRISPR/Cas9 and Spermatogonial Stem Cells. **2015**, 10, 1828-35		78
718	The history and market impact of CRISPR RNA-guided nucleases. **2015**, 12, 85-90		26
717	Efficient CRISPR/Cas9-Mediated Genome Editing in Mice by Zygote Electroporation of Nuclease. **2015**, 200, 423-30		166
716	Cloning-free CRISPR/Cas system facilitates functional cassette knock-in in mice. **2015**, 16, 87		197
715	Application of gene-editing technologies to HIV-1. **2015**, 10, 123-7		14
714	Biotechnology. A prudent path forward for genomic engineering and germline gene modification. **2015**, 348, 36-8		413

713	Application of CRISPR/Cas9 genome editing to the study and treatment of disease. **2015**, 89, 1023-34		38
712	Intrinsic regulations in neural fate commitment. **2015**, 57, 109-20		19
711	Efficient inversions and duplications of mammalian regulatory DNA elements and gene clusters by CRISPR/Cas9. **2015**, 7, 284-98		89
710	The CRISPR-Cas immune system: biology, mechanisms and applications. **2015**, 117, 119-28		253
709	Functional disruption of the dystrophin gene in rhesus monkey using CRISPR/Cas9. **2015**, 24, 3764-74		163
708	Egg cell-specific promoter-controlled CRISPR/Cas9 efficiently generates homozygous mutants for multiple target genes in Arabidopsis in a single generation. **2015**, 16, 144		452
707	Eliminate mitochondrial diseases by gene editing in germ-line cells and embryos. **2015**, 6, 472-5		16
706	The 3rd symposium on animal models of primates - the application of non-human primates to basic research and translational medicine. **2015**, 42, 339-41		5
705	Human Induced Pluripotent Stem Cell NEUROG2 Dual Knockin Reporter Lines Generated by the CRISPR/Cas9 System. **2015**, 24, 2925-42		22
704	Modeling Disease In Vivo With CRISPR/Cas9. **2015**, 21, 609-621		77
703	Genetic Dissection of the Host Tropism of Human-Tropic Pathogens. **2015**, 49, 21-45		26
702	Strategies for precision modulation of gene expression by epigenome editing: an overview. **2015**, 8, 34		40
701	Dynamic Pluripotent Stem Cell States and Their Applications. **2015**, 17, 509-25		110
700	Combining CRISPR/Cas9 and rAAV Templates for Efficient Gene Editing. **2015**, 25, 287-96		19
699	CRISPR/Cas9: a powerful genetic engineering tool for establishing large animal models of neurodegenerative diseases. **2015**, 10, 35		77
698	Synuclein and nonhuman primate models of Parkinson's disease. **2015**, 255, 38-51		23
697	Efficient gene-targeting in rat embryonic stem cells by CRISPR/Cas and generation of human kynurenine aminotransferase II (KAT II) knock-in rat. *Transgenic Research*, **2015**, 24, 991-1001	3.3	11
696	CRISPR/Cas9-mediated Dax1 knockout in the monkey recapitulates human AHC-HH. **2015**, 24, 7255-64		64

695	A Spotless Mind. *Cell*, **2015**, 163, 265	56.2	0
694	Selectively Constrained RNA Editing Regulation Crosstalks with piRNA Biogenesis in Primates. **2015**, 32, 3143-57		13
693	Targeted Porcine Genome Engineering with TALENs. **2015**, 17-33		
692	Highly efficient editing of the actinorhodin polyketide chain length factor gene in Streptomyces coelicolor M145 using CRISPR/Cas9-CodA(sm) combined system. **2015**, 99, 10575-85		92
691	Delivery and therapeutic applications of gene editing technologies ZFNs, TALENs, and CRISPR/Cas9. **2015**, 494, 180-94		78
690	Off-target Effects in CRISPR/Cas9-mediated Genome Engineering. **2015**, 4, e264		549
689	One-step generation of p53 gene biallelic mutant Cynomolgus monkey via the CRISPR/Cas system. **2015**, 25, 258-61		71
688	An efficient genotyping method for genome-modified animals and human cells generated with CRISPR/Cas9 system. *Scientific Reports*, **2014**, 4, 6420	4.9	175
687	Efficient and allele-specific genome editing of disease loci in human iPSCs. *Molecular Therapy*, **2015**, 23, 570-7	11.7	135
686	Gene therapy for HIV infection. **2015**, 15, 319-27		7
685	Closing the genotype-phenotype gap: emerging technologies for evolutionary genetics in ecological model vertebrate systems. **2015**, 37, 213-26		40
684	Generation of CRISPR/Cas9-mediated gene-targeted pigs via somatic cell nuclear transfer. **2015**, 72, 1175-84		167
683	Host Genetics: It Is Not Just the Virus, Stupid. **2016**, 169-179		2
682	Generating Mouse Models Using CRISPR-Cas9-Mediated Genome Editing. **2016**, 6, 39-66		22
681	Porcine Zygote Injection with Cas9/sgRNA Results in DMD-Modified Pig with Muscle Dystrophy. **2016**, 17,		54
680	Advantage of Genetic Modifications Using Genome Editing Technology in Stem Cells vs. Zygotes in Genetic Diseases. **2016**, 4,		
679	The Power of CRISPR-Cas9-Induced Genome Editing to Speed Up Plant Breeding. **2016**, 2016, 5078796		34
678	The Rise of CRISPR/Cas for Genome Editing in Stem Cells. **2016**, 2016, 8140168		18

677	Genome Engineering with TALE and CRISPR Systems in Neuroscience. **2016**, 7, 47	21
676	Survival and Evolution of CRISPR-Cas System in Prokaryotes and Its Applications. **2016**, 7, 375	20
675	CRISPR/Cas9: Implications for Modeling and Therapy of Neurodegenerative Diseases. **2016**, 9, 30	34
674	Twenty-First-Century Eugenics. **2016**,	5
673	Germline Transgenesis. **2016**, 217-241	
672	[First use of CRISPR for gene therapy]. **2016**, 32, 1035-1037	2
671	Generation of an Oocyte-Specific Cas9 Transgenic Mouse for Genome Editing. **2016**, 11, e0154364	8
670	Generation of Knock-In Pigs Carrying Oct4-tdTomato Reporter through CRISPR/Cas9-Mediated Genome Engineering. **2016**, 11, e0146562	27
669	CRISPR-Cas9: Tool for Qualitative and Quantitative Plant Genome Editing. **2016**, 7, 1740	49
668	The promise of gene therapy. **2016**, 28, 132-5	4
667	On the Origin of CRISPR-Cas Technology: From Prokaryotes to Mammals. **2016**, 24, 811-820	92
666	CRISPR/Cas9: a breakthrough in generating mouse models for endocrinologists. **2016**, 57, R81-92	8
665	Current and future prospects for CRISPR-based tools in bacteria. **2016**, 113, 930-43	79
664	Generation of a Nonhuman Primate Model of Severe Combined Immunodeficiency Using Highly Efficient Genome Editing. **2016**, 19, 127-38	109
663	PhytoCRISP-Ex: a web-based and stand-alone application to find specific target sequences for CRISPR/CAS editing. **2016**, 17, 261	37
662	Efficient edition of the bovine PRNP prion gene in somatic cells and IVF embryos using the CRISPR/Cas9 system. **2016**, 86, 1886-1896.e1	43
661	Vesicles Cytoplasmic Injection: An Efficient Technique to Produce Porcine Transgene-Expressing Embryos. **2016**, 51, 501-8	1
660	Using CRISPR/Cas to study gene function and model disease in vivo. **2016**, 283, 3194-203	30

659	Transgenesis and Gene Replacement. **2016**, 512-516		
658	Targeted disruption of sp7 and myostatin with CRISPR-Cas9 results in severe bone defects and more muscular cells in common carp. *Scientific Reports*, **2016**, 6, 22953	4.9	67
657	Efficient Production of Gene-Modified Mice using Staphylococcus aureus Cas9. *Scientific Reports*, **2016**, 6, 32565	4.9	24
656	Developing a de novo targeted knock-in method based on in utero electroporation into the mammalian brain. **2016**, 143, 3216-22		33
655	A non-inheritable maternal Cas9-based multiple-gene editing system in mice. *Scientific Reports*, **2016**, 6, 20011	4.9	25
654	Efficient generation of B2m-null pigs via injection of zygote with TALENs. *Scientific Reports*, **2016**, 6, 38854	4.9	22
653	Bibliography. 414-430		
652	Generation of transgenic cynomolgus monkeys that express green fluorescent protein throughout the whole body. *Scientific Reports*, **2016**, 6, 24868	4.9	26
651	Efficient generation of GGTA1-null Diannan miniature pigs using TALENs combined with somatic cell nuclear transfer. **2016**, 14, 77		14
650	Efficient Generation of Gene-Modified Pigs Harboring Precise Orthologous Human Mutation via CRISPR/Cas9-Induced Homology-Directed Repair in Zygotes. **2016**, 37, 110-8		54
649	Designed nucleases for targeted genome editing. **2016**, 14, 448-62		39
648	Genome Editing in Human Pluripotent Stem Cells. **2016**, 2016, pdb.top086819		4
647	CRISPR/Cas9 for Human Genome Engineering and Disease Research. **2016**, 17, 131-54		65
646	Derivation and application of pluripotent stem cells for regenerative medicine. *Science China Life Sciences*, **2016**, 59, 576-83	8.5	2
645	Polq-Mediated End Joining Is Essential for Surviving DNA Double-Strand Breaks during Early Zebrafish Development. **2016**, 15, 707-714		28
644	Delivery of Cas9 Protein into Mouse Zygotes through a Series of Electroporation Dramatically Increases the Efficiency of Model Creation. **2016**, 43, 319-27		64
643	News Feature: Better models for brain disease. **2016**, 113, 5461-4		5
642	Highly Efficient and Rapid Detection of the Cleavage Activity of Cas9/gRNA via a Fluorescent Reporter. **2016**, 180, 655-667		10

641	Alzheimer's Disease Mechanisms and Emerging Roads to Novel Therapeutics. **2016**, 39, 57-79		73
640	Genome editing in pluripotent stem cells: research and therapeutic applications. **2016**, 473, 665-74		15
639	Introducing precise genetic modifications into human 3PN embryos by CRISPR/Cas-mediated genome editing. **2016**, 33, 581-588		182
638	The Application of CRISPR/Cas9 Technologies and Therapies in Stem Cells. **2016**, 2, 95-103		2
637	A CRISPR Path to Engineering New Genetic Mouse Models for Cardiovascular Research. **2016**, 36, 1058-75		33
636	In vivo whole brain, cellular and molecular imaging in nonhuman primate models of neuropathology. **2016**, 66, 104-18		12
635	In´vitro CRISPR-Cas9-mediated efficient Ad5 vector modification. **2016**, 474, 395-399		2
634	CRISPR/Cas9 genome editing new and old ethical issues arising from a revolutionary technology. **2016**, 10, 139-159		22
633	Marmosets: A Neuroscientific Model of Human Social Behavior. **2016**, 90, 219-33		160
632	Induced Pluripotent Stem Cells Meet Genome Editing. **2016**, 18, 573-86		304
631	Neurobiology of social behavior abnormalities in autism and Williams syndrome. **2016**, 19, 647-655		107
630	CRISPR/Cas9 in Genome Editing and Beyond. **2016**, 85, 227-64		644
629	Applications of CRISPR Genome Engineering in Cell Biology. **2016**, 26, 875-888		58
628	Applications of CRISPR technologies in research and beyond. **2016**, 34, 933-941		544
627	Guide RNA engineering for versatile Cas9 functionality. *Nucleic Acids Research*, **2016**, 44, 9555-9564	20.1	44
626	CRISPR/Cas9-mediated somatic correction of a novel coagulator factor IX gene mutation ameliorates hemophilia in mouse. **2016**, 8, 477-88		102
625	Generation of RUNX3 knockout pigs using CRISPR/Cas9-mediated gene targeting. **2016**, 51, 970-978		21
624	CRISPR-Cas9 gene editing: Delivery aspects and therapeutic potential. **2016**, 244, 139-148		37

