CITATION REPORT List of articles citing



DOI: 10.1126/science.1178817 Science, 2009, 326, 1501.

Source: https://exaly.com/paper-pdf/46574593/citation-report.pdf

Version: 2024-04-28

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

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

#	Paper	IF	Citations
1579	A single plant resistance gene promoter engineered to recognize multiple TAL effectors from disparate pathogens. 2009 , 106, 20526-31		115
1578	Plant science. DNA binding made easy. <i>Science</i> , 2009 , 326, 1491-2	33.3	29
1577	Mutagenesis of 18 type III effectors reveals virulence function of XopZ(PXO99) in Xanthomonas oryzae pv. oryzae. 2010 , 23, 893-902		76
1576	Xanthomonas AvrBs3 family-type III effectors: discovery and function. 2010 , 48, 419-36		696
1575	The long and winding road: virulence effector proteins of plant pathogenic bacteria. <i>Cellular and Molecular Life Sciences</i> , 2010 , 67, 3425-34	10.3	20
1574	Identification of an avirulence gene, avrxa5, from the rice pathogen Xanthomonas oryzae pv. oryzae. 2010 , 53, 1440-9		15
1573	Chromosome engineering: power tools for plant genetics. 2010 , 28, 605-10		29
1572	The repeat domain of the type III effector protein PthA shows a TPR-like structure and undergoes conformational changes upon DNA interaction. 2010 , 78, 3386-95		38
1571	Promoter elements of rice susceptibility genes are bound and activated by specific TAL effectors from the bacterial blight pathogen, Xanthomonas oryzae pv. oryzae. 2010 , 187, 1048-1057		133
1570	Regulation and secretion of Xanthomonas virulence factors. 2010 , 34, 107-33		314
1569	The Xanthomonas citri effector protein PthA interacts with citrus proteins involved in nuclear transport, protein folding and ubiquitination associated with DNA repair. 2010 , 11, 663-75		35
1568	Plant immunity: towards an integrated view of plant-pathogen interactions. 2010 , 11, 539-48		1989
1567	Rice xa13 recessive resistance to bacterial blight is defeated by induction of the disease susceptibility gene Os-11N3. 2010 , 22, 3864-76		298
1566	Local gene regulation details a recognition code within the LacI transcriptional factor family. 2010 , 6, e1000989		19
1565	Targeting DNA double-strand breaks with TAL effector nucleases. 2010 , 186, 757-61		1333
1564	Regulation of selected genome loci using de novo-engineered transcription activator-like effector (TALE)-type transcription factors. 2010 , 107, 21617-22		211
1563	Small-molecule regulators that mimic transcription factors. 2010 , 1799, 768-74		22

1562	Genome engineering with zinc-finger nucleases. 2011 , 188, 773-82	638
1561	Assembly of designer TAL effectors by Golden Gate cloning. 2011 , 6, e19722	160
1560	Move over ZFNs. 2011 , 29, 681-4	83
1559	A TALE of two nucleases: gene targeting for the masses?. 2011 , 8, 147-9	58
1558	Efficient design and assembly of custom TALEN and other TAL effector-based constructs for DNA targeting. 2011 , 39, e82	1525
1557	Two new complete genome sequences offer insight into host and tissue specificity of plant pathogenic Xanthomonas spp. 2011 , 193, 5450-64	146
1556	The Molecular Mechanisms of Rice Resistance to the Bacterial Blight Pathogen, Xanthomonas oryzae pathovar oryzae. 2011 , 60, 51-87	5
1555	Towards artificial metallonucleases for gene therapy: recent advances and new perspectives. 2011 , 3, 1935-66	18
1554	Targeted gene disruption in somatic zebrafish cells using engineered TALENs. 2011, 29, 697-8	507
1553	TAL effectors are remote controls for gene activation. 2011 , 14, 47-53	111
1552	Reengineering Cro protein functional specificity with an evolutionary code. 2011 , 413, 914-28	4
1551	Innate immunity in rice. 2011 , 16, 451-9	111
1550	Nematode Effector Proteins: Targets and Functions in Plant Parasitism. 2011, 327-354	12
1549	Effectors in PlantInsect Interactions. 2011 , 355-375	2
1548	Assembly of custom TALE-type DNA binding domains by modular cloning. 2011, 39, 5790-9	156
1547	Modularly assembled designer TAL effector nucleases for targeted gene knockout and gene replacement in eukaryotes. 2011 , 39, 6315-25	324
1546	Knockout rats generated by embryo microinjection of TALENs. 2011 , 29, 695-6	507
1545	Meganucleases and other tools for targeted genome engineering: perspectives and challenges for gene therapy. 2011 , 11, 11-27	262

1544	Colonization of rice leaf blades by an African strain of Xanthomonas oryzae pv. oryzae depends on a new TAL effector that induces the rice nodulin-3 Os11N3 gene. 2011 , 24, 1102-13	141
1543	Genome sequencing and comparative analysis of the carrot bacterial blight pathogen, Xanthomonas hortorum pv. carotae M081, for insights into pathogenicity and applications in molecular diagnostics. 2011 , 12, 580-94	12
1542	Functional domains and motifs of bacterial type III effector proteins and their roles in infection. 2011 , 35, 1100-25	211
1541	The early bird catches the worm: new technologies for the Caenorhabditis elegans toolkit. 2011 , 12, 793-801	40
1540	The prospects for designer single-stranded RNA-binding proteins. 2011 , 18, 256-61	53
1539	A TALE nuclease architecture for efficient genome editing. 2011 , 29, 143-8	1598
1538	TALEs of genome targeting. 2011 , 29, 135-6	140
1537	Efficient construction of sequence-specific TAL effectors for modulating mammalian transcription. 2011 , 29, 149-53	620
1536	Homologous recombination-based gene therapy for the primary immunodeficiencies. 2011 , 1246, 131-40	6
1535	Improving immunity in crops: new tactics in an old game. 2011 , 14, 468-76	62
1534	Genetic engineering of human pluripotent cells using TALE nucleases. 2011 , 29, 731-4	955
1533	TAL effectors: customizable proteins for DNA targeting. <i>Science</i> , 2011 , 333, 1843-6 33.3	766
1532	When you can't trust the DNA: RNA editing changes transcript sequences. <i>Cellular and Molecular Life Sciences</i> , 2011 , 68, 567-86	139
1531	Primer and interviews: advances in targeted gene modification. Interview by Julie C. Kiefer. 2011 , 240, 2688-96	10
1530	Generation of novel nucleases with extended specificity by rational and combinatorial strategies. 2011 , 12, 1495-500	14
1529	New frontiers in oilseed biotechnology: meeting the global demand for vegetable oils for food, feed, biofuel, and industrial applications. 2011 , 22, 252-9	175
1528	TAL nucleases (TALNs): hybrid proteins composed of TAL effectors and FokI DNA-cleavage domain. 2011 , 39, 359-72	411
1527	De novo-engineered transcription activator-like effector (TALE) hybrid nuclease with novel DNA binding specificity creates double-strand breaks. 2011 , 108, 2623-8	339

1526 . **2011**,

1525	Hpa2 required by HrpF to translocate Xanthomonas oryzae transcriptional activator-like effectors into rice for pathogenicity. 2011 , 77, 3809-18	39
1524	A novel TALE nuclease scaffold enables high genome editing activity in combination with low toxicity. 2011 , 39, 9283-93	580
1523	Characterization of Xanthomonas oryzae-responsive cis-acting element in the promoter of rice race-specific susceptibility gene Xa13. 2011 , 4, 300-9	39
1522	Context dependence between subdomains in the DNA binding interface of the I-CreI homing endonuclease. 2011 , 39, 6124-36	19
1521	Quantitative and qualitative stem rust resistance factors in barley are associated with transcriptional suppression of defense regulons. 2011 , 7, e1002208	45
1520	A zinc finger protein array for the visual detection of specific DNA sequences for diagnostic applications. 2011 , 39, e29	25
1519	A combinatorial amino acid code for RNA recognition by pentatricopeptide repeat proteins. 2012 , 8, e1002910	347
1518	Creating highly specific nucleases by fusion of active restriction endonucleases and catalytically inactive homing endonucleases. 2012 , 40, 847-60	30
1517	Gene therapy for primary immunodeficiencies. 2012 , 24, 731-8	9
1516	Sequence-specific cleavage of the RNA strand in DNA-RNA hybrids by the fusion of ribonuclease H with a zinc finger. 2012 , 40, 11563-70	14
1515	Iterative capped assembly: rapid and scalable synthesis of repeat-module DNA such as TAL effectors from individual monomers. 2012 , 40, e117	160
1514	Bacterial effectors target the plant cell nucleus to subvert host transcription. 2012 , 7, 217-21	27
1513	Engineering synthetic TAL effectors with orthogonal target sites. 2012 , 40, 7584-95	128
1512	RNA-seq pinpoints a Xanthomonas TAL-effector activated resistance gene in a large-crop genome. 2012 , 109, 19480-5	80
1511	Lentiviral vector induced insertional haploinsufficiency of Ebf1 causes murine leukemia. 2012 , 20, 1187-95	49
1510	EENdb: a database and knowledge base of ZFNs and TALENs for endonuclease engineering. 2013 , 41, D415-22	40
1509	Highly efficient bi-allelic mutation rates using TALENs in Xenopus tropicalis. 2012 , 1, 1273-6	62

1508	Scientific opinion addressing the safety assessment of plants developed using Zinc Finger Nuclease 3 and other Site-Directed Nucleases with similar function. 2012 , 10, 2943	80
1507	Pollen Sterility—A Promising Approach to Gene Confinement and Breeding for Genetically Modified Bioenergy Crops. 2012 , 2, 295-315	4
1506	Transcription activator-like effector hybrids for conditional control and rewiring of chromosomal transgene expression. 2012 , 2, 897	54
1505	Genome Engineering of Crops with Designer Nucleases. 2012 , 5, 42-50	87
1504	The type III effector HsvG of the gall-forming Pantoea agglomerans mediates expression of the host gene HSVGT. 2012 , 25, 231-40	17
1503	Targeted gene therapies: tools, applications, optimization. 2012 , 47, 264-81	22
1502	Prospects and challenges of induced pluripotent stem cells as a source of hematopoietic stem cells. 2012 , 1266, 179-88	8
1501	Genome-enabled perspectives on the composition, evolution, and expression of virulence determinants in bacterial plant pathogens. 2012 , 50, 111-32	20
1500	Non-transgenic genome modifications in a hemimetabolous insect using zinc-finger and TAL effector nucleases. 2012 , 3, 1017	109
1499	Atomistic modeling of protein-DNA interaction specificity: progress and applications. 2012 , 22, 397-405	31
1498	Catch me if you can: bacterial effectors and plant targets. 2012 , 17, 644-55	220
1497	Plant-bacterial pathogen interactions mediated by type III effectors. 2012 , 15, 469-76	152
1496	Chimeric TALE recombinases with programmable DNA sequence specificity. 2012 , 40, 11163-72	111
1495	Advances in targeted genome editing. 2012 , 16, 268-77	127
1494	Specific DNA-RNA hybrid recognition by TAL effectors. 2012 , 2, 707-13	25
1493	Controlling rice bacterial blight in Africa: needs and prospects. 2012 , 159, 320-8	67
1492	Reverse genetic approaches in zebrafish. 2012 , 39, 421-33	77
1491	Efficient targeted gene disruption in Xenopus embryos using engineered transcription activator-like effector nucleases (TALENs). 2012 , 109, 17484-9	217

1490	and inhibition of epigenetic modifiers. 2012 , 40, 5368-77	157
1489	In vivo genome editing using a high-efficiency TALEN system. 2012 , 491, 114-8	744
1488	Structural basis for sequence-specific recognition of DNA by TAL effectors. <i>Science</i> , 2012 , 335, 720-3 33.3	432
1487	Addition of transcription activator-like effector binding sites to a pathogen strain-specific rice bacterial blight resistance gene makes it effective against additional strains and against bacterial leaf streak. 2012 , 195, 883-893	79
1486	Efficient and specific modifications of the Drosophila genome by means of an easy TALEN strategy. 2012 , 39, 209-15	173
1485	Rapid and cost-effective gene targeting in rat embryonic stem cells by TALENs. 2012 , 39, 275-80	63
1484	Retake the center stagenew development of rat genetics. 2012 , 39, 261-8	16
1483	Recognition of methylated DNA by TAL effectors. 2012 , 22, 1502-4	97
1482	Artificial proteins from combinatorial approaches. 2012 , 30, 512-20	25
1481	The crystal structure of TAL effector PthXo1 bound to its DNA target. <i>Science</i> , 2012 , 335, 716-9 33.3	419
	The crystal structure of TAL effector PthXo1 bound to its DNA target. <i>Science</i> , 2012 , 335, 716-9 33.3 Generation of Mouse Mutants by Genotype-Driven Mutagenesis. 2012 , 91-114	419
1480		419 31
1480	Generation of Mouse Mutants by Genotype-Driven Mutagenesis. 2012 , 91-114	
1480 1479	Generation of Mouse Mutants by Genotype-Driven Mutagenesis. 2012, 91-114 Transcription activator-like effector proteins induce the expression of the frataxin gene. 2012, 23, 883-90 A robust dual reporter system to visualize and quantify gene expression mediated by transcription	31
1480 1479 1478	Generation of Mouse Mutants by Genotype-Driven Mutagenesis. 2012, 91-114 Transcription activator-like effector proteins induce the expression of the frataxin gene. 2012, 23, 883-90 A robust dual reporter system to visualize and quantify gene expression mediated by transcription activator-like effectors. 2012, 14, 8	31
1480 1479 1478	Generation of Mouse Mutants by Genotype-Driven Mutagenesis. 2012, 91-114 Transcription activator-like effector proteins induce the expression of the frataxin gene. 2012, 23, 883-90 A robust dual reporter system to visualize and quantify gene expression mediated by transcription activator-like effectors. 2012, 14, 8 Modular recognition of nucleic acids by PUF, TALE and PPR proteins. 2012, 8, 699-708 Overcoming transcription activator-like effector (TALE) DNA binding domain sensitivity to cytosine	31 7 57
1480 1479 1478 1477 1476	Generation of Mouse Mutants by Genotype-Driven Mutagenesis. 2012, 91-114 Transcription activator-like effector proteins induce the expression of the frataxin gene. 2012, 23, 883-90 A robust dual reporter system to visualize and quantify gene expression mediated by transcription activator-like effectors. 2012, 14, 8 Modular recognition of nucleic acids by PUF, TALE and PPR proteins. 2012, 8, 699-708 Overcoming transcription activator-like effector (TALE) DNA binding domain sensitivity to cytosine methylation. 2012, 287, 38427-32 Transcription activator-like (TAL) effectors targeting OsSWEET genes enhance virulence on diverse rice (Oryza sativa) varieties when expressed individually in a TAL effector-deficient strain of	31 7 57 151