623	Genome Editing. **2016**,		3
622	Large animal models of atherosclerosis--new tools for persistent problems in cardiovascular medicine. **2016**, 238, 257-66		46
621	Genome editing in nonhuman primates: approach to generating human disease models. **2016**, 280, 246-51		35
620	Translational research on influenza virus infection using a nonhuman primate model. **2016**, 66, 132-141		7
619	Concise Review: Patient-Derived Stem Cell Research for Monogenic Disorders. **2016**, 34, 44-54		11
618	Diversity matters - heterogeneity of dopaminergic neurons in the ventral mesencephalon and its relation to Parkinson's Disease. **2016**, 139 Suppl 1, 8-26		36
617	GRK5-Knockout Mice Generated by TALEN-Mediated Gene Targeting. **2016**, 27, 223-30		4
616	Using CRISPR-Cas9 Genome Editing to Enhance Cell Based Therapies for the Treatment of Diabetes Mellitus. **2016**, 127-147		1
615	Genetic Engineering in Stem Cell Biomanufacturing. **2016**, 1-25		
614	Opportunities and challenges in modeling human brain disorders in transgenic primates. **2016**, 19, 1123-30		74
613	Transcriptome analysis reveals rod/cone photoreceptor specific signatures across mammalian retinas. **2016**, 25, 4376-4388		27
612	At the interface of stem cell research and new technologies. **2016**, 280, 232-5		
611	Generation of porcine fetal fibroblasts expressing the tetracycline-inducible Cas9 gene by somatic cell nuclear transfer. **2016**, 14, 2527-33		4
610	TALEN-based generation of a cynomolgus monkey disease model for human microcephaly. **2016**, 26, 1048-61		28
609	Genome Editing with Targetable Nucleases. **2016**, 1-29		
608	CRISPR/cas9, a novel genomic tool to knock down microRNA in vitro and in vivo. *Scientific Reports*, **2016**, 6, 22312	4.9	127
607	In vivo Editing of the Human Mutant Rhodopsin Gene by Electroporation of Plasmid-based CRISPR/Cas9 in the Mouse Retina. **2016**, 5, e389		111
606	CRISPR-Cas9 technology and its application in haematological disorders. **2016**, 175, 208-225		15

605	Methods of Genome Engineering: a New Era of Molecular Biology. **2016**, 81, 662-77		5
604	Genome editing revolutionize the creation of genetically modified pigs for modeling human diseases. **2016**, 135, 1093-105		34
603	The present and future of genome editing in cancer research. **2016**, 135, 1083-92		9
602	Genome editing: the road of CRISPR/Cas9 from bench to clinic. **2016**, 48, e265		55
601	Delivery methods for site-specific nucleases: Achieving the full potential of therapeutic gene editing. **2016**, 244, 83-97		16
600	Generation and evaluation of Myostatin knock-out rabbits and goats using CRISPR/Cas9 system. *Scientific Reports*, **2016**, 6, 29855	4.9	54
599	A novel technique based on in vitro oocyte injection to improve CRISPR/Cas9 gene editing in zebrafish. *Scientific Reports*, **2016**, 6, 34555	4.9	16
598	Efficient production of cynomolgus monkeys with a toolbox of enhanced assisted reproductive technologies. *Scientific Reports*, **2016**, 6, 25888	4.9	6
597	New models: Gene-editing boom means changing landscape for primate work. **2016**, 22, 1200-1202		1
596	CRISPR-Cas9 mediated efficient PD-1 disruption on human primary T cells from cancer patients. *Scientific Reports*, **2016**, 6, 20070	4.9	188
595	CRISPR/Cas9 Targets Chicken Embryonic Somatic Cells In Vitro and In Vivo and generates Phenotypic Abnormalities. *Scientific Reports*, **2016**, 6, 34524	4.9	18
594	Antiestrogen Resistant Cell Lines Expressing Estrogen Receptor □Mutations Upregulate the Unfolded Protein Response and are Killed by BHPI. *Scientific Reports*, **2016**, 6, 34753	4.9	38
593	Generation of transgenic marmosets expressing genetically encoded calcium indicators. *Scientific Reports*, **2016**, 6, 34931	4.9	60
592	Generation of human organs in pigs via interspecies blastocyst complementation. **2016**, 51 Suppl 2, 18-24		15
591	A Simple and Efficient Approach to Construct Mutant Vaccinia Virus Vectors. **2016**,		5
590	Methods for creating transgenic primates. **2016**, 45, 291-2		2
589	Hematopoietic Stem Cells in Regenerative Medicine: Astray or on the Path?. **2016**, 43, 247-254		22
588	From the first human gene-editing to the birth of three-parent baby. *Science China Life Sciences*, **2016**, 59, 1341-1342	8.5	5

587	Biallelic modification of IL2RG leads to severe combined immunodeficiency in pigs. **2016**, 14, 74	36
586	Exome screening to identify loss-of-function mutations in the rhesus macaque for development of preclinical models of human disease. **2016**, 17, 170	7
585	Applications of CRISPR-Cas in its natural habitat. **2016**, 34, 30-36	5
584	Site-Directed Genome Knockout in Chicken Cell Line and Embryos Can Use CRISPR/Cas Gene Editing Technology. **2016**, 6, 1787-92	20
583	A Robust Single Primate Neuroepithelial Cell Clonal Expansion System for Neural Tube Development and Disease Studies. **2016**, 6, 228-42	16
582	From the RNA world to the clinic. **2016**, 352, 1417-20	168
581	Modeling craniofacial and skeletal congenital birth defects to advance therapies. **2016**, 25, R86-R93	6
580	Development and potential applications of CRISPR-Cas9 genome editing technology in sarcoma. **2016**, 373, 109-118	24
579	Multi-reporter selection for the design of active and more specific zinc-finger nucleases for genome editing. **2016**, 7, 10194	11
578	Efficient dual sgRNA-directed large gene deletion in rabbit with CRISPR/Cas9 system. **2016**, 73, 2959-68	62
577	Enhanced genome editing in mammalian cells with a modified dual-fluorescent surrogate system. **2016**, 73, 2543-63	29
576	Current Progress in Therapeutic Gene Editing for Monogenic Diseases. *Molecular Therapy*, **2016**, 24, 465-74 1147	65
575	Beyond editing: repurposing CRISPR-Cas9 for precision genome regulation and interrogation. **2016**, 17, 5-15	538
574	Applications of CRISPR-Cas systems in neuroscience. **2016**, 17, 36-44	165
573	Using RNA as Molecular Code for Programming Cellular Function. **2016**, 5, 795-809	36
572	Cheating evolution: engineering gene drives to manipulate the fate of wild populations. **2016**, 17, 146-59	283
571	Emerging landscape of cell penetrating peptide in reprogramming and gene editing. **2016**, 226, 124-37	45
570	Interspecies chimeric complementation for the generation of functional human tissues and organs in large animal hosts. *Transgenic Research*, **2016**, 25, 375-84 3.3	14

569	Going Germline: Mitochondrial Replacement as a Guide to Genome Editing. *Cell*, **2016**, 164, 832-5	56.2	14
568	Spermatogenic Cell-Specific Gene Mutation in Mice via CRISPR-Cas9. **2016**, 43, 289-96		4
567	A Broad Overview and Review of CRISPR-Cas Technology and Stem Cells. **2016**, 2, 9-20		25
566	Chemical Biology Approaches to Genome Editing: Understanding, Controlling, and Delivering Programmable Nucleases. **2016**, 23, 57-73		35
565	A mouse model for adult cardiac-specific gene deletion with CRISPR/Cas9. **2016**, 113, 338-43		115
564	Origins of Programmable Nucleases for Genome Engineering. **2016**, 428, 963-89		173
563	Sites of retroviral DNA integration: From basic research to clinical applications. **2016**, 51, 26-42		22
562	Genome editing in Ustilago maydis using the CRISPR-Cas system. **2016**, 89, 3-9		142
561	Advances in therapeutic CRISPR/Cas9 genome editing. **2016**, 168, 15-21		130
560	Application of CRISPR-mediated genome engineering in cancer research. **2017**, 387, 10-17		11
559	Germ line genome editing in clinics: the approaches, objectives and global society. **2017**, 16, 46-56		44
558	CRISPR-Cas9 technology: applications and human disease modelling. **2017**, 16, 4-12		25
557	CRISPR and the Rebirth of Synthetic Biology. **2017**, 23, 351-363		16
556	Primate embryogenesis predicts the hallmarks of human naïve pluripotency. **2017**, 144, 175-186		77
555	Towards a CRISPR view of early human development: applications, limitations and ethical concerns of genome editing in human embryos. **2017**, 144, 3-7		30
554	Single Cas9 nickase induced generation of NRAMP1 knockin cattle with reduced off-target effects. **2017**, 18, 13		119
553	Ethical issues in research. **2017**, 43, 107-114		4
552	Transcriptome analyses of rhesus monkey preimplantation embryos reveal a reduced capacity for DNA double-strand break repair in primate oocytes and early embryos. **2017**, 27, 567-579		40

551	De novo DNA methylation during monkey pre-implantation embryogenesis. **2017**, 27, 526-539		29
550	Social Decision-Making and the Brain: A Comparative Perspective. **2017**, 21, 265-276		58
549	An AANAT/ASMT transgenic animal model constructed with CRISPR/Cas9 system serving as the mammary gland bioreactor to produce melatonin-enriched milk in sheep. **2017**, 63, e12406		22
548	CRISPR/Cas9-mediated gene editing in human zygotes using Cas9 protein. **2017**, 292, 525-533		137
547	China's landscape in regenerative medicine. **2017**, 124, 78-94		13
546	Gene Editing With CRISPR/Cas9 RNA-Directed Nuclease. **2017**, 120, 876-894		49
545	Non-human Primate Models for Brain Disorders - Towards Genetic Manipulations via Innovative Technology. **2017**, 33, 247-250		11
544	Therapeutic genome engineering via CRISPR-Cas systems. **2017**, 9, e1380		17
543	CRISPR-Cas9-mediated genome editing in one blastomere of two-cell embryos reveals a novel Tet3 function in regulating neocortical development. **2017**, 27, 815-829		23
542	A CRISPR toolbox to study virus-host interactions. **2017**, 15, 351-364		99
541	Animal models of atherosclerosis. **2017**, 816, 3-13		241
540	Combining Genetic and Developmental Methods to Study Musculoskeletal Evolution in Primates. 175-204		
539	CRISPR Editing in Biological and Biomedical Investigation. **2017**, 118, 4152-4162		5
538	Quantitative assessment of timing, efficiency, specificity and genetic mosaicism of CRISPR/Cas9-mediated gene editing of hemoglobin beta gene in rhesus monkey embryos. **2017**, 26, 2678-2689		17
537	Cellular function reinstitution of offspring red blood cells cloned from the sickle cell disease patient blood post CRISPR genome editing. **2017**, 10, 119		15
536	Homology-mediated end joining-based targeted integration using CRISPR/Cas9. **2017**, 27, 801-814		165
535	Non-viral and viral delivery systems for CRISPR-Cas9 technology in the biomedical field. *Science China Life Sciences*, **2017**, 60, 458-467	8.5	33
534	Safety and Efficacy of Gene-Based Therapeutics for Inherited Disorders. **2017**,		0

533	Optimization of a CRISPR/Cas9-mediated Knock-in Strategy at the Porcine Rosa26 Locus in Porcine Foetal Fibroblasts. *Scientific Reports*, **2017**, 7, 3036	4.9	25
532	CRISPR/Cas9-Based Genome Editing for Disease Modeling and Therapy: Challenges and Opportunities for Nonviral Delivery. **2017**, 117, 9874-9906		287
531	Genome Editing in Animals. **2017**,		1
530	Progress and Application of CRISPR/Cas Technology in Biological and Biomedical Investigation. **2017**, 118, 3061-3071		6
529	One-step generation of complete gene knockout mice and monkeys by CRISPR/Cas9-mediated gene editing with multiple sgRNAs. **2017**, 27, 933-945		110
528	Naming CRISPR alleles: endonuclease-mediated mutation nomenclature across species. **2017**, 28, 367-376		6
527	Engineered CRISPR Systems for Next Generation Gene Therapies. **2017**, 6, 1614-1626		24
526	The Mouse Lemur, a Genetic Model Organism for Primate Biology, Behavior, and Health. **2017**, 206, 651-664		31
525	The Hope and Hype of CRISPR-Cas9 Genome Editing: A Review. **2017**, 2, 914-919		30
524	Optimizing the DNA Donor Template for Homology-Directed Repair of Double-Strand Breaks. **2017**, 7, 53-60		73
523	Purified Cas9 Fusion Proteins for Advanced Genome Manipulation. **2017**, 1, 1600052		9
522	The Transmembrane Serine Protease HAT-like 4 Is Important for Epidermal Barrier Function to Prevent Body Fluid Loss. *Scientific Reports*, **2017**, 7, 45262	4.9	9
521	Precision Genome Editing for Systems Biology A Temporal Perspective. **2017**, 367-392		
520	Applications of CRISPR genome editing technology in drug target identification and validation. **2017**, 12, 541-552		13
519	Rhesus iPSC Safe Harbor Gene-Editing Platform for Stable Expression of Transgenes in Differentiated Cells of All Germ Layers. *Molecular Therapy*, **2017**, 25, 44-53	11.7	15
518	Cornerstones of CRISPR-Cas in drug discovery and therapy. **2017**, 16, 89-100		274
517	Gene delivery ability of polyethylenimine and polyethylene glycol dual-functionalized nanographene oxide in 11 different cell lines. **2017**, 4, 170822		13
516	Engineering nucleic acid structures for programmable molecular circuitry and intracellular biocomputation. **2017**, 9, 1056-1067		186

515	Genome Editing in Neurosciences. **2017**,		2
514	Transabdominal ultrasound-guided multifetal pregnancy reduction in 10 cases of monkeys. *Biology of Reproduction*, **2017**, 97, 758-761	3.9	1
513	Nonhuman Primates: A Vital Model for Basic and Applied Research on Female Reproduction, Prenatal Development, and Women's Health. **2017**, 58, 281-294		23
512	Efficient generation of the mouse model with a defined point mutation through haploid cell-mediated gene editing. **2017**, 44, 461-463		8
511	Delivery strategies of the CRISPR-Cas9 gene-editing system for therapeutic applications. **2017**, 266, 17-26		248
510	Correction of a pathogenic gene mutation in human embryos. **2017**, 548, 413-419		567
509	Human Germline Genome Editing. **2017**, 101, 167-176		105
508	Nuclear deterrents: Intrinsic regulators of IL-1□nduced effects on hippocampal neurogenesis. **2017**, 66, 394-412		23
507	Experimental animal models of Parkinson's disease: A transition from assessing symptomatology to □synuclein targeted disease modification. **2017**, 298, 172-179		33
506	Genome editing in crop improvement: Present scenario and future prospects. **2017**, 31, 453-559		42
505	Noninheritable Maternal Factors Useful for Genetic Manipulation in Mammals. **2017**, 63, 495-510		2
504	Cryopreservation of cynomolgus macaque (Macaca fascicularis) sperm with glycerol and ethylene glycol, and its effect on sperm-specific ion channels - CatSper and Hv1. **2017**, 104, 37-42		8
503	Genome Editing: The Recent History and Perspective in Cardiovascular Diseases. **2017**, 70, 2808-2821		14
502	Cre-dependent Cas9-expressing pigs enable efficient in vivo genome editing. **2017**, 27, 2061-2071		37
501	Precision Medicine, CRISPR, and Genome Engineering. **2017**,		0
500	From Reductionism to Holism: Toward a More Complete View of Development Through Genome Engineering. **2017**, 1016, 45-74		5
499	The evolution of cortical development: the synapsid-diapsid divergence. **2017**, 144, 4061-4077		13
498	A Novel Rat Model of Nonalcoholic Fatty Liver Disease Constructed Through CRISPR/Cas-Based Hydrodynamic Injection. **2017**, 59, 365-373		10

497	CRISPR-Cas9-Mediated Gene Editing in Mouse Spermatogonial Stem Cells. **2017**, 1622, 293-305		7
496	Tailoring non-viral delivery vehicles for transporting genome-editing tools. **2017**, 60, 511-515		10
495	CRISPR/Cas9, a universal tool for genomic engineering. **2017**, 7, 440-458		3
494	CRISPR/Cas9 in zebrafish: an efficient combination for human genetic diseases modeling. **2017**, 136, 1-12		68
493	Artificial Virus Delivers CRISPR-Cas9 System for Genome Editing of Cells in Mice. **2017**, 11, 95-111		161
492	CRISPR-Based Technologies for the Manipulation of Eukaryotic Genomes. *Cell*, **2017**, 168, 20-36	56.2	545
491	In vivo and in vitro disease modeling with CRISPR/Cas9. **2017**, 16, 13-24		11
490	Genome editing in cardiovascular diseases. **2017**, 14, 11-20		57
489	CRISPR/Cas9 Immune System as a Tool for Genome Engineering. **2017**, 65, 233-240		59
488	Application of viral vectors to the study of neural connectivities and neural circuits in the marmoset brain. **2017**, 77, 354-372		7
487	The organic anion transporting polypeptide 1a5 is a pivotal transporter for the uptake of microcystin-LR by gonadotropin-releasing hormone neurons. **2017**, 182, 1-10		21
486	Nutrigenomics in the modern era. **2017**, 76, 265-275		46
485	RAPID COMMUNICATION: Generation of knockout sheep via the CRISPR/Cas9 system. **2017**, 95, 2019-2024		20
484	Natural Killer Cells Promote Fetal Development through the Secretion of Growth-Promoting Factors. **2017**, 47, 1100-1113.e6		138
483	Assisted reproductive technologies in the common marmoset: an integral species for developing nonhuman primate models of human diseases. *Biology of Reproduction*, **2017**, 96, 277-287	3.9	14
482	CRISPR in Animals and Animal Models. **2017**, 152, 95-114		26
481	Paving the road for biomedicine: genome editing and stem cells in primates. **2017**, 4, 543-549		3
480	[CRISPR-Cas9, germinal cells and human embryo]. **2017**, 211, 207-213		1

479	References. **2017**, 317-344	
478	Genetically Modified Animal Models. **2017**, 703-726	1
477	How to Train a Cell-Cutting-Edge Molecular Tools. **2017**, 5, 12	7
476	Regulatory and Scientific Advancements in Gene Therapy: State-of-the-Art of Clinical Applications and of the Supporting European Regulatory Framework. **2017**, 4, 182	31
475	Mechanisms of Long Non-Coding RNAs in the Assembly and Plasticity of Neural Circuitry. **2017**, 11, 76	29
474	The Impact of CRISPR/Cas9 Technology on Cardiac Research: From Disease Modelling to Therapeutic Approaches. **2017**, 2017, 8960236	19
473	Modeling Cancer Using CRISPR-Cas9 Technology. **2017**, 905-924	
472	A novel rapid and reproducible flow cytometric method for optimization of transfection efficiency in cells. **2017**, 12, e0182941	9
471	The therapeutic landscape of HIV-1 via genome editing. **2017**, 14, 32	18
470	CRISPR/Cas9 Technology: Applications and Human Disease Modeling. **2017**, 152, 23-48	10
469	[The beginning of human life: ethical and legal perspectives in the context of biotechnological progress]. **2017**, 33, e00071816	0
468	Animal Models of Atherosclerosis. **2017**, 205-217	3
467	The Smart Programmable CRISPR Technology: A Next Generation Genome Editing Tool for Investigators. **2017**, 18, 1653-1663	7
466	Superovulatory responses in cynomolgus monkeys (Macaca fascicularis) depend on the interaction between donor status and superovulation method used. **2017**, 63, 149-155	5
465	Efficient Generation of Genome-Modified Mice Using Campylobacter jejuni-Derived CRISPR/Cas. **2017**, 18,	4
464	CRISPR-Cas9: a promising tool for gene editing on induced pluripotent stem cells. **2017**, 32, 42-61	35
463	Wisp2 disruption represses Cxcr4 expression and inhibits BMSCs homing to injured liver. **2017**, 8, 98823-98836	1
462	Creating animal models, why not use the Chinese tree shrew ()?. **2017**, 38, 118-126	59