1472	Dissecting neural function using targeted genome engineering technologies. 2012 , 3, 603-10	34
1471	Targeted gene disruption with engineered zinc-finger nucleases (ZFNs). 2012 , 917, 129-41	6
1470	Engineering imaging probes and molecular machines for nanomedicine. 2012 , 55, 843-61	8
1469	Evolution of Xanthomonas Gene Content: Gene Gain/Loss History and Species Divergence. 2012 , 11, 954-961	1
1468	Reprogrammed cell delivery for personalized medicine. 2012 , 64, 1477-87	14
1467	Molecular tools and approaches for optogenetics. 2012 , 71, 1033-8	49
1466	TALE nucleases: tailored genome engineering made easy. 2012 , 23, 644-50	160
1465	Precision editing of large animal genomes. 2012 , 80, 37-97	83
1464	Targeting DNA With Fingers and TALENs. 2012 , 1, e3	85
1463	TAL Effector-Nucleotide Targeter (TALE-NT) 2.0: tools for TAL effector design and target prediction. 2012 , 40, W117-22	466
1462	TAL effector RVD specificities and efficiencies. 2012 , 30, 593-5	243
1461	Crystal structure of a TALE protein reveals an extended N-terminal DNA binding region. 2012 , 22, 1716-20	74
1460	Gene editing: not just for translation anymore. 2011 , 9, 28-31	51
1459	Simple methods for generating and detecting locus-specific mutations induced with TALENs in the zebrafish genome. 2012 , 8, e1002861	364
1458	TAL effectors target the C-terminal domain of RNA polymerase II (CTD) by inhibiting the prolyl-isomerase activity of a CTD-associated cyclophilin. 2012 , 7, e41553	17
1457	Biotechnological strategies for engineering plants with durable resistance to fungal and bacterial pathogens. 2012 , 329-342	7
1456	Structural modeling of TAL effector-DNA interactions. 2012 , 21, 471-4	16
1455	Foundations for the design and implementation of synthetic genetic circuits. 2012 , 13, 406-20	183

1454	FLASH assembly of TALENs for high-throughput genome editing. 2012 , 30, 460-5	830
1453	Comprehensive interrogation of natural TALE DNA-binding modules and transcriptional repressor domains. 2012 , 3, 968	257
1452	Optimized TAL effector nucleases (TALENs) for use in treatment of sickle cell disease. 2012 , 8, 1255-63	112
1451	An Integrated Chip for the High-Throughput Synthesis of Transcription Activator-like Effectors. 2012 , 124, 8633-8636	2
1450	An integrated chip for the high-throughput synthesis of transcription activator-like effectors. 2012 , 51, 8505-8	39
1449	Programmable genetic switches to control transcriptional machinery of pluripotency. 2012 , 7, 798-809	31
1448	Recent advances in targeted genome engineering in mammalian systems. 2012 , 7, 1074-87	41
1447	A transcription activator-like effector toolbox for genome engineering. 2012 , 7, 171-92	480
1446	Targeted DNA mutagenesis for the cure of chronic viral infections. 2012 , 86, 8920-36	90
1445	Engineering molecular circuits using synthetic biology in mammalian cells. 2012 , 3, 209-34	37
1444	Pathogen-Responsive cis-Elements. 2012 , 363-378	2
1443	Cassava Bacterial Blight: Using Genomics for the Elucidation and Management of an Old Problem. 2012 , 5, 117-126	39
1442	Modeling human neurodegenerative diseases in transgenic systems. 2012 , 131, 535-63	86
1441	Genetics in non-genetic model systems. 2012 , 22, 79-85	3
1440	Multilocus sequence analysis and type III effector repertoire mining provide new insights into the evolutionary history and virulence of Xanthomonas oryzae. 2012 , 13, 288-302	32
1439	Efficient targeted mutagenesis of the chordate Ciona intestinalis genome with zinc-finger nucleases. 2012 , 54, 535-45	36
1438	Targeted transcriptional repression using a chimeric TALE-SRDX repressor protein. 2012 , 78, 311-21	118
1437	Rapid and highly efficient construction of TALE-based transcriptional regulators and nucleases for genome modification. 2012 , 78, 407-16	92

1436	A rapid assay to quantify the cleavage efficiency of custom-designed nucleases in planta. 2013 , 82, 207-21	10
1435	Optical control of mammalian endogenous transcription and epigenetic states. 2013 , 500, 472-476	635
1434	From genetics of inflammatory bowel disease towards mechanistic insights. 2013 , 34, 371-8	67
1433	CAS9 transcriptional activators for target specificity screening and paired nickases for cooperative genome engineering. 2013 , 31, 833-8	1341
1432	Targeted gene disruption in the Xenopus tropicalis genome using designed TALE nucleases. 2013 , 30, 455-60	21
1431	Wheat Mds-1 encodes a heat-shock protein and governs susceptibility towards the Hessian fly gall midge. 2013 , 4, 2070	23
1430	TAL effectors: highly adaptable phytobacterial virulence factors and readily engineered DNA-targeting proteins. 2013 , 23, 390-8	99
1429	Generating hypoimmunogenic human embryonic stem cells by the disruption of beta 2-microglobulin. 2013 , 9, 806-13	46
1428	Mojo Hand, a TALEN design tool for genome editing applications. 2013 , 14, 1	332
1427	Five phylogenetically close rice SWEET genes confer TAL effector-mediated susceptibility to Xanthomonas oryzae pv. oryzae. 2013 , 200, 808-819	224
1426	The noncanonical type III secretion system of Xanthomonas translucens pv. graminis is essential for forage grass infection. 2013 , 14, 576-88	31
1425	Hybrid Plant Systems for Breeding and Gene Confinement in Bioenergy Crops. 2013 , 141-171	
1424	Molecular tools for functional genomics in filamentous fungi: recent advances and new strategies. 2013 , 31, 1562-74	74
1423	Neuromuscular disorders in zebrafish: state of the art and future perspectives. 2013 , 15, 405-19	7
1422	Nuclear reprogramming of sperm and somatic nuclei in eggs and oocytes. 2013 , 12, 133-149	27
1421	Double nicking by RNA-guided CRISPR Cas9 for enhanced genome editing specificity. 2013 , 154, 1380-9	2348
1420	Multiplexed activation of endogenous genes by CRISPR-on, an RNA-guided transcriptional activator system. 2013 , 23, 1163-71	546
1419	TALENs: customizable molecular DNA scissors for genome engineering of plants. 2013 , 40, 271-9	75

(2013-2013)

1418	Promise and issues of genetically modified crops. 2013 , 16, 255-60	43
1417	TALE-mediated modulation of transcriptional enhancers in vivo. 2013 , 10, 762-7	68
1416	Mutant resources for the functional analysis of the rice genome. 2013 , 6, 596-604	84
1415	Compact designer TALENs for efficient genome engineering. 2013 , 4, 1762	76
1414	Advances in genetic modification of pluripotent stem cells. 2013, 31, 994-1001	22
1413	Live visualization of chromatin dynamics with fluorescent TALEs. 2013 , 20, 1321-4	206
1412	Advanced genetic tools for plant biotechnology. 2013 , 14, 781-93	156
1411	On the front line: structural insights into plant-pathogen interactions. 2013 , 11, 761-76	79
1410	Chromosomal contact permits transcription between coregulated genes. 2013 , 155, 606-20	135
1409	Genome engineering using the CRISPR-Cas9 system. 2013 , 8, 2281-2308	6243
	Genome engineering using the CRISPR-Cas9 system. 2013 , 8, 2281-2308 New and TALENted genome engineering toolbox. 2013 , 113, 571-87	6243
1408		
1408	New and TALENted genome engineering toolbox. 2013 , 113, 571-87 Generation of targeted mouse mutants by embryo microinjection of TALEN mRNA. 2013 , 8, 2355-79 Exciting prospects for precise engineering of Caenorhabditis elegans genomes with CRISPR/Cas9.	43
1408 1407	New and TALENted genome engineering toolbox. 2013 , 113, 571-87 Generation of targeted mouse mutants by embryo microinjection of TALEN mRNA. 2013 , 8, 2355-79 Exciting prospects for precise engineering of Caenorhabditis elegans genomes with CRISPR/Cas9. 2013 , 195, 635-42	43
1408 1407 1406	New and TALENted genome engineering toolbox. 2013 , 113, 571-87 Generation of targeted mouse mutants by embryo microinjection of TALEN mRNA. 2013 , 8, 2355-79 Exciting prospects for precise engineering of Caenorhabditis elegans genomes with CRISPR/Cas9. 2013 , 195, 635-42	43 50 52
1408 1407 1406	New and TALENted genome engineering toolbox. 2013, 113, 571-87 Generation of targeted mouse mutants by embryo microinjection of TALEN mRNA. 2013, 8, 2355-79 Exciting prospects for precise engineering of Caenorhabditis elegans genomes with CRISPR/Cas9. 2013, 195, 635-42 RNA-guided genome editing in plants using a CRISPR-Cas system. 2013, 6, 1975-83 TALENoffer: genome-wide TALEN off-target prediction. 2013, 29, 2931-2 RNA-guided nucleases: a new era for engineering the genomes of model and nonmodel organisms.	43 50 52 492
1408 1407 1406 1405	New and TALENted genome engineering toolbox. 2013, 113, 571-87 Generation of targeted mouse mutants by embryo microinjection of TALEN mRNA. 2013, 8, 2355-79 Exciting prospects for precise engineering of Caenorhabditis elegans genomes with CRISPR/Cas9. 2013, 195, 635-42 RNA-guided genome editing in plants using a CRISPR-Cas system. 2013, 6, 1975-83 TALENoffer: genome-wide TALEN off-target prediction. 2013, 29, 2931-2 RNA-guided nucleases: a new era for engineering the genomes of model and nonmodel organisms. 2013, 195, 303-8	43 50 52 492 70

1400	Creating a TALE protein with unbiased 5'-T binding. 2013 , 441, 262-5		18
1399	Transcription activator-like effector nuclease (TALEN)-mediated gene correction in integration-free thalassemia induced pluripotent stem cells. 2013 , 288, 34671-9		128
1398	Demonstration of CRISPR/Cas9/sgRNA-mediated targeted gene modification in Arabidopsis, tobacco, sorghum and rice. 2013 , 41, e188		828
1397	Structure based design of protein linkers for zinc finger nuclease. 2013 , 587, 3231-5		11
1396	A modified TALEN-based system for robust generation of knock-out human pluripotent stem cell lines and disease models. 2013 , 14, 773		27
1395	High-efficiency system for construction and evaluation of customized TALENs for silkworm genome editing. 2013 , 288, 683-90		16
1394	A Potential New Therapeutic Approach for Friedreich Ataxia: Induction of Frataxin Expression With TALE Proteins. 2013 , 2, e119		22
1393	Engineering customized TALE nucleases (TALENs) and TALE transcription factors by fast ligation-based automatable solid-phase high-throughput (FLASH) assembly. 2013 , Chapter 12, Unit 12.10	6	20
1392	Locus-specific editing of histone modifications at endogenous enhancers. 2013 , 31, 1133-6		295
1391	Dnmt3L antagonizes DNA methylation at bivalent promoters and favors DNA methylation at gene bodies in ESCs. 2013 , 155, 121-34		124
1390	Orthogonal Cas9 proteins for RNA-guided gene regulation and editing. 2013 , 10, 1116-21		615
1389	Precise and heritable genome editing in evolutionarily diverse nematodes using TALENs and CRISPR/Cas9 to engineer insertions and deletions. 2013 , 195, 331-48		136
1388	Engineering RNA-binding proteins for biology. 2013 , 280, 3734-54		69
1387	Quantitative analysis of TALE-DNA interactions suggests polarity effects. 2013 , 41, 4118-28		135
1386	A TALEN genome-editing system for generating human stem cell-based disease models. 2013 , 12, 238-5	1	407
1385	Multiplex genome engineering using CRISPR/Cas systems. <i>Science</i> , 2013 , 339, 819-23	33.3	9746
1384	RNA-guided human genome engineering via Cas9. <i>Science</i> , 2013 , 339, 823-6	33.3	6363
1383	Characterization and DNA-binding specificities of Ralstonia TAL-like effectors. 2013 , 6, 1318-30		44

(2013-2013)