461	Precision Medicine and Challenges in Research and Clinical Implementation. **2017**, 717-732		1
460	Diagnosis and therapy with CRISPR advanced CRISPR based tools for point of care diagnostics and early therapies. **2018**, 656, 22-29		19
459	Non-viral delivery systems for CRISPR/Cas9-based genome editing: Challenges and opportunities. **2018**, 171, 207-218		180
458	CRISPR-Cas9: A Precise Approach to Genome Engineering. **2018**, 52, 701-707		3
457	Modeling autism in non-human primates: Opportunities and challenges. **2018**, 11, 686-694		21
456	Cloning of Macaque Monkeys by Somatic Cell Nuclear Transfer. *Cell*, **2018**, 172, 881-887.e7	56.2	153
455	The behavioral genetics of nonhuman primates: Status and prospects. **2018**, 165 Suppl 65, 23-36		14
454	Exosome-Liposome Hybrid Nanoparticles Deliver CRISPR/Cas9 System in MSCs. **2018**, 5, 1700611		212
453	TALEN-mediated gene targeting in porcine spermatogonia. **2018**, 85, 250-261		10
452	Multiple homologous genes knockout (KO) by CRISPR/Cas9 system in rabbit. **2018**, 647, 261-267		13
451	CRISPR/Cas9: A tool for immunological research. **2018**, 48, 576-583		12
450	Production of Wilson Disease Model Rabbits with Homology-Directed Precision Point Mutations in the ATP7B Gene Using the CRISPR/Cas9 System. *Scientific Reports*, **2018**, 8, 1332	4.9	17
449	A simple and rapid approach to develop recombinant avian herpesvirus vectored vaccines using CRISPR/Cas9 system. **2018**, 36, 716-722		28
448	Generation of a precise Oct4-hrGFP knockin cynomolgus monkey model via CRISPR/Cas9-assisted homologous recombination. **2018**, 28, 383-386		29
447	Generation of knock-in cynomolgus monkey via CRISPR/Cas9 editing. **2018**, 28, 379-382		29
446	Responsible innovation in human germline gene editing: Background document to the recommendations of ESHG and ESHRE. **2018**, 26, 450-470		28
445	Use of CRISPR/Cas9 gene-editing tools for developing models in drug discovery. **2018**, 23, 519-533		23
444	The Ethics of Reproductive Genetics. **2018**,		

443	Csy4-based vector system enables conditional chimeric gene editing in zebrafish without interrupting embryogenesis. **2018**, 10, 586-588	6
442	Non-human primate models of PD to test novel therapies. **2018**, 125, 291-324	26
441	CRISPR-Cas9 system-driven site-specific selection pressure on Herpes simplex virus genomes. **2018**, 244, 286-295	11
440	Use of CRISPR/Cas9 to model brain diseases. **2018**, 81, 488-492	15
439	CRISPR-engineered genome editing for the next generation neurological disease modeling. **2018**, 81, 459-467	8
438	Gene therapy and editing: Novel potential treatments for neuronal channelopathies. **2018**, 132, 108-117	20
437	Generation of Genomic Deletions (of Rig-I GENE) in Goat Primary Cell Culture Using CRISPR/CAS9 Method. **2018**, 29, 142-152	2
436	Optogenetics: A Roadmap. **2018**,	3
435	Optophysiology and Behavior in Rodents and Nonhuman Primates. **2018**, 199-217	
434	Behavioral Manipulation by Optogenetics in the Nonhuman Primate. **2018**, 24, 526-539	13
433	Multiplexed sgRNA Expression Allows Versatile Single Nonrepetitive DNA Labeling and Endogenous Gene Regulation. **2018**, 7, 176-186	21
432	Timing of CRISPR/Cas9-related mRNA microinjection after activation as an important factor affecting genome editing efficiency in porcine oocytes. **2018**, 108, 29-38	23
431	Genetic engineering in nonhuman primates for human disease modeling. **2018**, 63, 125-131	18
430	Effects of voltage strength during electroporation on the development and quality of in vitro-produced porcine embryos. **2018**, 53, 313-318	21
429	Modeling Cancer in the CRISPR Era. **2018**, 2, 111-131	10
428	Investigation of brain science and neurological/psychiatric disorders using genetically modified non-human primates. **2018**, 50, 1-6	30
427	Progress in developing transgenic monkey model for Huntington's disease. **2018**, 125, 401-417	12
426	CRISPR editing in biological and biomedical investigation. **2018**, 233, 3875-3891	15

425	Responsible innovation in human germline gene editing. Background document to the recommendations of ESHG and ESHRE. **2018**, 2018, hox024	5
424	Knockout of microRNA-26a promotes lung development and pulmonary surfactant synthesis. **2018**, 17, 5988-5995	6
423	CRISPR/Cas9-Facilitated Chromosome Engineering to Model Human Chromosomal Alterations. **2018**,	0
422	Bibliography. 425-441	
421	Double-Muscled Phenotype in Mutant Sheep Directed by the CRISPRCas9 System. **2018**, 07,	5
420	Phosphate Lock Residues of Acidothermus cellulolyticus Cas9 Are Critical to Its Substrate Specificity. **2018**, 7, 2908-2917	3
419	Cytokine-Based Generation of CD49aEomes Natural Killer Cell Subsets. **2018**, 9, 2126	8
418	Crosstalk between MicroRNAs and Peroxisome Proliferator-Activated Receptors and Their Emerging Regulatory Roles in Cardiovascular Pathophysiology. **2018**, 2018, 8530371	14
417	Gene Editing Technologies and Use of Recombinant/Synthetic Nucleic Acids in Laboratory Animals. **2018**, 23, 168-179	
416	Genetically modified pigs are protected from classical swine fever virus. **2018**, 14, e1007193	40
415	Emerging Concepts and Techniques. **2018**, 729-743	
414	Genetic Mouse Models for Female Reproductive Toxicology Studies. **2018**, 470-494	
413	Overcoming the Undesirable CRISPR-Cas9 Expression in Gene Correction. **2018**, 13, 699-709	10
412	Editing porcine IGF2 regulatory element improved meat production in Chinese Bama pigs. **2018**, 75, 4619-4628	32
411	Functional Analyses of Cassette Chromosome Recombinase C2 (CcrC2) and Its Use in Eliminating Methicillin Resistance by Combining CRISPR-Cas9. **2018**, 7, 2590-2599	4
410	CRISPR/Cas9 gene-editing: Research technologies, clinical applications and ethical considerations. **2018**, 42, 487-500	22
409	Apolipoprotein E deficiency accelerates atherosclerosis development in miniature pigs. **2018**, 11,	27
408	CRISPR/Cas9 System: A Bacterial Tailor for Genomic Engineering. **2018**, 2018, 3797214	12

407	Human-Monkey Chimeras for Modeling Human Disease: Opportunities and Challenges. **2018**, 27, 1599-1604		6
406	Editing the Genome Ex Vivo Stem Cell Therapy. **2018**, 4, 338-345		1
405	Disruption of PD-1 Enhanced the Anti-tumor Activity of Chimeric Antigen Receptor T Cells Against Hepatocellular Carcinoma. *Frontiers in Pharmacology*, **2018**, 9, 1118	5.6	82
404	Delivery approaches for CRISPR/Cas9 therapeutics in vivo: advances and challenges. **2018**, 15, 905-913		54
403	Unraveling of Central Nervous System Disease Mechanisms Using CRISPR Genome Manipulation. **2018**, 10, 1179573518787469		6
402	Single-cell RNA-sequencing reveals the existence of naive and primed pluripotency in pre-implantation rhesus monkey embryos. **2018**, 28, 1481-1493		16
401	() is essential for preimplantation embryo development. **2018**, 7,		16
400	Ethical issues in genetic modification and why application matters. **2018**, 52, 7-12		9
399	Delivering CRISPR: a review of the challenges and approaches. **2018**, 25, 1234-1257		452
398	Generation of genetically-engineered animals using engineered endonucleases. *Archives of Pharmacal Research*, **2018**, 41, 885-897	6.1	16
397	Deficiency of PRKD2 triggers hyperinsulinemia and metabolic disorders. **2018**, 9, 2015		8
396	In Situ Gene Therapy via AAV-CRISPR-Cas9-Mediated Targeted Gene Regulation. *Molecular Therapy*, **2018**, 26, 1818-1827	11.7	73
395	Multifunctional nucleic acid nanostructures for gene therapies. **2018**, 11, 5017-5027		19
394	In vivo genome editing targeted towards the female reproductive system. *Archives of Pharmacal Research*, **2018**, 41, 898-910	6.1	7
393	Genome Editing Redefines Precision Medicine in the Cardiovascular Field. **2018**, 2018, 4136473		7
392	No off-target mutations in functional genome regions of a CRISPR/Cas9-generated monkey model of muscular dystrophy. **2018**, 293, 11654-11658		20
391	Myoediting: Toward Prevention of Muscular Dystrophy by Therapeutic Genome Editing. **2018**, 98, 1205-1240		18
390	CRISPR Genome Editing in Mice. 165-180		

389	Biomedical applications of mRNA nanomedicine. **2018**, 11, 5281-5309		47
388	Personalized gene and cell therapy for Duchenne Muscular Dystrophy. **2018**, 28, 803-824		27
387	CRISPR/Cas9-based In Vivo Models of Cancer. 315-336		1
386	Of Men and Mice: Modeling the Fragile X Syndrome. **2018**, 11, 41		64
385	CRISPR/Cas9 Technology as an Emerging Tool for Targeting Amyotrophic Lateral Sclerosis (ALS). **2018**, 19,		9
384	Generating CRISPR/Cas9-Derived Mutant Mice by Zygote Cytoplasmic Injection Using an Automatic Microinjector. **2018**, 1,		8
383	CRISPR/Cascade 9-Mediated Genome Editing-Challenges and Opportunities. **2018**, 9, 240		36
382	Generation of GHR-modified pigs as Laron syndrome models via a dual-sgRNAs/Cas9 system and somatic cell nuclear transfer. **2018**, 16, 41		9
381	A method for expansion of T cells from cynomolgus monkey (Macaca fascicularis). **2018**, 54, 549-554		
380	SIRT6 deficiency results in developmental retardation in cynomolgus monkeys. **2018**, 560, 661-665		91
379	Efficient generation of goats with defined point mutation (I397V) in GDF9 through CRISPR/Cas9. **2018**, 30, 307-312		20
378	Applications and advances of CRISPR-Cas9 in cancer immunotherapy. **2019**, 56, 4-9		27
377	The advances in CRISPR technology and 3D genome. **2019**, 90, 54-61		6
376	Primate stem cells: bridge the translation from basic research to clinic application. *Science China Life Sciences*, **2019**, 62, 12-21	8.5	4
375	Functional and Proteomic Analysis of Virulence Upon Loss of Its Native Cas9 Nuclease. **2019**, 10, 1967		7
374	The role of MeCP2 in learning and memory. **2019**, 26, 343-350		6
373	A guide to Mycobacterium mutagenesis. **2019**, 286, 3757-3774		8
372	Site-specific integration of rotavirus VP6 gene in rabbit Ecasein locus by CRISPR/Cas9 system. **2019**, 55, 586-597		4