1382	activatorlike effector genes. 2013 , 31, 76-81	191
1381	TAL effectors: function, structure, engineering and applications. 2013 , 23, 93-9	77
1380	TALE1 from Xanthomonas axonopodis pv. manihotis acts as a transcriptional activator in plant cells and is important for pathogenicity in cassava plants. 2013 , 14, 84-95	32
1379	TALENs: a widely applicable technology for targeted genome editing. 2013 , 14, 49-55	1072
1378	Efficient disruption of endogenous Bombyx gene by TAL effector nucleases. 2013 , 43, 17-23	62
1377	A library of TAL effector nucleases spanning the human genome. 2013 , 31, 251-8	289
1376	Using defined finger-finger interfaces as units of assembly for constructing zinc-finger nucleases. 2013 , 41, 2455-65	24
1375	Transposable elements as genetic regulatory substrates in early development. 2013 , 23, 218-26	103
1374	Dissecting the roles of miR-302/367 cluster in cellular reprogramming using TALE-based repressor and TALEN. 2013 , 1, 218-25	50
1373	Reprogramming to pluripotency using designer TALE transcription factors targeting enhancers. 2013 , 1, 183-97	70
1372	Mapping of mitochondrial RNA-protein interactions by digital RNase footprinting. 2013, 5, 839-48	28
1371	tale-Based Genetic Diversity of Chinese Isolates of the Citrus Canker Pathogen Xanthomonas citri subsp. citri. 2013 , 97, 1187-1194	14
1370	Tell me a tale of TALEs. <i>Molecular Biotechnology</i> , 2013 , 53, 228-35	24
1369	TAL effector nuclease (TALEN) engineering. 2013 , 978, 63-72	18
1368	Transgenic chickens. 2013 , 55, 207-16	32
1367	A do-it-yourself protocol for simple transcription activator-like effector assembly. 2013 , 15, 3	18
1366	Barcoding cells using cell-surface programmable DNA-binding domains. 2013 , 10, 403-6	40
1365	Human pluripotent stem cells: an emerging model in developmental biology. 2013 , 140, 705-17	120

1364	RNA guides genome engineering. 2013 , 31, 208-9	60
1363	Efficient targeted mutagenesis in medaka using custom-designed transcription activator-like effector nucleases. 2013 , 193, 739-49	89
1362	TALEN-based gene correction for epidermolysis bullosa. 2013 , 21, 1151-9	202
1361	Artificial repressors for controlling gene expression in bacteria. 2013 , 49, 4325-7	35
1360	Plant genome engineering with sequence-specific nucleases. 2013 , 64, 327-50	344
1359	Site-directed nucleases: a paradigm shift in predictable, knowledge-based plant breeding. 2013 , 31, 375-83	114
1358	Transcription activator-like effector nucleases (TALENs): a highly efficient and versatile tool for genome editing. 2013 , 110, 1811-21	167
1357	Transposable-Element Vectors and Other Methods to Genetically Modify Drosophila and Other Insects. 2013 , 373-415	
1356	Concluding remarks on the special issue dedicated to bacterial secretion systems: function and structural biology. 2013 , 164, 683-7	4
1355	Current genomic editing approaches in avian transgenesis. 2013 , 190, 144-8	8
1354	Breaking the DNA-binding code of Ralstonia solanacearum TAL effectors provides new possibilities to generate plant resistance genes against bacterial wilt disease. 2013 , 199, 773-86	72
1353	New advances in molecular recognition based on biomolecular scaffolds. 2013 , 405, 5679-85	4
1352	Emerging tools for synthetic genome design. 2013 , 35, 359-70	15
1351	Genome engineering at the dawn of the golden age. 2013 , 14, 135-58	94
1350	Generation of gene disruptions by transcription activator-like effector nucleases (TALENs) in Xenopus tropicalis embryos. 2013 , 3, 21	41
1349	Advances in Mammalian cell line development technologies for recombinant protein production. 2013 , 6, 579-603	203
1348	A CRISPR way to engineer the human genome. 2013 , 14, 107	30
1347	ZFN, TALEN, and CRISPR/Cas-based methods for genome engineering. 2013 , 31, 397-405	2526

1346	TALEN or Cas9 - rapid, efficient and specific choices for genome modifications. 2013 , 40, 281-9	120
1345	TALEN-mediated editing of the mouse Y chromosome. 2013 , 31, 530-2	89
1344	Reading frame correction by targeted genome editing restores dystrophin expression in cells from Duchenne muscular dystrophy patients. 2013 , 21, 1718-26	141
1343	Engineering plant disease resistance based on TAL effectors. 2013 , 51, 383-406	77
1342	Genomic resources for functional analyses of the rice genome. 2013 , 16, 157-63	28
1341	Biological and biomedical applications of engineered nucleases. <i>Molecular Biotechnology</i> , 2013 , 55, 54-62	28
1340	Synthetic gene expression perturbation systems with rapid, tunable, single-gene specificity in yeast. 2013 , 41, e57	97
1339	Designer TAL effectors induce disease susceptibility and resistance to Xanthomonas oryzae pv. oryzae in rice. 2013 , 6, 781-9	60
1338	Vika/vox, a novel efficient and specific Cre/loxP-like site-specific recombination system. 2013 , 41, e37	34
1337	Mutagenesis of individual pentatricopeptide repeat motifs affects RNA binding activity and reveals functional partitioning of Arabidopsis PROTON gradient regulation3. 2013 , 25, 3079-88	34
1336	Comparing zinc finger nucleases and transcription activator-like effector nucleases for gene targeting in Drosophila. 2013 , 3, 1717-25	52
1335	Targeted mutagenesis tools for modelling psychiatric disorders. 2013 , 354, 9-25	12
1334	Designing Non-viral Targeted Integrating Vectors for Genome Engineering in Vertebrates. 2013, 41-67	
1333	Engineered Meganucleases for Genome Engineering Purposes. 2013 , 147-185	3
1332	Targeted Plasmid Integration into the Human Genome by Engineered Recombinases. 2013, 267-284	
1331	Gene Site-Specific Insertion in Plants. 2013 , 287-315	8
1330	Nuclease Mediated Targeted Genome Modification in Mammalian Cells. 2013, 327-352	1
1329	Genome editing of human pluripotent stem cells to generate human cellular disease models. 2013 , 6, 896-904	94

1328	A large-scale in vivo analysis reveals that TALENs are significantly more mutagenic than ZFNs generated using context-dependent assembly. 2013 , 41, 2769-78		110
1327	Predicting promoters targeted by TAL effectors in plant genomes: from dream to reality. <i>Frontiers in Plant Science</i> , 2013 , 4, 333	6.2	18
1326	Two- and three-input TALE-based AND logic computation in embryonic stem cells. 2013 , 41, 9967-75		54
1325	Targeted Mutagenesis, Mouse. 2013 , 12-16		
1324	Quantitative assay for TALEN activity at endogenous genomic loci. 2013, 2, 363-7		33
1323	Targeted gene disruption to cure HIV. 2013 , 8, 217-23		44
1322	High-efficiency and heritable gene targeting in mouse by transcription activator-like effector nucleases. 2013 , 41, e120		77
1321	Differential integrity of TALE nuclease genes following adenoviral and lentiviral vector gene transfer into human cells. 2013 , 41, e63		216
1320	Nuclear jasmonate and salicylate signaling and crosstalk in defense against pathogens. <i>Frontiers in Plant Science</i> , 2013 , 4, 72	6.2	106
1319	Writing and rewriting the epigenetic code of cancer cells: from engineered proteins to small molecules. 2013 , 83, 563-76		27
1318	An efficient strategy for TALEN-mediated genome engineering in Drosophila. 2013, 41, e163		48
1317	Disease resistance or growth: the role of plant hormones in balancing immune responses and fitness costs. <i>Frontiers in Plant Science</i> , 2013 , 4, 155	6.2	352
1316	Production of Sry knockout mouse using TALEN via oocyte injection. 2013 , 3, 3136		49
1315	The BEN domain is a novel sequence-specific DNA-binding domain conserved in neural transcriptional repressors. 2013 , 27, 602-14		47
1314	Efficient nonmeiotic allele introgression in livestock using custom endonucleases. 2013 , 110, 16526-31		216
1313	Structure of the AvrBs3-DNA complex provides new insights into the initial thymine-recognition mechanism. 2013 , 69, 1707-16		26
1312	Targeted chromosomal deletions and inversions in zebrafish. 2013 , 23, 1008-17		87
1311	Phytopathogen type III effectors as probes of biological systems. 2013 , 6, 230-40		18

1310	Genomic editing opens new avenues for zebrafish as a model for neurodegeneration. 2013, 127, 461-70	46
1309	Evaluation of warfarin resistance using transcription activator-like effector nucleases-mediated vitamin K epoxide reductase knockout HEK293 cells. 2013 , 11, 1556-64	46
1308	Cancer of mice and men: old twists and new tails. 2013, 230, 4-16	2
1307	Function of PPR proteins in plastid gene expression. 2013 , 10, 1446-56	50
1306	Pentatricopeptide repeats: modular blocks for building RNA-binding proteins. 2013, 10, 1426-32	32
1305	Targeted Myostatin Gene Editing in Multiple Mammalian Species Directed by a Single Pair of TALE Nucleases. 2013 , 2, e112	31
1304	Sculpting genomes with a hammer and chisel. 2013 , 10, 839-40	3
1303	Plant microRNAs display differential 3' truncation and tailing modifications that are ARGONAUTE1 dependent and conserved across species. 2013 , 25, 2417-28	82
1302	Highly efficient targeted mutagenesis in mice using TALENs. 2013, 195, 703-13	54
1301	Recent advances in developing nucleic acid-based HBV therapy. 2013 , 8, 1489-504	6
1300	Synergistic and tunable human gene activation by combinations of synthetic transcription factors. 2013 , 10, 239-42	181
1299	Comparison of TALEN scaffolds in Xenopus tropicalis. 2013 , 2, 1364-70	27
1298	TALEN-based gene disruption in the dengue vector Aedes aegypti. 2013 , 8, e60082	80
1297	Site specific mutation of the Zic2 locus by microinjection of TALEN mRNA in mouse CD1, C3H and C57BL/6J oocytes. 2013 , 8, e60216	50
1296	High efficiency In Vivo genome engineering with a simplified 15-RVD GoldyTALEN design. 2013 , 8, e65259	46
1295	A simple and efficient method for assembling TALE protein based on plasmid library. 2013 , 8, e66459	13
1294	An improved method for TAL effectors DNA-binding sites prediction reveals functional convergence in TAL repertoires of Xanthomonas oryzae strains. 2013 , 8, e68464	69
1293	ULtiMATE system for rapid assembly of customized TAL effectors. 2013 , 8, e75649	27

1292	TAL effectors specificity stems from negative discrimination. 2013 , 8, e80261	14
1291	Rapid assembly of customized TALENs into multiple delivery systems. 2013 , 8, e80281	13
1290	TAL effector specificity for base 0 of the DNA target is altered in a complex, effector- and assay-dependent manner by substitutions for the tryptophan in cryptic repeat -1. 2013 , 8, e82120	35
1289	Targeted mutagenesis in the malaria mosquito using TALE nucleases. 2013 , 8, e74511	59
1288	A nucleolus-predominant piggyBac transposase, NP-mPB, mediates elevated transposition efficiency in mammalian cells. 2014 , 9, e89396	4
1287	Bacterial delivery of TALEN proteins for human genome editing. 2014 , 9, e91547	23
1286	Activation of silenced cytokine gene promoters by the synergistic effect of TBP-TALE and VP64-TALE activators. 2014 , 9, e95790	6
1285	Hybrid lentivirus-phiC31-int-NLS vector allows site-specific recombination in murine and human cells but induces DNA damage. 2014 , 9, e99649	10
1284	TALEN/CRISPR-mediated eGFP knock-in add-on at the OCT4 locus does not impact differentiation of human embryonic stem cells towards endoderm. 2014 , 9, e114275	20
1283	Antiviral interferon-beta signaling induced by designed transcription activator-like effectors (TALE). 2014 , 9, e114288	3
1282	[Targeted genome modifications using TALEN]. 2014 , 30, 186-93	О
1281	Leveraging synthetic biology for tissue engineering applications. 2014 , 34, 015-022	5
1280	Developments in the tools and methodologies of synthetic biology. 2014 , 2, 60	63
1279	The Little Fly that Could: Wizardry and Artistry of Drosophila Genomics. 2014 , 5, 385-414	8
1278	Tipping points in seaweed genetic engineering: scaling up opportunities in the next decade. 2014 , 12, 3025-45	16
1278		16
	12, 3025-45 Regulation of Pathogenicity-related Genes in Phytopathogenic Bacteria and Plant. 2014 , 48, 105-109	

1274	Approaches for establishing the function of regulatory genetic variants involved in disease. 2014 , 6, 92	31
1273	Direct activation of human and mouse Oct4 genes using engineered TALE and Cas9 transcription factors. 2014 , 42, 4375-90	124
1272	Highly efficient genome editing via 2A-coupled co-expression of two TALEN monomers. 2014 , 7, 628	12
1271	Precision Genetic Engineering. 2014 , 187-205	1
1270	Decoding the Epigenomes of Herbaceous Plants. 2014 , 69, 247-277	5
1269	Efficient gene targeting of the Rosa26 locus in mouse zygotes using TALE nucleases. 2014 , 588, 3982-8	35
1268	Emerging gene editing strategies for Duchenne muscular dystrophy targeting stem cells. 2014 , 5, 148	15
1267	Code-assisted discovery of TAL effector targets in bacterial leaf streak of rice reveals contrast with bacterial blight and a novel susceptibility gene. 2014 , 10, e1003972	94
1266	Aptamer-guided gene targeting in yeast and human cells. 2014 , 42, e61	16
1265	Engineered TAL Effector modulators for the large-scale gain-of-function screening. 2014 , 42, e114	5
1264	The I-TevI nuclease and linker domains contribute to the specificity of monomeric TALENs. 2014 , 4, 1155-65	17
1263	Simultaneous gene editing by injection of mRNAs encoding transcription activator-like effector nucleases into mouse zygotes. 2014 , 34, 1649-58	23
1262	Role of epigenetics in expression of recombinant proteins from mammalian cells. 2014 , 2, 403-419	11
1261	Type II restriction endonucleasesa historical perspective and more. 2014 , 42, 7489-527	150
1260	A multiplexed transcription activator-like effector system for detecting specific DNA sequences. 2014 , 3, 953-5	2
1259	Comparison of TALE designer transcription factors and the CRISPR/dCas9 in regulation of gene expression by targeting enhancers. 2014 , 42, e155	135
1258	Making designer mutants in model organisms. 2014 , 141, 4042-54	90
1257	Conserved higher-order chromatin regulates NMDA receptor gene expression and cognition. 2014 , 84, 997-1008	60