371	CRISPR-Cas9 Probing of Infectious Diseases and Genetic Disorders. **2019**, 86, 1131-1135		1
370	Genome Editing in Farm Animals. **2019**, 455-461		
369	CRISPR-Cas9 system: A new-fangled dawn in gene editing. **2019**, 232, 116636		62
368	Nanotechnology based CRISPR/Cas9 system delivery for genome editing: Progress and prospect. **2019**, 12, 2437-2450		24
367	Production of non-mosaic genome edited porcine embryos by injection of CRISPR/Cas9 into germinal vesicle oocytes. **2019**, 46, 335-342		6
366	Recent advances in developing and applying biosensors for synthetic biology. **2019**, 3, 042002		6
365	Tuning the Reactivity of Cyclopropenes from Living Ring-Opening Metathesis Polymerization (ROMP) to Single-Addition and Alternating ROMP. **2019**, 58, 17771-17776		14
364	Methods and applications of CRISPR/Cas system for genome editing in stem cells. **2019**, 8, 33-41		16
363	High-fidelity endonuclease variant HypaCas9 facilitates accurate allele-specific gene modification in mouse zygotes. **2019**, 2, 371		19
362	Gene Delivery to Nonhuman Primate Preimplantation Embryos Using Recombinant Adeno-Associated Virus. **2019**, 6, 1900440		4
361	Attitudes Toward Hypothetical Uses of Gene-Editing Technologies in Parents of People with Autosomal Aneuploidies. **2019**, 2, 324-330		6
360	Dissecting primate early post-implantation development using long-term in vitro embryo culture. **2019**, 366,		65
359	Block Polymer Micelles Enable CRISPR/Cas9 Ribonucleoprotein Delivery: Physicochemical Properties Affect Packaging Mechanisms and Gene Editing Efficiency. **2019**, 52, 8197-8206		28
358	Development of genetically modified nonhuman primates toward models for translational research. **2019**, 1, 15-23		1
357	Efficient generation of Knock-in/Knock-out marmoset embryo via CRISPR/Cas9 gene editing. *Scientific Reports*, **2019**, 9, 12719	4.9	25
356	Generation of genetically modified mice using SpCas9-NG engineered nuclease. *Scientific Reports*, **2019**, 9, 12878	4.9	11
355	Generation of pigs with a Belgian Blue mutation in MSTN using CRISPR/Cpf1-assisted ssODN-mediated homologous recombination. **2019**, 18, 1329-1336		9
354	Cancer therapy with a CRISPR-assisted telomerase-activating gene expression system. **2019**, 38, 4110-4124		13

353	Directed evolution studies of a thermophilic Type II-C Cas9. **2019**, 616, 265-288		3
352	Genome editing in large animals: current status and future prospects. **2019**, 6, 402-420		29
351	Generating Recombinant Avian Herpesvirus Vectors with CRISPR/Cas9 Gene Editing. **2019**,		7
350	BMAL1 knockout macaque monkeys display reduced sleep and psychiatric disorders. **2019**, 6, 87-100		47
349	Cloning of a gene-edited macaque monkey by somatic cell nuclear transfer. **2019**, 6, 101-108		36
348	A chemical approach for global protein knockdown from mice to non-human primates. **2019**, 5, 10		64
347	Neural Circuits Underlying Rodent Sociality: A Comparative Approach. **2019**, 43, 211-238		7
346	Macaque monkeys as a non-human primate circadian model. **2019**, 6, 302-303		2
345	Editing the Central Nervous System Through CRISPR/Cas9 Systems. **2019**, 12, 110		20
344	i-GONAD: A method for generating genome-edited animals without ex vivo handling of embryos. **2019**, 61, 306-315		10
343	Delivery of CRISPR/Cas9 for therapeutic genome editing. **2019**, 21, e3107		62
342	Development of CRISPR-Cas systems for genome editing and beyond. **2019**, 52,		57
341	Chimera Research. **2019**,		
340	Human-Monkey Chimeras for Modeling Human Disease: Opportunities and Challenges. **2019**, 2005, 221-231		5
339	Construction of a sensitive pyrogen-testing cell model by site-specific knock-in of multiple genes. **2019**, 116, 2652-2661		
338	Anephrogenic phenotype induced by SALL1 gene knockout in pigs. *Scientific Reports*, **2019**, 9, 8016	4.9	4
337	Atypical behaviour and connectivity in SHANK3-mutant macaques. **2019**, 570, 326-331		89
336	Therapeutic application of the CRISPR system: current issues and new prospects. **2019**, 138, 563-590		13

335	CRISPR/Cas System for Genome Editing: Progress and Prospects as a Therapeutic Tool. **2019**, 370, 725-735		16
334	Expansion of the mutant monkey through cloning. *Science China Life Sciences*, **2019**, 62, 865-867	8.5	
333	CRISPR/Cas9-mediated MSTN gene editing induced mitochondrial alterations in C2C12 myoblast cells. **2019**, 40, 30-39		2
332	What to Expect When Expecting CRISPR Baby Number Four. **2019**, 19, 7-9		19
331	Genome Editing with mRNA Encoding ZFN, TALEN, and Cas9. *Molecular Therapy*, **2019**, 27, 735-746	11.7	75
330	Introduction. **2019**, 3-15		
329	Biological Resources for Genomic Investigation in the Vervet Monkey (Chlorocebus). **2019**, 16-28		3
328	Savanna Monkey Taxonomy. **2019**, 31-54		1
327	The Promise of Vervet Genomics. **2019**, 55-59		
326	African Green Monkeys as a Natural Host of SIV. **2019**, 60-70		
325	The Vervet Microbiome. **2019**, 71-78		
324	Population Genetics and Savanna Monkeys. **2019**, 81-100		
323	Population Genetic Structure of Vervet Monkeys in South Africa. **2019**, 101-106		
322	Behavioral Ecology of Savanna Monkeys. **2019**, 109-126		0
321	Socioecology of Vervet Monkeys. **2019**, 127-132		
320	Biological Complexity in Primate Sociality and Health. **2019**, 133-140		
319	Predation and Food Competition in Vervet Monkeys (Chlorocebus pygerythrus). **2019**, 141-151		
318	Vervet Monkeys Social Learning Abilities. **2019**, 152-160		

317	Life History of Savanna Monkeys. **2019**, 163-198		1
316	The Social and Thermal Competence of Wild Vervet Monkeys. **2019**, 199-207		1
315	Novelty-Seeking in Vervets: Developmental, Genetic, and Environmental Influences. **2019**, 208-216		
314	Measurement of Novelty-Seeking in Wild Vervet Monkeys. **2019**, 217-223		
313	Causes of Variation in the Static Allometry of Morphological Structures: A Case Study with Vervet Monkeys. **2019**, 224-232		
312	Ethnoprimatology and Savanna Monkeys. **2019**, 235-243		1
311	Exploring Caribbean Green Monkeys (Chlorocebus sabaeus) through an Ethnoprimatological Lens. **2019**, 244-254		
310	Vervet Monkeys (Chlorocebus pygerthrus), Chimpanzees (Pan troglodytes), and Humans (Homo sapiens): Studying Interactions Using Stable Isotope Analysis. **2019**, 255-262		
309	Index. **2019**, 333-342		
308	Preface. **2019**, xv-xviii		
307	Genome editing: A perspective on the application of CRISPR/Cas9 to study human diseases (Review). **2019**, 43, 1559-1574		43
306	Local transgene expression and whole-body transgenesis to model brain diseases in nonhuman primate. **2019**, 2, 9-17		1
305	Genome mutation after introduction of the gene editing by electroporation of Cas9 protein (GEEP) system in matured oocytes and putative zygotes. **2019**, 55, 237-242		19
304	CRISPR-Cas: Converting A Bacterial Defence Mechanism into A State-of-the-Art Genetic Manipulation Tool. **2019**, 8,		20
303	Profile of Prof. Weizhi Ji. *Science China Life Sciences*, **2019**, 62, 8-11	8.5	
302	Unexpected genomic rearrangements at targeted loci associated with CRISPR/Cas9-mediated knock-in. *Scientific Reports*, **2019**, 9, 3486	4.9	16
301	Delivering the Messenger: Advances in Technologies for Therapeutic mRNA Delivery. *Molecular Therapy*, **2019**, 27, 710-728	11.7	354
300	A Rationally Designed Semiconducting Polymer Brush for NIR-II Imaging-Guided Light-Triggered Remote Control of CRISPR/Cas9 Genome Editing. **2019**, 31, e1901187		65

299	Comparison of gene editing efficiencies of CRISPR/Cas9 and TALEN for generation of MSTN knock-out cashmere goats. **2019**, 132, 1-11		18
298	The ethics of genome editing in non-human animals: a systematic review of reasons reported in the academic literature. **2019**, 374, 20180106		24
297	Transgenic rhesus monkeys carrying the human gene copies show human-like neoteny of brain development. **2019**, 6, 480-493		35
296	Loss-of-function approaches in comparative physiology: is there a future for knockdown experiments in the era of genome editing?. **2019**, 222,		19
295	The CRISPR□Cas9, genome editing approach: a promising tool for drafting defense strategy against begomoviruses including cotton leaf curl viruses. **2019**, 28, 121-132		11
294	Craniobot: A computer numerical controlled robot for cranial microsurgeries. *Scientific Reports*, **2019**, 9, 1023	4.9	18
293	Comparative Principles for Next-Generation Neuroscience. **2019**, 13, 12		11
292	Creating cell and animal models of human disease by genome editing using CRISPR/Cas9. **2019**, 21, e3082		22
291	CRISPR/Cas9-mediated genome editing in nonhuman primates. **2019**, 12,		30
290	Current state of research on non-human primate models of Alzheimer's disease. **2019**, 2, 227-238		14
289	Making Future Teachers More Aware of Issues Related to Sustainability: An Assessment of Best Practices. **2019**, 11, 7222		16
288	Ethico-legal aspects of CRISPR Cas-9 genome editing: A balanced approach. **2019**, 19, 11-16		
287	Optimization Strategy for Generating Gene-edited Tibet Minipigs by Synchronized Oestrus and Cytoplasmic Microinjection. **2019**, 15, 2719-2732		4
286	Cell-Selective Messenger RNA Delivery and CRISPR/Cas9 Genome Editing by Modulating the Interface of Phenylboronic Acid-Derived Lipid Nanoparticles and Cellular Surface Sialic Acid. **2019**, 11, 46585-46590		28
285	Integrative Analysis of Methylation and Transcriptional Profiles to Reveal the Genetic Stability of Cashmere Traits in the T□ Overexpression of Cashmere Goats. **2019**, 9,		6
284	3D designed and printed chemical generators for on demand reagent synthesis. **2019**, 10, 5496		11
283	Monkeys mutant for PKD1 recapitulate human autosomal dominant polycystic kidney disease. **2019**, 10, 5517		12
282	CRISPR-Cas Technology as a Tool to Create Animal Models for Biomedical Research. **2019**, 141-153		

281	Generation of genetically engineered non-human primate models of brain function and neurological disorders. **2019**, 81, e22931	21
280	Human germline editing: Insights to future clinical treatment of diseases. **2019**, 10, 470-475	0
279	Natural Cerebral Aneurysm and Spontaneous Subarachnoid Hemorrhage in Mammals Other Than Man: Is There a Scope for Comparative Medicine?. **2019**, 122, 384-389	3
278	Programmable Molecular Scissors: Applications of a New Tool for Genome Editing in Biotech. **2019**, 14, 212-238	25
277	Homologous recombination-mediated targeted integration in monkey embryos using TALE nucleases. **2019**, 19, 7	4
276	Material solutions for delivery of CRISPR/Cas-based genome editing tools: Current status and future outlook. **2019**, 26, 40-66	58
275	Mosaicism in CRISPR/Cas9-mediated genome editing. **2019**, 445, 156-162	101
274	Delivery of CRISPR-Cas9 into Mouse Zygotes by Electroporation. **2019**, 1874, 179-190	8
273	Genome Editing: A New Horizon for Oral and Craniofacial Research. **2019**, 98, 36-45	9
272	Creating Genetically Modified Marmosets. **2019**, 335-353	3
271	Messenger RNA Delivery for Tissue Engineering and Regenerative Medicine Applications. **2019**, 25, 91-112	34
270	Application of CRISPR/Cas9 gene editing technique in the study of cancer treatment. **2020**, 97, 73-88	22
269	Quantitative Rodent Brain Receptor Imaging. **2020**, 22, 223-244	13
268	Genome editing in animals: an overview. **2020**, 75-104	1
267	CRISPR/Cas9: Nature's gift to prokaryotes and an auspicious tool in genome editing. **2020**, 60, 91-102	10
266	Models of hyperkinetic disorders in primates. **2020**, 332, 108551	0
265	Key considerations in designing CRISPR/Cas9-carrying nanoparticles for therapeutic genome editing. **2020**, 12, 21001-21014	10
264	Generation of Nonhuman Primate Model of Cone Dysfunction through AAV-Mediated Ablation. **2020**, 18, 869-879	8

263	One-step genome editing of porcine zygotes through the electroporation of a CRISPR/Cas9 system with two guide RNAs. **2020**, 56, 614-621		7
262	CRISPR/Cas9 mediated GFP-human dentin matrix protein 1 (DMP1) promoter knock-in at the ROSA26 locus in mesenchymal stem cell for monitoring osteoblast differentiation. **2020**, 22, e3288		1
261	The dawn of non-human primate models for neurodevelopmental disorders. **2020**, 65, 160-168		7
260	Generation of knockout rabbits with X-linked severe combined immunodeficiency (X-SCID) using CRISPR/Cas9. *Scientific Reports*, **2020**, 10, 9957	4.9	7
259	Production of gene-edited pigs harboring orthologous human mutations via double cutting by CRISPR/Cas9 with long single-stranded DNAs as homology-directed repair templates by zygote injection. *Transgenic Research*, **2020**, 29, 587-598	3.3	5
258	Host as a Unique Ethical Dimension of Germline Interventions. **2020**, 20, 51-53		1
257	Two CRISPR/Cas9 Systems Developed in Thermomyces dupontii and Characterization of Key Gene Functions in Thermolide Biosynthesis and Fungal Adaptation. **2020**, 86,		1
256	First progeria monkey model generated using base editor. **2020**, 11, 862-865		0
255	CRISPR Start-Loss: A Novel and Practical Alternative for Gene Silencing through Base-Editing-Induced Start Codon Mutations. **2020**, 21, 1062-1073		7
254	Deletion of NKX3.1 via CRISPR/Cas9 Induces Prostatic Intraepithelial Neoplasia in C57BL/6 Mice. **2020**, 19, 1533033820964425		2
253	Genome editing of CCR5 by CRISPR-Cas9 in Mauritian cynomolgus macaque embryos. *Scientific Reports*, **2020**, 10, 18457	4.9	6
252	CRISPR/Cas: A Successful Tool for Genome Editing in Animal Models. **2020**, 30, 239-243		1
251	Gene Therapy Based on Nucleic Acid Nanostructure. **2020**, 9, e2001046		13
250	Precise allele-specific genome editing by spatiotemporal control of CRISPR-Cas9 via pronuclear transplantation. **2020**, 11, 4593		2
249	The roles of long noncoding RNAs in breast cancer metastasis. **2020**, 11, 749		22
248	Opportunities and limitations of genetically modified nonhuman primate models for neuroscience research. **2020**, 117, 24022-24031		15
247	Ethical and Welfare Implications of Genetically Altered Non-Human Primates for Biomedical Research. **2020**, 2, 151-176		1
246	Multiplex precise base editing in cynomolgus monkeys. **2020**, 11, 2325		19

245	CRISPR/Cas9 genome editing shows the important role of AZC_2928 gene in nitrogen-fixing bacteria of plants. **2020**, 20, 657-668		1
244	Introducing Chemistry Students to Emerging Technologies in Gene Editing, Their Applications, and Ethical Considerations. **2020**, 97, 1931-1943		3
243	Valproic Acid Significantly Improves CRISPR/Cas9-Mediated Gene Editing. **2020**, 9,		4
242	Description of CRISPR/Cas9 development and its prospect in hepatocellular carcinoma treatment. **2020**, 39, 97		7
241	Evaluation of multiple gene targeting in porcine embryos by the CRISPR/Cas9 system using electroporation. *Molecular Biology Reports*, **2020**, 47, 5073-5079	2.8	7
240	Genetic and epigenetic pathways in Down syndrome: Insights to the brain and immune system from humans and mouse models. **2020**, 251, 1-28		9
239	CRISPR/Cas9-Mediated Biallelic Knockout of IRX3 Reduces the Production and Survival of Somatic Cell-Cloned Bama Minipigs. **2020**, 10,		10
238	Polyethylenimine based magnetic nanoparticles mediated non-viral CRISPR/Cas9 system for genome editing. *Scientific Reports*, **2020**, 10, 4619	4.9	33
237	A review of CRISPR associated genome engineering: application, advances and future prospects of genome targeting tool for crop improvement. **2020**, 42, 1611-1632		15
236	CRISPR-based functional genomics for neurological disease. **2020**, 16, 465-480		35
235	A Handbook of Gene and Cell Therapy. **2020**,		1
234	Progress and challenges towards CRISPR/Cas clinical translation. **2020**, 154-155, 176-186		14
233	A roadmap to a columnar visual cortical prosthetic. **2020**, 16, 68-78		1
232	In vivo gene delivery mediated by non-viral vectors for cancer therapy. **2020**, 325, 249-275		74
231	Multivalent Peptide-Functionalized Bioreducible Polymers for Cellular Delivery of Various RNAs. **2020**, 21, 1613-1624		11
230	Genome editing methods in animal models. **2020**, 24, 8-16		15
229	Introduction to the Special Issue on CRISPR. **2020**, 63, 1-13		1
228	The rapidly advancing Class 2 CRISPR-Cas technologies: A customizable toolbox for molecular manipulations. **2020**, 24, 3256-3270		22

227	Ex vivo cell-based CRISPR/Cas9 genome editing for therapeutic applications. **2020**, 234, 119711		24
226	Coloration in Mammals. **2020**, 35, 357-366		30
225	CRISPR/Cas9 gene editing in a chicken model: current approaches and applications. **2020**, 61, 221-229		16
224	Innovative Precision Gene-Editing Tools in Personalized Cancer Medicine. **2020**, 7, 1902552		5
223	Lipid and polymer mediated CRISPR/Cas9 gene editing. **2020**, 8, 4369-4386		8
222	Bioethical issues in genome editing by CRISPR-Cas9 technology. **2020**, 44, 110-120		13
221	Resources for functional genomic studies of health and development in nonhuman primates. **2020**, 171 Suppl 70, 174-194		2
220	Synthetic multi-layer nanoparticles for CRISPR-Cas9 genome editing. **2021**, 168, 55-78		20
219	Therapeutic genome editing in cardiovascular diseases. **2021**, 168, 147-157		6
218	Effective Delivery of the CRISPR/Cas9 System Enabled by Functionalized Mesoporous Silica Nanoparticles for GFP-Tagged Paxillin Knock-In. **2021**, 4, 2000072		7
217	Strategies in the delivery of Cas9 ribonucleoprotein for CRISPR/Cas9 genome editing. **2021**, 11, 614-648		66
216	Induction of core symptoms of autism spectrum disorder by in vivo CRISPR/Cas9-based gene editing in the brain of adolescent rhesus monkeys. **2021**, 66, 937-946		1
215	gene mutation by pair truncated sgRNA/Cas9-D10A in cynomolgus monkeys. **2021**, 42, 469-477		5
214	CRISPR□as systems in bioactive peptide research. **2021**, 285-307		
213	CRISPR-Cas9: A method for establishing rat models of drug metabolism and pharmacokinetics. **2021**, 11, 2973-2982		6
212	Postnatal therapeutic approaches in genetic neurodevelopmental disorders. **2021**, 16, 414-422		3
211	Nanomaterials for Protein Delivery in Anticancer Applications. *Pharmaceutics*, **2021**, 13,	6.4	13
210	Empowering of reproductive health of farm animals through genome editing technology. 2, 4		0

209	CRISPR based bacterial genome editing and removal of pathogens. **2021**, 179, 77-92		
208	Comparison of the effects of introducing the CRISPR/Cas9 system by microinjection and electroporation into porcine embryos at different stages. **2021**, 14, 7		12
207	Current status of the application of gene editing in pigs. **2021**, 67, 177-187		6
206	Protocol for De Novo Gene Targeting Via In Utero Electroporation. **2021**, 2312, 309-320		
205	Comparison of Genetically Engineered Immunodeficient Animal Models for Nonclinical Testing of Stem Cell Therapies. *Pharmaceutics*, **2021**, 13,	6.4	2
204	Generation and Breeding of -Transgenic Marmoset Monkeys: Cell Chimerism and Implications for Disease Modeling. **2021**, 10,		4
203	One-Step Generation of Multiple Gene-Edited Pigs by Electroporation of the CRISPR/Cas9 System into Zygotes to Reduce Xenoantigen Biosynthesis. **2021**, 22,		7
202	Generation of nonhuman primate retinitis pigmentosa model by in situ knockout of RHO in rhesus macaque retina. **2021**, 66, 374-385		0
201	Prospects of genome editing using CRISPR/CAS or how to master genetic scissors. Nobel Prize in Chemistry 2020. **2021**, 93, 113-128		
200	Applications of genome editing on laboratory animals. **2021**, 23677221993141		3
199	Bi-functionalized aminoguanidine-PEGylated periodic mesoporous organosilica nanoparticles: a promising nanocarrier for delivery of Cas9-sgRNA ribonucleoproteine. **2021**, 19, 95		0
198	Gene Therapy to the Retina and the Cochlea. *Frontiers in Neuroscience*, **2021**, 15, 652215	5.1	5
197	CRISPR/Cas9 Mediated High Efficiency Knockout of Myosin Essential Light Chain Gene in the Pacific Oyster (Crassostrea Gigas). **2021**, 23, 215-224		1
196	Evolution and Biology of CRISPR System: A New Era Tool for Genome Editing in Plants. 1		2
195	Assisted Reproductive Techniques and Genetic Manipulation in the Common Marmoset. **2021**,		2
194	Primate Organoids and Gene-Editing Technologies toward Next-Generation Biomedical Research. **2021**, 39, 1332-1342		3
193	Miniaturized head-mounted microscope for whole-cortex mesoscale imaging in freely behaving mice. **2021**, 18, 417-425		9
192	Genetic Manipulation of the Equine Oocyte and Embryo. **2021**, 99, 103394		0