1256	TALEN and CRISPR/Cas9-mediated genome editing in the early-branching metazoan Nematostella vectensis. 2014 , 5, 5486	88
1255	Genome editing. The new frontier of genome engineering with CRISPR-Cas9. <i>Science</i> , 2014 , 346, 12580963.3	3479
1254	The use of mitochondria-targeted endonucleases to manipulate mtDNA. 2014 , 547, 373-97	30
1253	Genome engineering in human cells. 2014 , 546, 93-118	10
1252	Nuclease-mediated genome editing: At the front-line of functional genomics technology. 2014 , 56, 2-13	48
1251	Germline transgenesis in rodents by pronuclear microinjection of Sleeping Beauty transposons. 2014 , 9, 773-93	50
1250	Determining the specificities of TALENs, Cas9, and other genome-editing enzymes. 2014 , 546, 47-78	54
1249	Recent progress in genome engineering techniques in the silkworm, Bombyx mori. 2014 , 56, 14-25	77
1248	Programmable DNA-binding proteins from Burkholderia provide a fresh perspective on the TALE-like repeat domain. 2014 , 42, 7436-49	41
1247	Altered CpG methylation in sporadic Alzheimer's disease is associated with APP and MAPT dysregulation. 2014 , 23, 648-56	96
1246	Can genome engineering be used to target cancer-associated enhancers?. 2014 , 6, 493-501	7
1245	Designing and testing the activities of TAL effector nucleases. 2014 , 1114, 203-19	5
1244	Construction and application of site-specific artificial nucleases for targeted gene editing. 2014 , 1101, 267-303	8
1243	SAPTA: a new design tool for improving TALE nuclease activity. 2014 , 42, e47	43
1242	Functional genetics for all: engineered nucleases, CRISPR and the gene editing revolution. 2014 , 5, 43	69
1241	Targeted gene disruption by use of transcription activator-like effector nuclease (TALEN) in the water flea Daphnia pulex. 2014 , 14, 95	14
1240	The functional significance of common polymorphisms in zinc finger transcription factors. 2014 , 4, 1647-55	6
1239	Engineered zinc-finger transcription factors activate OCT4 (POU5F1), ISOX2, IKLF4, It-MYC (MYC) and miR302/367. 2014 , 42, 6158-67	19

Genome Editing in Somatic Cells Using Zinc Finger Nucleases and Transcription Activator-Like Effector Nucleases. **2014**, 369-378

Repeat 1 of TAL effectors affects target specificity for the base at position zero. 2014 , 42, 7160-9	31
1236 Genome engineering using the CRISPR/Cas system. 2014 , 4, 69	7
1235 Gene Editing. 2014, 229-248	2
Editing livestock genomes with site-specific nucleases. 2013 , 26, 74-82	15
1233 An online bioinformatics tool predicts zinc finger and TALE nuclease off-target cleavage. 2014 , 42, e42	100
Nuclease-mediated gene editing by homologous recombination of the human globin locus. 2014 , 42, 1365-78	79
Comprehensive analysis of the specificity of transcription activator-like effector nucleases. 2014 , 42, 5390-402	67
TALENs facilitate targeted genome editing in human cells with high specificity and low cytotoxicity. 2014 , 42, 6762-73	130
An efficient antiviral strategy for targeting hepatitis B virus genome using transcription activator-like effector nucleases. 2014 , 22, 303-311	116
1228 Nucleases for genome editing in crops. 2014 , 3, 14-19	8
1227 Generation of knockout mice using engineered nucleases. 2014 , 69, 85-93	22
TALEN-mediated Drosophila genome editing: protocols and applications. 2014 , 69, 22-31	9
1225 Plant genome engineering in full bloom. 2014 , 19, 284-7	71
Genetic and chemical correction of cholesterol accumulation and impaired autophagy in hepatic and neural cells derived from Niemann-Pick Type C patient-specific iPS cells. 2014 , 2, 866-80	150
1223 Engineering nucleases for gene targeting: safety and regulatory considerations. 2014 , 31, 18-27	69
The role of variable DNA tandem repeats in bacterial adaptation. 2014 , 38, 119-41	92
Expanding the scope of site-specific recombinases for genetic and metabolic engineering. 2014 , 111, 1-15	53

1220	Genome engineering with targetable nucleases. 2014 , 83, 409-39	392
1219	Gene editing at CRISPR speed. 2014 , 32, 309-12	29
1218	Engineering Xenopus embryos for phenotypic drug discovery screening. 2014 , 69-70, 225-46	47
1217	Application of TALEs, CRISPR/Cas and sRNAs as trans-acting regulators in prokaryotes. 2014 , 29, 46-54	29
1216	Precision genetic modifications: a new era in molecular biology and crop improvement. 2014 , 239, 921-39	41
1215	TALE activators regulate gene expression in a position- and strand-dependent manner in mammalian cells. 2014 , 443, 1189-94	17
1214	Broad specificity profiling of TALENs results in engineered nucleases with improved DNA-cleavage specificity. 2014 , 11, 429-35	157
1213	An efficient TALEN mutagenesis system in rice. 2014 , 69, 2-8	20
1212	CRISPR-Cas systems for editing, regulating and targeting genomes. 2014 , 32, 347-55	2182
1211	A guide to genome engineering with programmable nucleases. 2014 , 15, 321-34	853
1 2 10	Nanomedicine: tiny particles and machines give huge gains. 2014 , 42, 243-59	21
1209	Conformational elasticity can facilitate TALE-DNA recognition. 2014 , 94, 347-64	5
1208	CRISPR/Cas9 for genome editing: progress, implications and challenges. 2014 , 23, R40-6	355
1207	CRISPR-Cas system: a powerful tool for genome engineering. 2014 , 85, 209-18	38
1206	Multiple copies of a linear donor fragment released in situ from a vector improve the efficiency of zinc-finger nuclease-mediated genome editing. 2014 , 21, 282-8	5
1205	From dead leaf, to new life: TAL effectors as tools for synthetic biology. 2014 , 78, 753-71	40
1204	A single-chain TALEN architecture for genome engineering. 2014 , 10, 446-53	14
1203	SunnyTALEN: a second-generation TALEN system for human genome editing. 2014 , 111, 683-91	20

120	TALE nickase mediates high efficient targeted transgene integration at the human multi-copy ribosomal DNA locus. 2014 , 446, 261-6	36
120	TALEN-mediated gene mutagenesis in rhesus and cynomolgus monkeys. 2014 , 14, 323-328	155
120	PTEN∄a PTEN isoform translated through alternative initiation, regulates mitochondrial function and energy metabolism. 2014 , 19, 836-48	151
119	Generation of improved humanized mouse models for human infectious diseases. 2014 , 410, 3-17	106
119	98 Principles of genetic circuit design. 2014 , 11, 508-20	551
119	Methods for targeted mutagenesis in zebrafish using TALENs. 2014 , 69, 76-84	21
119	Synthetic TAL effectors for targeted enhancement of transgene expression in plants. 2014 , 12, 436-46	15
119	Functional interpretation of non-coding sequence variation: concepts and challenges. 2014 , 36, 191-9	38
119	Both CRISPR/Cas-based nucleases and nickases can be used efficiently for genome engineering in Arabidopsis thaliana. 2014 , 79, 348-59	475
119	The last half-repeat of transcription activator-like effector (TALE) is dispensable and thereby TALE-based technology can be simplified. 2014 , 15, 690-7	5
119	Inhibiting replication of begomoviruses using artificial zinc finger nucleases that target viral-conserved nucleotide motif. 2014 , 48, 494-501	48
119	CEP290 gene transfer rescues Leber congenital amaurosis cellular phenotype. 2014 , 21, 662-72	100
119	90 Endonucleases: new tools to edit the mouse genome. 2014 , 1842, 1942-1950	48
118	Optogenetic brain interfaces. 2014 , 7, 3-30	64
118	88 Lignin bioengineering. 2014 , 26, 189-98	115
118	7 TALE: a tale of genome editing. 2014 , 114, 25-32	25
118	Synthetic nucleases for genome engineering in plants: prospects for a bright future. 2014 , 78, 727-41	181
118	Targeted genome engineering techniques in Drosophila. 2014 , 68, 29-37	55

1184	Designable DNA-binding domains enable construction of logic circuits in mammalian cells. 2014 , 10, 203-8	75
1183	Synthetic biology in mammalian cells: next generation research tools and therapeutics. 2014 , 15, 95-107	206
1182	Targeted genome modification technologies and their applications in crop improvements. 2014 , 33, 575-83	114
1181	Genetic and genomic tools for the marine annelid Platynereis dumerilii. 2014 , 197, 19-31	48
1180	Design, evaluation, and screening methods for efficient targeted mutagenesis with transcription activator-like effector nucleases in medaka. 2014 , 56, 98-107	55
1179	Programmable and highly resolved in vitro detection of 5-methylcytosine by TALEs. 2014 , 53, 6002-6	36
1178	Targeting and tracing of specific DNA sequences with dTALEs in living cells. 2014 , 42, e38	58
1177	Induced pluripotent stem cells in dermatology: potentials, advances, and limitations. 2014 , 4, a015164	16
1176	Tools for TAL effector design and target prediction. 2014 , 69, 121-7	14
1175	TALEN knockout of the PSIP1 gene in human cells: analyses of HIV-1 replication and allosteric integrase inhibitor mechanism. 2014 , 88, 9704-17	59
1174	The iCRISPR platform for rapid genome editing in human pluripotent stem cells. 2014 , 546, 215-50	52
1173	Genome engineering: the next genomic revolution. 2014 , 11, 1009-11	22
1172	Cellular reprogramming by transcription factor engineering. 2014 , 28, 1-9	6
1171	Efficient editing of malaria parasite genome using the CRISPR/Cas9 system. 2014 , 5, e01414-14	85
1170	The Genomics of Xanthomonas oryzae. 2014 , 127-150	6
1169	TALEN-mediated genome editing: prospects and perspectives. 2014 , 462, 15-24	80
1168	megaTALs: a rare-cleaving nuclease architecture for therapeutic genome engineering. 2014 , 42, 2591-601	128
1167	Controlling gene networks and cell fate with precision-targeted DNA-binding proteins and small-molecule-based genome readers. 2014 , 462, 397-413	16

1166	TAL effectorspathogen strategies and plant resistance engineering. 2014 , 204, 823-32	112
1165	Simultaneous editing of three homoeoalleles in hexaploid bread wheat confers heritable resistance to powdery mildew. 2014 , 32, 947-51	1161
1164	RNAseq analysis of cassava reveals similar plant responses upon infection with pathogenic and non-pathogenic strains of Xanthomonas axonopodis pv. manihotis. 2014 , 33, 1901-12	39
1163	Harnessing CRISPR-Cas9 immunity for genetic engineering. 2014 , 19, 114-119	52
1162	The new CRISPR-Cas system: RNA-guided genome engineering to efficiently produce any desired genetic alteration in animals. 2014 , 23, 707-16	51
1161	Xanthomonas axonopodis virulence is promoted by a transcription activator-like effector-mediated induction of a SWEET sugar transporter in cassava. 2014 , 27, 1186-98	140
1160	Expansion of the CRISPR-Cas9 genome targeting space through the use of H1 promoter-expressed guide RNAs. 2014 , 5, 4516	52
1159	Efficient strategies for TALEN-mediated genome editing in mammalian cell lines. 2014 , 69, 151-70	17
1158	Targeted genome regulation and modification using transcription activator-like effectors. 2014 , 281, 4583-97	11
1157	TAL effectors: tools for DNA targeting. 2014 , 13, 409-19	53
1157 1156	TAL effectors: tools for DNA targeting. 2014 , 13, 409-19 Efficient homologous recombination-mediated genome engineering in zebrafish using TALE nucleases. 2014 , 141, 3807-18	5393
	Efficient homologous recombination-mediated genome engineering in zebrafish using TALE	
1156	Efficient homologous recombination-mediated genome engineering in zebrafish using TALE nucleases. 2014 , 141, 3807-18 Generation of myostatin B knockout yellow catfish (Tachysurus fulvidraco) using transcription	93
1156	Efficient homologous recombination-mediated genome engineering in zebrafish using TALE nucleases. 2014, 141, 3807-18 Generation of myostatin B knockout yellow catfish (Tachysurus fulvidraco) using transcription activator-like effector nucleases. 2014, 11, 265-74 Exploring the transcription activator-like effectors scaffold versatility to expand the toolbox of	93
1156 1155 1154	Efficient homologous recombination-mediated genome engineering in zebrafish using TALE nucleases. 2014, 141, 3807-18 Generation of myostatin B knockout yellow catfish (Tachysurus fulvidraco) using transcription activator-like effector nucleases. 2014, 11, 265-74 Exploring the transcription activator-like effectors scaffold versatility to expand the toolbox of designer nucleases. 2014, 15, 13 The prospect of molecular therapy for Angelman syndrome and other monogenic neurologic	93 23 2
1156 1155 1154 1153	Efficient homologous recombination-mediated genome engineering in zebrafish using TALE nucleases. 2014, 141, 3807-18 Generation of myostatin B knockout yellow catfish (Tachysurus fulvidraco) using transcription activator-like effector nucleases. 2014, 11, 265-74 Exploring the transcription activator-like effectors scaffold versatility to expand the toolbox of designer nucleases. 2014, 15, 13 The prospect of molecular therapy for Angelman syndrome and other monogenic neurologic disorders. 2014, 15, 76	93 23 2 18
1156 1155 1154 1153 1152	Efficient homologous recombination-mediated genome engineering in zebrafish using TALE nucleases. 2014, 141, 3807-18 Generation of myostatin B knockout yellow catfish (Tachysurus fulvidraco) using transcription activator-like effector nucleases. 2014, 11, 265-74 Exploring the transcription activator-like effectors scaffold versatility to expand the toolbox of designer nucleases. 2014, 15, 13 The prospect of molecular therapy for Angelman syndrome and other monogenic neurologic disorders. 2014, 15, 76 CRISPR/Cas-mediated genome editing in the rat via direct injection of one-cell embryos. 2014, 9, 2493-512 DNA repair mechanisms and their biological roles in the malaria parasite Plasmodium falciparum.	93 23 2 18

1148	From cascaded catalytic nucleic acids to enzyme-DNA nanostructures: controlling reactivity, sensing, logic operations, and assembly of complex structures. 2014 , 114, 2881-941	498
1147	CRISPR/Cas9 and TALEN-mediated knock-in approaches in zebrafish. 2014 , 69, 142-50	130
1146	TAL effector-mediated genome visualization (TGV). 2014 , 69, 198-204	8
1145	Magical mystery tour: MLO proteins in plant immunity and beyond. 2014 , 204, 273-81	134
1144	Transcription activator-like effectors: a toolkit for synthetic biology. 2014 , 3, 708-16	34
1143	Engineering synthetic TALE and CRISPR/Cas9 transcription factors for regulating gene expression. 2014 , 69, 188-97	27
1142	BuD, a helix-loop-helix DNA-binding domain for genome modification. 2014 , 70, 2042-52	19
1141	Non-viral vectors for gene-based therapy. 2014 , 15, 541-55	2032
1140	Revisiting the TALE repeat. 2014 , 5, 297-306	28
1139	TALE nucleases as a new tool for genome editing. 2014 , 48, 305-318	2
1138	Identification of putative TAL effector targets of the citrus canker pathogens shows functional convergence underlying disease development and defense response. 2014 , 15, 157	41
1137	A cut above the rest: targeted genome editing technologies in human pluripotent stem cells. 2014 , 289, 4594-9	100
1137	A cut above the rest: targeted genome editing technologies in human pluripotent stem cells. 2014 ,	100
	A cut above the rest: targeted genome editing technologies in human pluripotent stem cells. 2014 , 289, 4594-9 Regulation of endogenous human gene expression by ligand-inducible TALE transcription factors.	
1136	A cut above the rest: targeted genome editing technologies in human pluripotent stem cells. 2014 , 289, 4594-9 Regulation of endogenous human gene expression by ligand-inducible TALE transcription factors. 2014 , 3, 723-30	43
1136	A cut above the rest: targeted genome editing technologies in human pluripotent stem cells. 2014 , 289, 4594-9 Regulation of endogenous human gene expression by ligand-inducible TALE transcription factors. 2014 , 3, 723-30 Role of stem cells in large animal genetic engineering in the TALENs-CRISPR era. 2013 , 26, 65-73	43
1136 1135 1134	A cut above the rest: targeted genome editing technologies in human pluripotent stem cells. 2014 , 289, 4594-9 Regulation of endogenous human gene expression by ligand-inducible TALE transcription factors. 2014 , 3, 723-30 Role of stem cells in large animal genetic engineering in the TALENs-CRISPR era. 2013 , 26, 65-73 FairyTALE: a high-throughput TAL effector synthesis platform. 2014 , 3, 67-73	43 10 33

(2014-2014)

1130	cells. 2014 , 69, 179-87	29
1129	Sandwiched zinc-finger nucleases demonstrating higher homologous recombination rates than conventional zinc-finger nucleases in mammalian cells. 2014 , 24, 813-6	1
1128	The application of transcription activator-like effector nucleases for genome editing in C. elegans. 2014 , 68, 389-96	3
1127	A highly effective TALEN-mediated approach for targeted gene disruption in Xenopus tropicalis and zebrafish. 2014 , 69, 58-66	43
1126	Generation of targeted mouse mutants by embryo microinjection of TALENs. 2014 , 69, 94-101	14
1125	CRISPR/Cas9 and genome editing in Drosophila. 2014 , 41, 7-19	144
1124	TALEN utilization in rice genome modifications. 2014 , 69, 9-16	16
1123	Complete decoding of TAL effectors for DNA recognition. 2014 , 24, 628-31	46
1122	The broad bacterial blight resistance of rice line CBB23 is triggered by a novel transcription activator-like (TAL) effector of Xanthomonas oryzae pv. oryzae. 2014 , 15, 333-41	33
1121	The rice TAL effector-dependent resistance protein XA10 triggers cell death and calcium depletion in the endoplasmic reticulum. 2014 , 26, 497-515	158
112 0	Precision genome editing: a small revolution for glycobiology. 2014 , 24, 663-80	45
1119	Artificial transcription factor-mediated regulation of gene expression. 2014 , 225, 58-67	16
1118	Development and applications of CRISPR-Cas9 for genome engineering. 2014 , 157, 1262-1278	3595
1117	Framework for engineering finite state machines in gene regulatory networks. 2014 , 3, 652-65	21
1116	Genetic diversity of transcriptional activator-like effector genes in Chinese isolates of Xanthomonas oryzae pv. oryzicola. 2014 , 104, 672-82	13
1115	A TAL effector repeat architecture for frameshift binding. 2014 , 5, 3447	35
1114	Lateral organ boundaries 1 is a disease susceptibility gene for citrus bacterial canker disease. 2014 , 111, E521-9	193
1113	The ABCs and 123s of bacterial secretion systems in plant pathogenesis. 2014 , 52, 317-45	50

1112	TALEN-mediated editing of endogenous T-cell receptors facilitates efficient reprogramming of T lymphocytes by lentiviral gene transfer. 2014 , 21, 539-48	107
1111	Principles and applications of TAL effectors for plant physiology and metabolism. 2014 , 19, 99-104	13
1110	Rapid and efficient assembly of transcription activator-like effector genes by USER cloning. 2014 , 41, 339-47	5
1109	TALE activation of endogenous genes in Chlamydomonas reinhardtii. 2014 , 5, 52-60	48
1108	Gene knockout by targeted mutagenesis in a hemimetabolous insect, the two-spotted cricket Gryllus bimaculatus, using TALENs. 2014 , 69, 17-21	13
1107	Transcriptional control of plant defence responses. 2014 , 20, 35-46	152
1106	Expanding the genetic editing tool kit: ZFNs, TALENs, and CRISPR-Cas9. 2014 , 124, 4154-61	252
1105	Programmierbare und hochaufgel\(\text{Ste}\) In-vitro-Detektion von genomischem 5-Methylcytosin durch TALEs. 2014 , 126, 6113-6117	6
1104	Knockout of the adp gene related with colonization in Bacillus nematocida B16 using customized transcription activator-like effectors nucleases. 2015 , 8, 681-92	4
1103	Genomics as the key to unlocking the polyploid potential of wheat. 2015 , 208, 1008-22	84
1102	TALEN-mediated gene editing of the thrombospondin-1 locus in axolotl. 2015 , 2, 37-43	10
1101	Bacteriophages of Lactic Acid Bacteria and Biotechnological Tools. 2015 , 100-119	1
1100	TALEN- and CRISPR/Cas9-Mediated Gene Editing in Human Pluripotent Stem Cells Using Lipid-Based Transfection. 2015 , 34, 5B.3.1-5B.3.25	21
1099	Genome-editing technologies and their potential application in horticultural crop breeding. 2015 , 2, 15019	95
1098	Efficient CRISPR/Cas9-mediated biallelic gene disruption and site-specific knockin after rapid selection of highly active sgRNAs in pigs. 2015 , 5, 13348	52
1097	TALEN-mediated genetic inactivation of the glucocorticoid receptor in cytomegalovirus-specific T cells. 2015 , 126, 2781-9	43
1096	Recombinant expression systems. 2015 , 175-252	
1095	Assembly and validation of versatile transcription activator-like effector libraries. 2014 , 4, 4857	7

(2015-2015)

1094	TAL effectors mediate high-efficiency transposition of the piggyBac transposon in silkworm Bombyx mori L. 2015 , 5, 17172	11
1093	Rewriting the blueprint of life by synthetic genomics and genome engineering. 2015 , 16, 125	18
1092	Heterodimeric TALENs induce targeted heritable mutations in the crustacean Daphnia magna. 2015 , 4, 364-9	26
1091	Generation of Foxo3-targeted Mice by Injection of mRNAs Encoding Transcription Activator-like Effector Nucleases (TALENs) into Zygotes. 2015 , 50, 474-83	2
1090	A knowledge-based molecular screen uncovers a broad-spectrum OsSWEET14 resistance allele to bacterial blight from wild rice. 2015 , 84, 694-703	133
1089	From Gene Targeting to Genome Editing: Transgenic animals applications and beyond. 2015 , 87, 1323-48	32
1088	Artificial TALE as a Convenient Protein Platform for Engineering Broad-Spectrum Resistance to Begomoviruses. 2015 , 7, 4772-82	41
1087	Gene therapy for hemophilia. 2015 , 20, 556-603	40
1086	Engineering protocells: prospects for self-assembly and nanoscale production-lines. <i>Life</i> , 2015 , 5, 1019-53	26
1085	A high excision potential of TALENs for integrated DNA of HIV-based lentiviral vector. 2015 , 10, e0120047	44
1084	A CRISPR-Cas9 System for Genetic Engineering of Filamentous Fungi. 2015 , 10, e0133085	350
1083	Redesigning Recombinase Specificity for Safe Harbor Sites in the Human Genome. 2015 , 10, e0139123	10
1082	An Efficient Approach for the Development of Locus Specific Primers in Bread Wheat (Triticum aestivum L.) and Its Application to Re-Sequencing of Genes Involved in Frost Tolerance. 2015 , 10, e0142746	5
1081	Decision tools for bacterial blight resistance gene deployment in rice-based agricultural ecosystems. <i>Frontiers in Plant Science</i> , 2015 , 6, 305	14
1080	MorTAL Kombat: the story of defense against TAL effectors through loss-of-susceptibility. <i>Frontiers in Plant Science</i> , 2015 , 6, 535	53
1079	TAL effectors and activation of predicted host targets distinguish Asian from African strains of the rice pathogen Xanthomonas oryzae pv. oryzicola while strict conservation suggests universal 6.2 importance of five TAL effectors. <i>Frontiers in Plant Science</i> , 2015 , 6, 536	59
1078	QueTAL: a suite of tools to classify and compare TAL effectors functionally and phylogenetically. Frontiers in Plant Science, 2015, 6, 545	27
1077	TAL effectors and the executor R genes. Frontiers in Plant Science, 2015 , 6, 641 6.2	81

Repeat-containing protein effectors of plant-associated organisms. <i>Frontiers in Plant Science</i> , 20 6, 872)15 , 6.2	27
Single molecule real-time sequencing of genomes reveals a dynamic structure and complex TAL (transcription activator-like) effector gene relationships. 2015 , 1,		47
Genome-wide specificity of DNA binding, gene regulation, and chromatin remodeling by TALE- a CRISPR/Cas9-based transcriptional activators. 2015 , 25, 1158-69	and	99
1073 Myostatin gene mutated mice induced with tale nucleases. 2015 , 26, 169-79		5
1072 An optimized TALEN application for mutagenesis and screening in. 2015 , 5, e1023423		8
1071 Targeted Gene Mutation in Plants. 2015 , 253-272		4
1070 Choosing the Right Tool for the Job: RNAi, TALEN, or CRISPR. 2015 , 58, 575-85		269
1069 Engineered TAL Effector Proteins: Versatile Reagents for Manipulating Plant Genomes. 2015 , 59	5-72	
Measuring and Reducing Off-Target Activities of Programmable Nucleases Including CRISPR-Cas 2015 , 38, 475-81	s9.	144
$_{ m 1067}$ The application of genome editing in studying hearing loss. 2015 , 327, 102-8		41
1066 CRISPR-Cas9-mediated genome editing and guide RNA design. 2015 , 26, 501-10		41
1065 Engineering Sequence-Specific DNA Binding Proteins for Antiviral Gene Editing. 2015 , 63-94		4
1064 Gene Therapy for Chronic Hepatitis B Virus Infection. 2015 , 151-189		
$_{ m 1063}$ Nuclear processes associated with plant immunity and pathogen susceptibility. 2015 , 14, 243-52		14
Advanced technologies for genetically manipulating the silkworm Bombyx mori, a model Lepidopteran insect. 2015 , 282,		21
1061 Research: Biology's big hit. 2015 , 528, S4-5		2
1060 A quick guide to CRISPR sgRNA design tools. 2015 , 6, 266-76		62
1059 Towards a new era in medicine: therapeutic genome editing. 2015 , 16, 286		42

1058	Genome Editing and Its Applications in Model Organisms. 2015 , 13, 336-44	38
1057	DNA-Schalter: Grundlagen und Anwendungen. 2015 , 127, 1112-1144	69
1056	XA23 is an executor R protein and confers broad-spectrum disease resistance in rice. 2015 , 8, 290-302	148
1055	Programmable sensors of 5-hydroxymethylcytosine. 2015 , 137, 2-5	37
1054	Therapeutic genome editing: prospects and challenges. 2015 , 21, 121-31	809
1053	Zebrafish. 2015 , 117-138	1
1052	A TALE of transposition: Tn3-like transposons play a major role in the spread of pathogenicity determinants of Xanthomonas citri and other xanthomonads. 2015 , 6, e02505-14	33
1051	Gene targeting and editing in crop plants: a new era of precision opportunities. 2015 , 35, 1	47
1050	Molecular scissors and their application in genetically modified farm animals. 2015 , 24, 381-96	47
1049	TALEN-mediated genome engineering to generate targeted mice. 2015 , 23, 43-55	19
1048	New insights into mechanisms that regulate DNA methylation patterning. 2015 , 218, 14-20	36
1047	Improving microalgae for biotechnologyFrom genetics to synthetic biology. 2015 , 33, 1194-203	80
1046	Genetic engineering of the Xa10 promoter for broad-spectrum and durable resistance to Xanthomonas oryzae pv. oryzae. 2015 , 13, 993-1001	30
1045	A robust TALENs system for highly efficient mammalian genome editing. 2014 , 4, 3632	16
1044	Using engineered endonucleases to create knockout and knockin zebrafish models. 2015 , 1239, 291-305	21
1043	High-throughput screens in mammalian cells using the CRISPR-Cas9 system. 2015 , 282, 2089-96	42
1042	Optimized tuning of TALEN specificity using non-conventional RVDs. 2015 , 5, 8150	27
1041	Mageschneidertes Genom (Designer-Nukleasen im Einsatz. 2015 , 21, 22-24	1