191	Latest Advances of Virology Research Using CRISPR/Cas9-Based Gene-Editing Technology and Its Application to Vaccine Development. **2021**, 13,		6
190	Progress of genome editing technology and developmental biology useful for radiation research. **2021**, 62, i53-i63		0
189	In vivo enrichment of busulfan-resistant germ cells for efficient production of transgenic avian models. *Scientific Reports*, **2021**, 11, 9127	4.9	1
188	CRISPR: A new paradigm of theranostics. **2021**, 33, 102350		3
187	Accelerated passage of gene-modified monkeys by hormone-induced precocious puberty. **2021**, 8, nwab083		1
186	Sleep Disorders in Children With Autism Spectrum Disorder: Insights From Animal Models, Especially Non-human Primate Model. **2021**, 15, 673372		
185	T-complex protein 1 subunit zeta-2 (CCT6B) deficiency induces murine teratospermia. **2021**, 9, e11545		2
184	CRISPR Adventures in China. **2021**, 4, 304-306		
183	Supramolecular Nanosubstrate-Mediated Delivery for CRISPR/Cas9 Gene Disruption and Deletion. **2021**, 17, e2100546		1
182	CRISPR/Cas9 in cancer: An attempt to the present trends and future prospects. **2021**,		
181	The Moral Status of Cognitively Enhanced Monkeys and Other Novel Beings. **2021**, 30, 492-503		0
180	Impact of CRISPR-Cas9-Based Genome Engineering in Farm Animals. **2021**, 8,		3
179	Screening and validation of genome-edited animals. **2021**, 236772211016922		3
178	Pollen-Specific CRISPR/Cas9 System to Increase Heritable Gene Mutations in Maize. **2021**, 11, 751		2
177	Cyclin D1 gene expression is essential for cell cycle progression from the maternal-to-zygotic transition during blastoderm development in Japanese quail. **2021**, 476, 249-258		2
176	Amnion signals are essential for mesoderm formation in primates. **2021**, 12, 5126		9
175	Embryo-Engineered Nonhuman Primate Models: Progress and Gap to Translational Medicine. **2021**, 2021, 9898769		0
174	Chromatin Alterations in Neurological Disorders and Strategies of (Epi)Genome Rescue. **2021**, 14,		0

173	Asian Mouse Mutagenesis Resource Association (AMMRA): mouse genetics and laboratory animal resources in the Asia Pacific. **2021**, 1	0
172	CRISPR-Cas9 genome engineering: trends in medicine and health. **2021**,	1
171	How Does Bank Diversification Affect Efficiency? Insights of the Central Europe. 097215092110268	
170	The rise of developmental biology in China. **2021**,	1
169	Severe Spontaneous Atherosclerosis in two Korat Breed Cats is Comparable to Human Atherosclerosis. **2021**, 188, 52-61	1
168	pDNA and mRNA vaccines. **2022**, 157-205	0
167	Programming Molecular Circuitry and Intracellular Computing with Framework Nucleic Acids. **2021**, 77-103	
166	Biological implications and limitations of a cynomolgus monkey with naturally occurring Parkinson's disease. **2021**, 42, 138-140	2
165	Erratic journey of CRISPR/Cas9 in oncology from bench-work to successful-clinical therapy. **2021**, 27, 100289	2
164	Molecular Network for Management of Neurodegenerative Diseases and their Translational Importance using Animal Biotechnology as a Tool in Preclinical Studies. **2021**, 219-235	
163	Genome Editing of Monkey. **2017**, 1630, 141-152	2
162	Encyclopedia of Global Bioethics. **2015**, 1-9	2
161	Encyclopedia of Global Bioethics. **2016**, 1375-1382	1
160	Neuroscience Research Using Non-human Primate Models and Genome Editing. **2017**, 73-81	1
159	A detailed procedure for CRISPR/Cas9-mediated gene editing in tilapia. **2021**, 848, 3865-3881	4
158	CRISPR-Cas systems: Overview, innovations and applications in human disease research and gene therapy. **2020**, 18, 2401-2415	25
157	CRISPR-Cas9 system: A genome-editing tool with endless possibilities. **2020**, 319, 36-53	16
156	Savanna Monkeys: The Genus Chlorocebus. **2019**,	6

155	Marmosets are stars of Japan's ambitious brain project. **2014**, 514, 151-2	30
154	Altered neurogenesis and disrupted expression of synaptic proteins in prefrontal cortex of SHANK3-deficient non-human primate. **2017**, 27, 1293-1297	52
153	Toward precise CRISPR DNA fragment editing and predictable 3D genome engineering. **2021**, 12, 828-856	1
152	Multiplexed sgRNA Expression Allows Versatile Single Non-repetitive DNA Labeling and Endogenous Gene Regulation.	2
151	Amnion signals are essential for mesoderm formation in primates.	5
150	Immunostimulatory guide RNAs mediate potent antiviral response.	1
149	Genetically modified pigs are protected from classical swine fever virus.	1
148	Haplotype-phased common marmoset embryonic stem cells for genome editing using CRISPR/Cas9.	1
147	Successful CRISPR/Cas9 mediated homologous recombination in a chicken cell line. **2018**, 7, 238	6
146	Successful CRISPR/Cas9 mediated homologous recombination in a chicken cell line. **2018**, 7, 238	6
145	Efficient and versatile CRISPR engineering of human neurons in culture to model neurological disorders. **2016**, 1, 13	19
144	A Biophysical Model of CRISPR/Cas9 Activity for Rational Design of Genome Editing and Gene Regulation. **2016**, 12, e1004724	72
143	The meganuclease I-SceI containing nuclear localization signal (NLS-I-SceI) efficiently mediated mammalian germline transgenesis via embryo cytoplasmic microinjection. **2014**, 9, e108347	14
142	CRISPR-Cas9-based knockout of the prion protein and its effect on the proteome. **2014**, 9, e114594	42
141	CRISPR/Cas9 as tool for functional study of genes involved in preimplantation embryo development. **2015**, 10, e0120501	11
140	Highly efficient gene inactivation by adenoviral CRISPR/Cas9 in human primary cells. **2017**, 12, e0182974	32
139	Experimental primates and non-human primate (NHP) models of human diseases in China: current status and progress. **2014**, 35, 447-64	29
138	The big bang of genome editing technology: development and application of the CRISPR/Cas9 system in disease animal models. **2016**, 37, 191-204	6

137	Generation of genetically modified mice using CRISPR/Cas9 and haploid embryonic stem cell systems. **2016**, 37, 205-13		7
136	Application of the genome editing tool CRISPR/Cas9 in non-human primates. **2016**, 37, 214-9		15
135	Applications of CRISPR/Cas9 for Gene Editing in Hereditary Movement Disorders. **2016**, 9, 136-43		13
134	The 18S rRNA m A methyltransferase METTL5 promotes mouse embryonic stem cell differentiation. **2020**, 21, e49863		15
133	Advances in genetic engineering of domestic animals. **2016**, 3, 1		4
132	Genome editing, or CRISPR/CAS9 a panacea for many incurable diseases or the first step to a gene apocalypse?. **2020**, 03, 50-77		2
131	Base editors: a powerful tool for generating animal models of human diseases. **2018**, 2, 242-245		1
130	Rapid generation of novel models of RAG1 deficiency by CRISPR/Cas9-induced mutagenesis in murine zygotes. **2016**, 7, 12962-74		8
129	Contemporary Animal Models For Human Gene Therapy Applications. **2015**, 15, 531-40		9
128	CRISPR/Cas9 System and its Research Progress in Gene Therapy. **2019**, 19, 1912-1919		1
127	Efficient Production of Biallelic RAG1 Knockout Mouse Embryonic Stem Cell Using CRISPR/Cas9. **2019**, 17, e2205		3
126	genome editing thrives with diversified CRISPR technologies. **2018**, 39, 58-71		8
125	Comparative study of the transfection efficiency of commonly used viral vectors in rhesus monkey () brains. **2017**, 38, 88-95		12
124	CRISPR/Cas system: An emerging technology in stem cell research. **2019**, 11, 937-956		14
123	Myostatin gene knockout mediated by Cas9-D10A nickase in chicken DF1 cells without off-target effect. **2017**, 30, 743-748		10
122	The First Chinese Edited Babies: A Leap of Faith in Science. **2019**, 23, 197-199		5
121	Generation of transgenic ducks by crispr/CAS9-mediated gene inser-tion combined with the sperm-mediated gene transfer (SMGT). **2019**, 35, 427-436		5
120	CRISPR/Cas9 System-Mediated Gene Editing in the Fujian Oysters (Crassostrea angulate) by Electroporation. *Frontiers in Marine Science*, **2021**, 8,	4.5	0

119	Stimulus-Responsive Smart Nanoparticles-Based CRISPR-Cas Delivery for Therapeutic Genome Editing. **2021**, 22,		2
118	Efficient marmoset genome engineering by autologous embryo transfer and CRISPR/Cas9 technology. *Scientific Reports*, **2021**, 11, 20234	4.9	1
117	First monkeys with customized mutations born.		2
116	Developing CRISPR/Cas9 Technologies for Research and Medicine. **2014**, 1,		
115	Methods, Principles and Application of Gene Editing. **2015**, 05, 32-41		
114	Generation of genetically modified animals by genome editing technology. **2015**, 26, 626-632		
113	Modifications du génome des cellules germinales et de l'embryon humains. **2016**, 200, 993-1012		
112	RNA-guided Genome Editing Tool CRISPR-Cas9: Its Applications and Achievements in Model and Crop Plants. **2016**, 10, 3035-3042		
111	The Future for Genomic Medicine in Inflammatory Diseases. **2017**, 53-72		
110	Designer Effectors for Editing and Regulating Complex Genomes. **2017**, 137-157		
109	Chapter 11 Germline Gene Therapy in the Era of Precise Genome Editing: How Far Should We Go?. **2018**, 157-171		1
108	[Usage of common marmoset to drug discovery research]. **2018**, 152, 94-99		
107	Principles of Computer Numerical Controlled Machining Applied to Cranial Microsurgery.		0
106	Research progress of gene editing technology CRISPR/Cas9 system in animal gene editing. **2018**, 4, 015-019		1
105	Extensive adaptive immune response of AAVs and Cas proteins in non-human primates.		
104	A Maternal Transcription Factor, Junction Mediating and Regulatory Protein is Required for Preimplantation Development in the Mouse. **2019**, 23, 285-295		
103	Induction of core symptoms of autism spectrum disorders by in vivo CRISPR/Cas9-based gene editing in the brain of adolescent rhesus monkeys.		
102	Gene modification strategies using AO-mediated exon skipping and CRISPR/Cas9 as potential therapies for Duchenne muscular dystrophy patients. **2020**, 4, 37-42		