1040 Lymphoid regeneration from gene-corrected SCID-X1 subject-derived iPSCs. 2015 , 16, 367-72	53
Expression activation and functional analysis of HLA3, a putative inorganic carbon transporter in Chlamydomonas reinhardtii. 2015 , 82, 1-11	46
1038 Improved cell-penetrating zinc-finger nuclease proteins for precision genome engineering. 2015 , 4, e232	41
1037 Genome Engineering for Therapeutic Applications. 2015 , 27-43	2
1036 Direct observation of TALE protein dynamics reveals a two-state search mechanism. 2015 , 6, 7277	56
1035 Current and future uses of enzymes in food processing. 2015 , 103-122	1
1034 Predictable alteration of sequence recognition by RNA editing factors from Arabidopsis. 2015 , 27, 403-16	55
1033 Engineered Minichromosomes in Plants: Structure, Function, and Applications. 2015 , 318, 63-119	4
1032 The Hope for iPSC in Lung Stem Cell Therapy and Disease Modeling. 2015 , 113-143	О
1031 CRISPR-Cas: New Tools for Genetic Manipulations from Bacterial Immunity Systems. 2015 , 69, 209-28	125
	1-)
Generation of a conditional analog-sensitive kinase in human cells using CRISPR/Cas9-mediated genome engineering. 2015 , 129, 19-36	17
1020	
genome engineering. 2015 , 129, 19-36 MitoTALEN: A General Approach to Reduce Mutant mtDNA Loads and Restore Oxidative	17
genome engineering. 2015 , 129, 19-36 MitoTALEN: A General Approach to Reduce Mutant mtDNA Loads and Restore Oxidative Phosphorylation Function in Mitochondrial Diseases. 2015 , 23, 1592-9	17 105
genome engineering. 2015, 129, 19-36 MitoTALEN: A General Approach to Reduce Mutant mtDNA Loads and Restore Oxidative Phosphorylation Function in Mitochondrial Diseases. 2015, 23, 1592-9 A platform for rapid generation of single and multiplexed reporters in human iPSC lines. 2015, 5, 9205	17 105 32
genome engineering. 2015, 129, 19-36 MitoTALEN: A General Approach to Reduce Mutant mtDNA Loads and Restore Oxidative Phosphorylation Function in Mitochondrial Diseases. 2015, 23, 1592-9 A platform for rapid generation of single and multiplexed reporters in human iPSC lines. 2015, 5, 9205 Animal Models in Biomedical Research. 2015, 1497-1534	17 105 32 2
genome engineering. 2015, 129, 19-36 MitoTALEN: A General Approach to Reduce Mutant mtDNA Loads and Restore Oxidative Phosphorylation Function in Mitochondrial Diseases. 2015, 23, 1592-9 A platform for rapid generation of single and multiplexed reporters in human iPSC lines. 2015, 5, 9205 Animal Models in Biomedical Research. 2015, 1497-1534 RiboTALE: A modular, inducible system for accurate gene expression control. 2015, 5, 10658	17 105 32 2

1022	acids production in Saccharomyces cerevisiae. 2015 , 120, 364-71	21
1021	CRISPR-Cas9 Based Genome Engineering: Opportunities in Agri-Food-Nutrition and Healthcare. 2015 , 19, 261-75	8
1020	Methods for studying the zebrafish brain: past, present and future. 2015 , 42, 1746-63	39
1019	Transcription Activator-Like Effector (TALE) Nucleases and Repressor TALEs for Antiviral Gene Therapy. 2015 , 1, 1-8	8
1018	Synthetic epigenetics-towards intelligent control of epigenetic states and cell identity. 2015 , 7, 18	47
1017	Ligation-independent cloning (LIC) assembly of TALEN genes. 2015, 1239, 161-9	9
1016	Assembly and characterization of megaTALs for hyperspecific genome engineering applications. 2015 , 1239, 171-96	5
1015	Editing CCR5: a novel approach to HIV gene therapy. 2015 , 848, 117-30	20
1014	Recent advances in use of gene therapy to treat hepatitis B virus infection. 2015 , 848, 31-49	3
1013	Improved specificity of TALE-based genome editing using an expanded RVD repertoire. 2015 , 12, 465-71	66
1012	Utilization of TALEN and CRISPR/Cas9 technologies for gene targeting and modification. 2015 , 240, 1065-70	17
1011	Genome Editing Using Zinc-Finger Nucleases (ZFNs) and Transcription Activator-Like Effector Nucleases (TALENs). 2015 , 3-24	2
1010	Engineered biosynthesis of natural products in heterologous hosts. 2015 , 44, 5265-90	119
1009	Spontaneous dominant mutations in chlamydomonas highlight ongoing evolution by gene diversification. 2015 , 27, 984-1001	25
1008	Liver-targeted gene therapy: Approaches and challenges. 2015 , 21, 718-37	21
1007	Gene targeting by the TAL effector PthXo2 reveals cryptic resistance gene for bacterial blight of rice. 2015 , 82, 632-43	290
1006	Shortening trinucleotide repeats using highly specific endonucleases: a possible approach to gene therapy?. 2015 , 31, 177-86	20
1005	Enabling functional genomics with genome engineering. 2015 , 25, 1442-55	67

1004	PTEN regulates RPA1 and protects DNA replication forks. 2015 , 25, 1189-204	54
1003	From Genomics to Gene Therapy: Induced Pluripotent Stem Cells Meet Genome Editing. 2015 , 49, 47-70	89
1002	Activation by zinc of the human gastrin gene promoter in colon cancer cells in vitro and in vivo. 2015 , 7, 1390-8	13
1001	Strategies for precision modulation of gene expression by epigenome editing: an overview. 2015 , 8, 34	40
1000	Combining CRISPR/Cas9 and rAAV Templates for Efficient Gene Editing. 2015 , 25, 287-96	19
999	Efficient delivery of nuclease proteins for genome editing in human stem cells and primary cells. 2015 , 10, 1842-59	88
998	Continuous directed evolution of DNA-binding proteins to improve TALEN specificity. 2015 , 12, 939-42	74
997	Modulation of host cell biology by plant pathogenic microbes. 2015 , 31, 201-29	31
996	Delivery and therapeutic applications of gene editing technologies ZFNs, TALENs, and CRISPR/Cas9. 2015 , 494, 180-94	78
995	Genome-editing tools for stem cell biology. 2015 , 6, e1831	14
994	Stella controls chromocenter formation through regulation of Daxx expression in 2-cell embryos. 2015 , 466, 60-5	15
993	Control of Gene Expression in Leptospira spp. by Transcription Activator-Like Effectors Demonstrates a Potential Role for LigA and LigB in Leptospira interrogans Virulence. 2015 , 81, 7888-92	23
992	Proven and novel strategies for efficient editing of the human genome. 2015 , 24, 105-12	17
991	Allele mining and enhanced genetic recombination for rice breeding. 2015 , 8, 34	47
990	Patient-adapted, specific activation of HIV-1 by customized TAL effectors (TALEs), a proof of principle study. 2015 , 486, 248-54	5
989	Rabbit models for the study of human atherosclerosis: from pathophysiological mechanisms to translational medicine. 2015 , 146, 104-19	194
989 988		194 340

(2016-2015)

986	Efficient production of a gene mutant cell line through integrating TALENs and high-throughput cell cloning. 2015 , 20, 46-50	3
985	Designed transcription activator-like effector proteins efficiently induced the expression of latent HIV-1 in latently infected cells. 2015 , 31, 98-106	13
984	Plant genome editing by novel tools: TALEN and other sequence specific nucleases. 2015 , 32, 47-53	67
983	A multicolor panel of TALE-KRAB based transcriptional repressor vectors enabling knockdown of multiple gene targets. 2014 , 4, 7338	14
982	Drug-inducible synergistic gene silencing with multiple small hairpin RNA molecules for gene function study in animal model. 2015 , 24, 309-17	
981	Genome editing by targeted chromosomal mutagenesis. 2015 , 1239, 1-13	7
980	Gene therapy using stem cells. 2014 , 5,	13
979	Efficient design and assembly of custom TALENs using the Golden Gate platform. 2015 , 1239, 133-59	28
978	Genome editing in human pluripotent stem cells using site-specific nucleases. 2015 , 1239, 267-80	15
977	DNA damage and gene therapy of xeroderma pigmentosum, a human DNA repair-deficient disease. 2015 , 776, 2-8	23
976	Genome engineering using CRISPR-Cas9 system. 2015 , 1239, 197-217	156
975	BurrH: a new modular DNA binding protein for genome engineering. 2014 , 4, 3831	32
974	CRISPR/Cas9 Systems: The Next Generation Gene Targeted Editing Tool. 2015, 85, 377-387	О
973	PCR amplification of repetitive DNA: a limitation to genome editing technologies and many other applications. 2014 , 4, 5052	55
972	Rapid and accurate synthesis of TALE genes from synthetic oligonucleotides. 2016 , 60, 299-305	4
971	Chromatin Live Imaging with Genome Editing Techniques: Switching from Scissors to a Lamp. 2016 , 81, 359-362	8
970	Waking up dormant tumor suppressor genes with zinc fingers, TALEs and the CRISPR/dCas9 system. 2016 , 7, 60535-60554	49
969	Gene Insertion and Deletion in Mosquitoes. 2016 , 139-168	3

968	Potential Role of the Last Half Repeat in TAL Effectors Revealed by a Molecular Simulation Study. 2016 , 2016, 8036450		1
967	The Rise of CRISPR/Cas for Genome Editing in Stem Cells. 2016 , 2016, 8140168		18
966	Strategies to Correct Nonsense Mutations. 2016 , 107-165		1
965	Application of Genomic, Transcriptomic, and Metabolomic Technologies in Arachis Species. 2016 , 209-240		2
964	Gene Drive Strategies for Population Replacement. 2016 , 169-200		33
963	Genome Engineering with TALE and CRISPR Systems in Neuroscience. 2016, 7, 47		21
962	Defects of the Glycinergic Synapse in Zebrafish. 2016 , 9, 50		6
961	Genome Editing in C. elegans and Other Nematode Species. <i>International Journal of Molecular Sciences</i> , 2016 , 17, 295	3	12
960	The Polycomb Group Protein Pcgf1 Is Dispensable in Zebrafish but Involved in Early Growth and Aging. 2016 , 11, e0158700		11
959	Identification of Position-Specific Correlations between DNA-Binding Domains and Their Binding Sites. Application to the MerR Family of Transcription Factors. 2016 , 11, e0162681		5
958	Recent Advances in Genome Editing Using CRISPR/Cas9. Frontiers in Plant Science, 2016 , 7, 703 6.	2	75
957	TALE-Like Effectors Are an Ancestral Feature of the Ralstonia solanacearum Species Complex and Converge in DNA Targeting Specificity. <i>Frontiers in Plant Science</i> , 2016 , 7, 1225	2	19
956	Suppression of -Mediated Disease Resistance in Rice by a Truncated, Non-DNA-Binding TAL Effector of. <i>Frontiers in Plant Science</i> , 2016 , 7, 1516	2	49
955	In vitro repair of a defective EGFP transcript and translation into a functional protein. 2016 , 14, 6729-37		6
954	Ectopic activation of the rice NLR heteropair RGA4/RGA5 confers resistance to bacterial blight and bacterial leaf streak diseases. 2016 , 88, 43-55		16
953	Gene Therapy for Haemoglobinopathies. 2016 , 1-8		
952	A comprehensive overview of computational resources to aid in precision genome editing with engineered nucleases. 2017 , 18, 698-711		11
951	Comparison of gene activation by two TAL effectors from Xanthomonas axonopodis pv. manihotis reveals candidate host susceptibility genes in cassava. 2016 , 17, 875-89		21

(2016-2016)

950	polymorphisms in effector-binding elements of citrus canker susceptibility genes. 2016 , 17, 1223-36	19
949	The Restorer-of-fertility-like 2 pentatricopeptide repeat protein and RNase P are required for the processing of mitochondrial orf291 RNA in Arabidopsis. 2016 , 86, 504-13	22
948	Exosomal cellular prion protein drives fibrillization of amyloid beta and counteracts amyloid beta-mediated neurotoxicity. 2016 , 137, 88-100	89
947	Redefining the structural motifs that determine RNA binding and RNA editing by pentatricopeptide repeat proteins in land plants. 2016 , 85, 532-47	176
946	The potential of gene therapy approaches for the treatment of hemoglobinopathies: achievements and challenges. 2016 , 7, 302-315	26
945	Gene Editing: Powerful New Tools for Nephrology Research and Therapy. 2016 , 27, 2940-2947	18
944	Distinct Responses of Stem Cells to Telomere Uncapping-A Potential Strategy to Improve the Safety of Cell Therapy. 2016 , 34, 2471-2484	14
943	Transcription activator-like effector nucleases (TALENs): An efficient tool for plant genome editing. 2016 , 16, 330-337	6
942	To CRISPR and beyond: the evolution of genome editing in stem cells. 2016, 11, 801-816	11
941	Strategies for the Gene Modification of Megakaryopoiesis and Platelets. 2016 , 421-460	
940	Non-RVD mutations that enhance the dynamics of the TAL repeat array along the superhelical axis improve TALEN genome editing efficacy. 2016 , 6, 37887	7
939	Temporal Transcription Profiling of Sweet Orange in Response to PthA4-Mediated Xanthomonas citri subsp. citri Infection. 2016 , 106, 442-51	8
938	Targeted genome engineering in. 2016 , 6, 60	11
937	Genome editing for targeted improvement of plants. 2016 , 10, 327-343	23
936	Broken TALEs: Transcription Activator-like Effectors Populate Partly Folded States. 2016 , 111, 2395-2403	7
935	AnnoTALE: bioinformatics tools for identification, annotation, and nomenclature of TALEs from Xanthomonas genomic sequences. 2016 , 6, 21077	55
934	Rapid Screening for CRISPR-Directed Editing of the Drosophila Genome Using white Coconversion. 2016 , 6, 3197-3206	27
933	Testing the causality between CYP9M10 and pyrethroid resistance using the TALEN and CRISPR/Cas9 technologies. 2016 , 6, 24652	55

932	Spatial organization of heterologous metabolic system in vivo based on TALE. 2016 , 6, 26065	11
931	An engineered tale-transcription factor rescues transcription of factor VII impaired by promoter mutations and enhances its endogenous expression in hepatocytes. 2016 , 6, 28304	12
930	Targeted gene exchange in plant cells mediated by a zinc finger nuclease double cut. 2016 , 14, 1151-60	22
929	Proteomics in the genome engineering era. 2016 , 16, 177-87	6
928	The democratization of gene editing: Insights from site-specific cleavage and double-strand break repair. 2016 , 44, 6-16	133
927	Die another day: Molecular mechanisms of effector-triggered immunity elicited by type III secreted effector proteins. 2016 , 56, 124-133	21
926	Emerging therapies for mitochondrial disorders. 2016 , 139, 1633-48	42
925	Genome editing in pluripotent stem cells: research and therapeutic applications. 2016, 473, 665-74	15
924	Multiplexed, targeted gene editing in Nicotiana benthamiana for glyco-engineering and monoclonal antibody production. 2016 , 14, 533-42	72
923	Minireview: Genome Editing of Human Pluripotent Stem Cells for Modeling Metabolic Disease. 2016 , 30, 575-86	5
922	Fine-Tuning Next-Generation Genome Editing Tools. 2016 , 34, 562-574	43
921	Imaging Specific Genomic DNA in Living Cells. 2016 , 45, 1-23	52
920	Engineering Delivery Vehicles for Genome Editing. 2016 , 7, 637-62	75
919	Editorial Prerogative and the Plant Genome. 2016 , 43, 229-32	2
918	Screening Strategies for TALEN-Mediated Gene Disruption. 2016 , 1419, 231-52	3
917	CRISPR/Cas9 Platforms for Genome Editing in Plants: Developments and Applications. 2016 , 9, 961-74	271
916	Perinatal Gene Therapy. 2016 , 361-402	
915	Approaches to Inactivate Genes in Zebrafish. 2016 , 916, 61-86	4

(2016-2016)

914	TALEN gene editing takes aim on HIV. 2016 , 135, 1059-70	34
913	Customizing the genome as therapy for the memoglobinopathies. 2016 , 127, 2536-45	38
912	The emerging role of viral vectors as vehicles for DMD gene editing. 2016 , 8, 59	12
911	Coevolution of Organelle RNA Editing and Nuclear Specificity Factors in Early Land Plants. 2016 , 37-93	18
910	The zebrafish genome editing toolkit. 2016 , 135, 149-70	19
909	Genetic Engineering of Plants Using Zn Fingers, TALENs, and CRISPRs. 2016 , 187-201	2
908	Genome-Editing Technologies: Principles and Applications. 2016 , 8,	120
907	A Rapid TALEN Assembly Protocol. 2016 , 1480, 269-81	1
906	An Effective and Inducible System of TAL Effector-Mediated Transcriptional Repression in Arabidopsis. 2016 , 9, 1546-1549	5
905	Methods for Optimizing CRISPR-Cas9 Genome Editing Specificity. 2016 , 63, 355-70	190
904	Genome editing comes of age. 2016 , 11, 1573-8	60
903	Gene Editing of Human Hematopoietic Stem and Progenitor Cells: Promise and Potential Hurdles. 2016 , 27, 729-740	33
902	Prospects for application of breakthrough technologies in breeding: The CRISPR/Cas9 system for plant genome editing. 2016 , 52, 676-687	16
901	Genome Editing in Stem Cells. 2016 , 287-309	
900	Genome- and Cell-Based Strategies in Therapy of Muscular Dystrophies. 2016 , 81, 678-90	3
899	Cytoplasmic injection of murine zygotes with Sleeping Beauty transposon plasmids and minicircles results in the efficient generation of germline transgenic mice. 2016 , 11, 178-84	12
898	Genome editing in nonhuman primates: approach to generating human disease models. 2016 , 280, 246-51	35
897	Inactivation of GDP-fucose transporter gene (Slc35c1) in CHO cells by ZFNs, TALENs and CRISPR-Cas9 for production of fucose-free antibodies. 2016 , 11, 399-414	43

896	Accelerated genome engineering through multiplexing. 2016 , 8, 5-21	15
895	TALEN-Mediated Mutagenesis and Genome Editing. 2016 , 1451, 17-30	17
894	At the Conflux of Human Genome Engineering and Induced Pluripotency. 2016 , 45-64	1
893	Current Status of Genome Editing in Cardiovascular Medicine. 2016 , 107-126	1
892	Genome Editing with Targetable Nucleases. 2016 , 1-29	
891	The potential of using biotechnology to improve cassava: a review. 2016 , 52, 461-478	40
890	Behind the lines-actions of bacterial type III effector proteins in plant cells. 2016 , 40, 894-937	149
889	Small RNAs Add Zing to the Zig-Zag-Zig Model of Plant Defenses. 2016 , 29, 165-9	60
888	Perspectives on the Transition From Bacterial Phytopathogen Genomics Studies to Applications Enhancing Disease Management: From Promise to Practice. 2016 , 106, 1071-1082	9
887	Quantification of dopaminergic neuron differentiation and neurotoxicity via a genetic reporter. 2016 , 6, 25181	11
886	Novel Technologies for Optimal Strain Breeding. 2017 , 159, 227-254	2
885	Systems Metabolic Engineering of Escherichia coli. 2016 , 7,	23
884	CRISPR-Cas9 technology and its application in haematological disorders. 2016 , 175, 208-225	15
883	Highly efficient generation of GGTA1 knockout pigs using a combination of TALEN mRNA and magnetic beads with somatic cell nuclear transfer. 2016 , 15, 1540-1549	9
882	Single-molecule biophysics: TALEs spin along, but not around. 2016 , 12, 766-8	2
881	Engineering Barriers to Infection by Undermining Pathogen Effector Function or by Gaining Effector Recognition. 2016 , 21-50	1
880	Methods of Genome Engineering: a New Era of Molecular Biology. 2016 , 81, 662-77	5
879	Genome editing revolutionize the creation of genetically modified pigs for modeling human diseases. 2016 , 135, 1093-105	34

878	Isolation of Human Genomic DNA Sequences with Expanded Nucleobase Selectivity. 2016, 138, 9910-8	18
877	The genome editing revolution: A CRISPR-Cas TALE off-target story. 2016 , 38 Suppl 1, S4-S13	45
876	The genome editing revolution: A CRISPR-Cas TALE off-target story. 2016 , 1, 7-16	
875	Libraries of Synthetic TALE-Activated Promoters: Methods and Applications. 2016 , 576, 361-78	6
874	Genome editing: the road of CRISPR/Cas9 from bench to clinic. 2016 , 48, e265	55
873	Gene Therapy. 2016 , 1-19	
872	TALENs-directed knockout of the full-length transcription factor Nrf1Ethat represses malignant behaviour of human hepatocellular carcinoma (HepG2) cells. 2016 , 6, 23775	23
871	Visualization of specific repetitive genomic sequences with fluorescent TALEs in Arabidopsis thaliana. 2016 , 67, 6101-6110	29
870	Cisgenesis and intragenesis in microalgae: promising advancements towards sustainable metabolites production. 2016 , 100, 10225-10235	6
869	Computational Approaches to Accelerating Novel Medicine and Better Patient Care from Bedside to Benchtop. 2016 , 102, 147-79	1
868	Interrogating Key Positions of Size-Reduced TALE Repeats Reveals a Programmable Sensor of 5-Carboxylcytosine. 2016 , 11, 3294-3299	19
867	Endonuclease mediated genome editing in drug discovery and development: promises and challenges. 2016 , 21-22, 17-25	1
866	Zebrafish Genome Engineering Using the CRISPR-Cas9 System. 2016 , 32, 815-827	93
865	Increasing the Efficiency of CRISPR/Cas9-mediated Precise Genome Editing of HSV-1 Virus in Human Cells. 2016 , 6, 34531	51
864	Simultaneous generation of multi-gene knockouts in human cells. 2016 , 590, 4343-4353	10
863	Effector-assisted breeding for bacterial wilt resistance in horticultural crops. 2016 , 57, 415-423	8
862	Genome engineering: Drosophila melanogaster and beyond. 2016 , 5, 233-67	27
861	Genome engineering tools for building cellular models of disease. 2016 , 283, 3222-31	21

860	A resistance locus in the American heirloom rice variety Carolina Gold Select is triggered by TAL effectors with diverse predicted targets and is effective against African strains of Xanthomonas oryzae pv. oryzicola. 2016 , 87, 472-83	47
859	Long read and single molecule DNA sequencing simplifies genome assembly and TAL effector gene analysis of Xanthomonas translucens. 2016 , 17, 21	42
858	NgAgo: an exciting new tool for genome editing. 2016 , 61, 1074-1075	1
857	Plant-Pathogen Effectors: Cellular Probes Interfering with Plant Defenses in Spatial and Temporal Manners. 2016 , 54, 419-41	2 90
856	Treating hemoglobinopathies using gene-correction approaches: promises and challenges. 2016 , 135, 993-1010	12
855	Insert, remove or replace: A highly advanced genome editing system using CRISPR/Cas9. 2016 , 1863, 2333-44	66
854	Use of genome-editing tools to treat sickle cell disease. 2016 , 135, 1011-28	18
853	Using Ecology, Physiology, and Genomics to Understand Host Specificity in Xanthomonas. 2016 , 54, 163-87	96
852	Programmable Site-Specific Nucleases for Targeted Genome Engineering in Higher Eukaryotes. 2016 , 231, 2380-92	21
851	Off-target effects of engineered nucleases. 2016 , 283, 3239-48	51
850	Salient Features of Endonuclease Platforms for Therapeutic Genome Editing. 2016, 24, 422-9	9
849	Challenges of glycosylation analysis and control: an integrated approach to producing optimal and consistent therapeutic drugs. 2016 , 21, 740-65	128
848	Editing the epigenome: technologies for programmable transcription and epigenetic modulation. 2016 , 13, 127-37	272
847	Genome-editing Technologies for Gene and Cell Therapy. 2016 , 24, 430-46	413
846	The Heroes of CRISPR. 2016 , 164, 18-28	266
845	Targeted mutagenesis of an odorant receptor co-receptor using TALEN in Ostrinia furnacalis. 2016 , 70, 53-9	25
844	Ccdc11 is a novel centriolar satellite protein essential for ciliogenesis and establishment of left-right asymmetry. 2016 , 27, 48-63	29

(2016-2016)

842	Applications of CRISPR-Cas systems in neuroscience. 2016 , 17, 36-44	165
841	Revolutionizing plant biology: multiple ways of genome engineering by CRISPR/Cas. 2016 , 12, 8	103
840	The Use and Development of TAL Effector Nucleases. 2016 , 29-50	1
839	Sequence-Specific Nucleases for Genetic Improvement of Potato. 2016 , 93, 303-320	6
838	Cellular Engineering and Disease Modeling with Gene-Editing Nucleases. 2016 , 223-258	1
837	Genome Editing by Aptamer-Guided Gene Targeting (AGT). 2016 , 111-124	
836	Genome Editing for Neuromuscular Diseases. 2016 , 51-79	1
835	Use of designer nucleases for targeted gene and genome editing in plants. 2016 , 14, 483-95	159
834	CRISPR/Cas9: an advanced tool for editing plant genomes. 2016 , 25, 561-73	61
833	TALEN-Mediated Homologous Recombination Produces Site-Directed DNA Base Change and Herbicide-Resistant Rice. 2016 , 43, 297-305	56
832	Potential pitfalls of CRISPR/Cas9-mediated genome editing. 2016 , 283, 1218-31	151
831	FusX: A Rapid One-Step Transcription Activator-Like Effector Assembly System for Genome Science. 2016 , 27, 451-63	33
830	Genetically engineered livestock for agriculture: a generation after the first transgenic animal research conference. 2016 , 25, 321-7	14
829	Gene Editing 20 Years Later. 2016 , 1-14	1
828	New Transformation Technologies for Trees. 2016 , 31-66	2
827	Chemical Biology Approaches to Genome Editing: Understanding, Controlling, and Delivering Programmable Nucleases. 2016 , 23, 57-73	35
826	Strategies to Determine Off-Target Effects of Engineered Nucleases. 2016 , 187-222	
825	Binding of transcription factor GabR to DNA requires recognition of DNA shape at a location distinct from its cognate binding site. 2016 , 44, 1411-20	27

824	Locked and proteolysis-based transcription activator-like effector (TALE) regulation. 2016 , 44, 1471-81	14
823	Genome Editing in Human Pluripotent Stem Cells: Approaches, Pitfalls, and Solutions. 2016 , 18, 53-65	81
822	Genome-Editing Technologies and Their Use in Tomato. 2016 , 239-250	1
821	Programming Biology: Expanding the Toolset for the Engineering of Transcription. 2016 , 1-64	2
820	Xenobiotic Life. 2016 , 337-357	
819	Of guards, decoys, baits and traps: pathogen perception in plants by type III effector sensors. 2016 , 29, 49-55	89
818	TALENs-mediated gene disruption of myostatin produces a larger phenotype of medaka with an apparently compromised immune system. 2016 , 48, 212-20	26
817	Efficient targeted mutagenesis in soybean by TALENs and CRISPR/Cas9. 2016 , 217, 90-7	157
816	Origins of Programmable Nucleases for Genome Engineering. 2016 , 428, 963-89	173
815	Genome Editing in Mice Using TALE Nucleases. 2016 , 1338, 229-43	2
814	Methods for TALEN-Mediated Genomic Manipulations in Drosophila. 2016 , 1338, 179-90	1
813	Design, Assembly, and Characterization of TALE-Based Transcriptional Activators and Repressors. 2016 , 1338, 71-88	6
812	Xanthomonas and the TAL Effectors: Nature's Molecular Biologist. 2016 , 1338, 1-8	3
811	Gene editing toward the use of autologous therapies in recessive dystrophic epidermolysis bullosa. 2016 , 168, 50-58	13
810	TALEN-mediated targeted mutagenesis produces a large variety of heritable mutations in rice. 2016 , 14, 186-94	44
809	Plant-pathogen interactions: toward development of next-generation disease-resistant plants. 2017 , 37, 229-237	45
808	CRISPR-Cas9 technology: applications and human disease modelling. 2017 , 16, 4-12	25
807	Generation of obese rat model by transcription activator-like effector nucleases targeting the leptin receptor gene. 2017 , 60, 152-157	10