101	PROSPECTS FOR GENE EDITING USING CRISPR/CAS, OR HOW TO MASTER THE GENETIC SCISSORS Nobel Prize in Chemistry for 2020. **2020**, 31-49		
100	Gene Editing. **2020**, 147-164		
99	A brief review of genome editing technology for generating animal models. **2020**, 7, 123		1
98	Generation of nonhuman primate retinitis pigmentosa model by in situ knockout of RHO in rhesus macaque retina.		
97	Mutating PINK1 gene by paired truncated sgRNA/Cas9-D10A in Cynomolgus Monkey.		0
96	Germline modification of domestic animals. **2015**, 12, 93-104		10
95	CRISPR-Mediated Epigenome Editing. **2016**, 89, 471-486		23
94	Pulmonary surfactant synthesis in miRNA-26a-1/miRNA-26a-2 double knockout mice generated using the CRISPR/Cas9 system. **2017**, 9, 355-365		7
93	Applications of CRISPR/Cas9 in the Mammalian Central Nervous System. **2017**, 90, 567-581		27
92	CRISPR/Cas9 System for Efficient Genome Editing and Targeting in the Mouse NIH/3T3 Cells. **2019**, 11, 149-155		2
91	[Establishment and verification of a mouse model of gene H435Y mutation]. **2018**, 38, 1245-1249		1
90	Delivery of CRISPR-Cas9 system for screening and editing RNA binding proteins in cancer. **2021**, 180, 114042		5
89	Animal Cell Technology. **2021**, 579-685		
88	CRISPR/Cas System and Factors Affecting Its Precision and Efficiency.. *Frontiers in Cell and Developmental Biology*, **2021**, 9, 761709	5.7	0
87	Pathogen detection strategy based on CRISPR. **2021**, 107036		2
86	Generation of in situ CRISPR-mediated primary and metastatic cancer from monkey liver. **2021**, 6, 411		2
85	Single-Cell Analysis of Embryoids Reveals Lineage Diversification Roadmaps of Early Human Development.		1
84	Delivery Methods for CRISPR/Cas Reagents. **2022**, 113-148		

83	CRISPR-based genome editing through the lens of DNA repair.. **2022**, 82, 348-388		5
82	Optogenetic Animal Models of Depression: From Mice to Men. **2022**, 167-191		
81	The use of new CRISPR tools in cardiovascular research and medicine.. **2022**,		1
80	The mouse resource at National Resource Center for Mutant Mice.. **2022**, 33, 143		
79	Non-viral nanocarriers for CRISPR-Cas9 gene editing system delivery. **2022**, 435, 135116		2
78	mRNA, a Revolution in Biomedicine.. *Pharmaceutics*, **2021**, 13,	6.4	2
77	Gene Editing Through CRISPR-Based Technology. **2022**, 23-92		
76	Development and Vision of CRISPR-Based Technology. **2022**, 1-22		
75	Triple gene editing in porcine embryos using electroporation alone or in combination with microinjection.. *Veterinary World*, **2022**, 15, 496-501	1.7	1
74	Systematic Investigation of the Effects of Multiple SV40 Nuclear Localization Signal Fusion on the Genome Editing Activity of Purified SpCas9.. *Bioengineering*, **2022**, 9,	5.3	0
73	Modeling genetic diseases in nonhuman primates through embryonic and germline modification: Considerations and challenges.. *Science Translational Medicine*, **2022**, 14, eabf4879	17.5	0
72	as a key gene drives the early primate telencephalon development.. *Science Advances*, **2022**, 8, eabl7263	14.3	0
71	Maternal separation induces autism spectrum disorder in young rhesus monkeys.		
70	Strategies to overcome the main challenges of the use of CRISPR/Cas9 as a replacement for cancer therapy.. *Molecular Cancer*, **2022**, 21, 64	42.1	3
69	Base-edited Cynomolgus Monkeys mimic core symptoms of STXBP1 encephalopathy.. *Molecular Therapy*, **2022**,	11.7	1
68	mRNA??????????. *Scientia Sinica Vitae*, **2021**,	1.4	
67	Generation of mutant pigs by lipofection-mediated genome editing in embryos.. *Scientific Reports*, **2021**, 11, 23806	4.9	3
66	Genetically modified large animal models for investigating neurodegenerative diseases.. *Cell and Bioscience*, **2021**, 11, 218	9.8	2

65	Application of CRISPR/Cas9 in Alzheimer's Disease.. *Frontiers in Neuroscience*, **2021**, 15, 803894	5.1	1
64	Gene editing and its applications in biomedicine.. *Science China Life Sciences*, **2022**, 65, 660	8.5	3
63	mRNA vaccines: the most recent clinical applications of synthetic mRNA.. *Archives of Pharmacal Research*, **2022**, 45, 245	6.1	2
62	Beyond safety: mapping the ethical debate on heritable genome editing interventions. *Humanities and Social Sciences Communications*, **2022**, 9,	2.8	1
61	Rational guide RNA engineering for small-molecule control of CRISPR/Cas9 and gene editing.. *Nucleic Acids Research*, **2022**,	20.1	0
60	Data_Sheet_1.docx. **2019**,		
59	Table_1.XLSX. **2019**,		
58	Table_2.XLSX. **2019**,		
57	Data_Sheet_1.docx. **2018**,		
56	Application of CRISPR/Cas9 System in Establishing Large Animal Models. *Frontiers in Cell and Developmental Biology*, **2022**, 10,	5.7	1
55	The Use and Access to CRISPR in Historically Socioeconomically Disadvantaged and Marginalized Communities. **2022**, 77-87		
54	Understanding on CRISPR/Cas9 mediated cutting-edge approaches for cancer therapeutics. *Discover Oncology*, **2022**, 13,		
53	The cell cycle stage of bovine zygotes electroporated with CRISPR/Cas9-RNP affects frequency of Loss-of-heterozygosity editing events. *Scientific Reports*, **2022**, 12,	4.9	
52	CRISPR-Cas9-Based Technology and Its Relevance to Gene Editing in Parkinson Disease. *Pharmaceutics*, **2022**, 14, 1252	6.4	2
51	CRISPR/Cas9 a simple, inexpensive and effective technique for gene editing. *Molecular Biology Reports*,	2.8	0
50	Generation of C-to-G transversion in mouse embryos via CG editors. *Transgenic Research*,	3.3	0
49	CRISPR/Cas9 editing of the MYO7A gene in rhesus macaque embryos to generate a primate model of Usher syndrome type 1B. *Scientific Reports*, **2022**, 12,	4.9	0
48	Progress in modern reproductive biology research in China. *Biology of Reproduction*,	3.9	

47	Novel Nanotechnology-Based Vector Delivery in CRISPR System for Transgene-Free Editing. **2022**, 279-294		
46	Efficient Modification and Preparation of Circular DNA for Expression in Cell Culture.		
45	Genome centric engineering using ZFNs, TALENs and CRISPR-Cas9 systems for trait improvement and disease control in Animals. *Veterinary Research Communications*,	2.9	2
44	CRISPR/Cas Genome Editing—Can It Become a Game Changer in Future Fisheries Sector?. *Frontiers in Marine Science*, 9,	4.5	0
43	A Novel Anti-Cancer Therapy: CRISPR/Cas9 Gene Editing. *Frontiers in Pharmacology*, 13,	5.6	0
42	Up-regulated LRRN2 expression as a marker for graft quality in living donor liver transplantation.		0
41	Reproductive Embryo Editing: Attending to Justice. **2022**, 52, 26-33		0
40	FAR knockout significantly inhibits Chilo suppressalis survival and transgene expression of double-stranded FAR in rice exhibits strong pest resistance.		0
39	Genome characterization and CRISPR-Cas9 editing of a human neocentromere.		
38	CRISPR/Cas9 genome editing to create nonhuman primate models for studying stem cell therapies for HIV infection. **2022**, 19,		0
37	Genetic Engineering of Nonhuman Primate Models for Studying Neurodevelopmental Disorders. **2022**, 235-262		0
36	Stimuli-responsive delivery strategies for controllable gene editing in tumor therapeutics. **2022**, 10, 7694-7707		0
35	The Bibliometric Landscape of Gene Editing Innovation and Regulation in the Worldwide. **2022**, 11, 2682		0
34	CRISPR/Cas9 system: a reliable and facile genome editing tool in modern biology.		0
33	Current understanding of osteoarthritis pathogenesis and relevant new approaches. **2022**, 10,		5
32	Gene editing monkeys: Retrospect and outlook. 10,		1
31	Targeting the MALAT1 gene with the CRISPR/Cas9 technique in prostate cancer. **2022**, 44,		0
30	Advances in CRISPR/Cas9. **2022**, 2022, 1-13		2

29	Single-cell analysis of embryoids reveals lineage diversification roadmaps of early human development. **2022**, 29, 1402-1419.e8	2
28	Polymer-Mediated Delivery of CRISPR-Cas9 Genome-Editing Therapeutics for CNS Disease. **2022**, 229-258	0
27	Cancer Gene Therapy. 1-11	0
26	CRISPR-Cas9 Technology for the Creation of Biological Avatars Capable of Modeling and Treating Pathologies: From Discovery to the Latest Improvements. **2022**, 11, 3615	0
25	Gene editing strategies to treat lysosomal disorders: The example of mucopolysaccharidoses. **2022**, 191, 114616	0
24	Integration of CRISPR/Cas9 with artificial intelligence for improved cancer therapeutics. **2022**, 20,	1
23	Visualizing advances in the future of primate neuroscience research. **2023**, 4, 100064	0
22	CRISPR/Cas systems: Delivery and application in gene therapy. 10,	0
21	Optimization of CRISPR□Cas system for clinical cancer therapy.	0
20	Efficient modification and preparation of circular DNA for expression in cell culture. **2022**, 5,	2
19	CRISPR: a tool with potential for genomic reprogramming in neurological disorders.	0
18	Genome Editing to Abrogate Muscle Atrophy. **2023**, 157-176	0
17	Whole genome sequencing of CCR5 CRISPR-Cas9-edited Mauritian cynomolgus macaque blastomeres reveals large-scale deletions and off-target edits. 4,	0
16	Progresses, Challenges, and Prospects of CRISPR/Cas9 Gene-Editing in Glioma Studies. **2023**, 15, 396	0
15	Genome Engineering in Livestock: Recent Advances and Regulatory Framework. **2022**, 3, 14-30	0
14	Towards human organ generation using interspecies blastocyst complementation: Challenges and perspectives for therapy. 11,	0
13	Application of CRISPR/Cas9 Technology in Cancer Treatment: A Future Direction. **2023**, 30, 1954-1976	0
12	A reverse genetic approach in geckos with the CRISPR/Cas9 system by oocyte microinjection. **2023**, 497, 26-32	0

11	Generation of Transgenic Sperm Expressing GFP by Lentivirus Transduction of Spermatogonial Stem Cells In Vivo in Cynomolgus Monkeys. **2023**, 10, 104	0
10	Production of chickens with GFP-knockin in the Z chromosome and detection of GFP-positive chicks in the embryonic stage.	0
9	The history, use, and challenges of therapeutic somatic cell and germline gene editing. **2023**,	0
8	Dissecting embryonic and extra-embryonic lineage crosstalk with stem cell co-culture.	0
7	Immunomodulation: general review of the current state-of-the-art and new therapeutic strategies for targeting the immune system. 14,	0
6	AMSTNDel273Cmutation withFGF5knockout sheep by CRISPR/Cas9 promotes skeletal muscle myofiber hyperplasia via MEK-ERK-FOSL1 axis.	0
5	Current Approaches to and the Application of Intracytoplasmic Sperm Injection (ICSI) for Avian Genome Editing. **2023**, 14, 757	0
4	Advances in CRISPR/Cas gene therapy for inborn errors of immunity. 14,	0
3	Nanotechnology and CRISPR/Cas9 system for sustainable agriculture.	0
2	CRISPR-Cas System: The Current and Emerging Translational Landscape. **2023**, 12, 1103	0
1	Precision medicine: Overview and challenges to clinical implementation. **2023**, 513-529	0