806	Targeted genome regulation via synthetic programmable transcriptional regulators. 2017 , 37, 429-440	18
805	A transcription activator-like effector from Xanthomonas oryzae pv. oryzicola elicits dose-dependent resistance in rice. 2017 , 18, 55-66	13
804	Homologues of CsLOB1 in citrus function as disease susceptibility genes in citrus canker. 2017 , 18, 798-810	24
803	TALE-induced bHLH transcription factors that activate a pectate lyase contribute to water soaking in bacterial spot of tomato. 2017 , 114, E897-E903	60
802	Visualization of aging-associated chromatin alterations with an engineered TALE system. 2017 , 27, 483-504	36
801	AvrXa27 binding influences unwinding of the double-stranded DNA in the UPT box. 2017 , 484, 390-395	2
800	Rapid and Efficient Genome Editing in Staphylococcus aureus by Using an Engineered CRISPR/Cas9 System. 2017 , 139, 3790-3795	59
799	Genome Editing for the Study of Cardiovascular Diseases. 2017 , 19, 22	17
798	A fast and reliable strategy to generate TALEN-mediated gene knockouts in the diatom Phaeodactylum tricornutum. 2017 , 23, 186-195	47
797	Live visualization of genomic loci with BiFC-TALE. 2017 , 7, 40192	8
797 796	Live visualization of genomic loci with BiFC-TALE. 2017 , 7, 40192 T(ell)TALE signs of aging. 2017 , 27, 453-454	8
		37
796	T(ell)TALE signs of aging. 2017 , 27, 453-454 A Comprehensive TALEN-Based Knockout Library for Generating Human-Induced Pluripotent Stem	
79 ⁶	T(ell)TALE signs of aging. 2017, 27, 453-454 A Comprehensive TALEN-Based Knockout Library for Generating Human-Induced Pluripotent Stem Cell-Based Models for Cardiovascular Diseases. 2017, 120, 1561-1571	37
796 795 794	T(ell)TALE signs of aging. 2017, 27, 453-454 A Comprehensive TALEN-Based Knockout Library for Generating Human-Induced Pluripotent Stem Cell-Based Models for Cardiovascular Diseases. 2017, 120, 1561-1571 Creation of gene-specific rice mutants by AvrXa23-based TALENs. 2017, 16, 424-434 Characterization of a disease susceptibility locus for exploring an efficient way to improve rice	37
796 795 794 793	T(ell)TALE signs of aging. 2017, 27, 453-454 A Comprehensive TALEN-Based Knockout Library for Generating Human-Induced Pluripotent Stem Cell-Based Models for Cardiovascular Diseases. 2017, 120, 1561-1571 Creation of gene-specific rice mutants by AvrXa23-based TALENs. 2017, 16, 424-434 Characterization of a disease susceptibility locus for exploring an efficient way to improve rice resistance against bacterial blight. 2017, 60, 298-306 Genome editing: a robust technology for human stem cells. Cellular and Molecular Life Sciences,	37 3 13
796 795 794 793 792	T(ell)TALE signs of aging. 2017, 27, 453-454 A Comprehensive TALEN-Based Knockout Library for Generating Human-Induced Pluripotent Stem Cell-Based Models for Cardiovascular Diseases. 2017, 120, 1561-1571 Creation of gene-specific rice mutants by AvrXa23-based TALENs. 2017, 16, 424-434 Characterization of a disease susceptibility locus for exploring an efficient way to improve rice resistance against bacterial blight. 2017, 60, 298-306 Genome editing: a robust technology for human stem cells. Cellular and Molecular Life Sciences, 2017, 74, 3335-3346 Chromodomain protein CDYL is required for transmission/restoration of repressive histone marks.	37 3 13 9

788	Advancing chimeric antigen receptor T cell therapy with CRISPR/Cas9. 2017 , 8, 634-643	64
787	Harnessing Effector-Triggered Immunity for Durable Disease Resistance. 2017 , 107, 912-919	16
786	Genome-Edited T Cell Therapies. 2017 , 3, 124-136	9
785	A Single-Molecule View of Genome Editing Proteins: Biophysical Mechanisms for TALEs and CRISPR/Cas9. 2017 , 8, 577-597	9
7 ⁸ 4	Plant genome editing with TALEN and CRISPR. 2017 , 7, 21	141
783	The N6-Position of Adenine Is a Blind Spot for TAL-Effectors That Enables Effective Binding of Methylated and Fluorophore-Labeled DNA. 2017 , 12, 1719-1725	10
782	Transfer and engineering of immune receptors to improve recognition capacities in crops. 2017 , 38, 42-49	42
781	The effect of increasing numbers of repeats on TAL effector DNA binding specificity. 2017 , 45, 6960-6970	24
780	CRISPR Editing in Biological and Biomedical Investigation. 2017 , 118, 4152-4162	5
779	Developmental history and application of CRISPR in human disease. 2017 , 19, e2963	6
778	Multiplexed Transcriptional Activation or Repression in Plants Using CRISPR-dCas9-Based Systems. 2017 , 1629, 167-184	36
777	Gene editing in birds takes flight. 2017 , 28, 315-323	32
776	Application of CRISPR-Cas9 in eye disease. 2017 , 161, 116-123	7
775	CRISPR/Cas9-Based Genome Editing in Plants. 2017 , 149, 133-150	27
774	Precise genome-wide base editing by the CRISPR Nickase system in yeast. 2017 , 7, 2095	38
773	Genome editing in Drosophila melanogaster: from basic genome engineering to the multipurpose CRISPR-Cas9 system. 2017 , 60, 476-489	9
77 ²	CRISPR/Cas9-Based Genome Editing for Disease Modeling and Therapy: Challenges and Opportunities for Nonviral Delivery. 2017 , 117, 9874-9906	287
771	The Sequences of 1504 Mutants in the Model Rice Variety Kitaake Facilitate Rapid Functional Genomic Studies. 2017 , 29, 1218-1231	80

(2017-2017)

770	Production of Medium Chain Fatty Acids by Yarrowia lipolytica: Combining Molecular Design and TALEN to Engineer the Fatty Acid Synthase. 2017 , 6, 1870-1879	57
769	Therapeutic editing of hepatocyte genome in vivo. 2017 , 67, 818-828	16
768	Genome-editing technologies and patent landscape overview. 2017 , 6, 115-134	3
767	Recent advances in functional perturbation and genome editing techniques in studying sea urchin development. 2017 , 16, 309-318	8
766	Advances in Genetic Transformation of Litchi. 2017 , 421-436	1
765	NLRP2 is a suppressor of NF- B signaling and HLA-C expression in human trophoblasts 2017 , 96, 831-842	31
764	Disease modeling in genetic kidney diseases: zebrafish. 2017 , 369, 127-141	17
763	Precision Genome Editing for Systems Biology 🖪 Temporal Perspective. 2017 , 367-392	
762	The Lychee Biotechnology. 2017 ,	3
761	Induction of Xa10-like Genes in Rice Cultivar Nipponbare Confers Disease Resistance to Rice Bacterial Blight. 2017 , 30, 466-477	18
760	Genome engineering for breaking barriers in lignocellulosic bioethanol production. 2017 , 74, 1080-1107	26
759	From classical mutagenesis to nuclease-based breeding - directing natural DNA repair for a natural end-product. 2017 , 90, 819-833	82
758	Synthetic Biology-The Synthesis of Biology. 2017 , 56, 6396-6419	103
757	TAL Effectors Drive Transcription Bidirectionally in Plants. 2017 , 10, 285-296	21
756	Synthetische Biologie Idie Synthese der Biologie. 2017 , 129, 6494-6519	7
755	Site-Directed Mutagenesis in Barley by Expression of TALE Nuclease in Embryogenic Pollen. 2017 , 113-128	2
754	Doubled Haploidy as a Tool for Chimaera Dissolution of TALEN-Induced Mutations in Barley. 2017 , 129-141	2
753	Engineering Therapeutic T Cells: From Synthetic Biology to Clinical Trials. 2017 , 12, 305-330	42

752	Genome engineering: a new approach to gene therapy for neuromuscular disorders. 2017 , 13, 647-661	45
751	A fine LINE-1 in mouse embryonic chromatin regulation. 2017 , 49, 1418-1419	1
750	HCFC2 is needed for IRF1- and IRF2-dependent transcription and for survival during viral infections. 2017 , 214, 3263-3277	19
749	Transcription control engineering and applications in synthetic biology. 2017 , 2, 176-191	53
748	Gene Editing and Human Pluripotent Stem Cells: Tools for Advancing Diabetes Disease Modeling and Beta-Cell Development. 2017 , 17, 116	9
747	Deciphering TAL effectors for 5-methylcytosine and 5-hydroxymethylcytosine recognition. 2017 , 8, 901	19
746	CRISPR/Cas9-Enabled Multiplex Genome Editing and Its Application. 2017, 149, 111-132	47
745	Targeted Mutagenesis in Hexaploid Bread Wheat Using the TALEN and CRISPR/Cas Systems. 2017 , 1679, 169-185	4
744	Genome editing in potato plants by agrobacterium-mediated transient expression of transcription activator-like effector nucleases. 2017 , 11, 249-258	24
743	The histone lysine methyltransferase Ezh2 is required for maintenance of the intestine integrity and for caudal fin regeneration in zebrafish. 2017 , 1860, 1079-1093	21
742	Recent Advances in Preclinical Developments Using Adenovirus Hybrid Vectors. 2017, 28, 833-841	5
741	Gene Editing With TALEN and CRISPR/Cas in Rice. 2017, 149, 81-98	21
740	Selection-dependent and Independent Generation of CRISPR/Cas9-mediated Gene Knockouts in Mammalian Cells. 2017 ,	2
739	A Transcription Activator-Like Effector Tal7 of Xanthomonas oryzae pv. oryzicola Activates Rice Gene Os09g29100 to Suppress Rice Immunity. 2017 , 7, 5089	42
738	Targeted genome editing in Caenorhabditis elegans using CRISPR/Cas9. 2017, 6, e287	10
737	Application of genome editing technology in crop improvement. 2017,	2
736	Basics of genome editing technology and its application in livestock species. 2017 , 52 Suppl 3, 4-13	48
735	Characterization of noncoding regulatory DNA in the human genome. 2017 , 35, 732-746	50

(2017-2017)

734	Genome Editing P rinciples and Applications for Functional Genomics Research and Crop Improvement. 2017 , 36, 291-309	73
733	Design of Sequence-Specific Polymers by Genetic Engineering. 2017 , 91-115	2
732	A multiplexable TALE-based binary expression system for in vivo cellular interaction studies. 2017 , 8, 1663	5
731	Techniques and strategies employing engineered transcription factors. 2017 , 4, 152-162	O
730	What history tells us XLIV: The construction of the zinc finger nucleases. 2017 , 42, 527-530	1
729	Genome Editing for the #Hemoglobinopathies. 2017 , 1013, 203-217	5
728	Combining Engineered Nucleases with Adeno-associated Viral Vectors for Therapeutic Gene Editing. 2017 , 1016, 29-42	10
727	Engineering DNA Backbone Interactions Results in TALE Scaffolds with Enhanced 5-Methylcytosine Selectivity. 2017 , 7, 15067	7
726	Fine and Predictable Tuning of TALEN Gene Editing Targeting for Improved T Cell Adoptive Immunotherapy. 2017 , 9, 312-321	29
725	Evolution of Transcription Activator-Like Effectors in Xanthomonas oryzae. 2017 , 9, 1599-1615	30
724	Use of transcription activator-like effector for efficient gene modification and transcription in the filamentous fungus Trichoderma reesei. 2017 , 44, 1367-1373	8
723	Engineering synthetic optogenetic networks for biomedical applications. 2017 , 5, 111-123	
	Engineering synthetic optogenetic networks for biomedical applications. 2017, 5, 111-125	1
722	Next-generation mammalian genetics toward organism-level systems biology. 2017 , 3, 11	1 15
722 721		1 15 18
,	Next-generation mammalian genetics toward organism-level systems biology. 2017 , 3, 15 TALEN-mediated genome-editing approaches in the liverwort yield high efficiencies for targeted	·
721	Next-generation mammalian genetics toward organism-level systems biology. 2017 , 3, 15 TALEN-mediated genome-editing approaches in the liverwort yield high efficiencies for targeted mutagenesis. 2017 , 13, 20 Applications of genome editing by programmable nucleases to the metabolic engineering of	18
721 720	Next-generation mammalian genetics toward organism-level systems biology. 2017 , 3, 15 TALEN-mediated genome-editing approaches in the liverwort yield high efficiencies for targeted mutagenesis. 2017 , 13, 20 Applications of genome editing by programmable nucleases to the metabolic engineering of secondary metabolites. 2017 , 241, 50-60	18

716	Use of TALEs and TALEN Technology for Genetic Improvement of Plants. 2017, 35, 1-19	23
715	Targeted promoter editing for rice resistance to Xanthomonas oryzae pv. oryzae reveals differential activities for SWEET14-inducing TAL effectors. 2017 , 15, 306-317	118
714	Genome editing in cardiovascular diseases. 2017 , 14, 11-20	57
713	Generation of Stable Knockout Mammalian Cells by TALEN-Mediated Locus-Specific Gene Editing. 2017 , 1498, 107-120	1
712	An engineered promoter driving expression of a microbial avirulence gene confers recognition of TAL effectors and reduces growth of diverse Xanthomonas strains in citrus. 2017 , 18, 976-989	12
711	Action modes of transcription activator-like effectors (TALEs) of Xanthomonas in plants. 2017 , 16, 2736-2745	10
710	Locus-specific ChIP combined with NGS analysis reveals genomic regulatory regions that physically interact with the Pax5 promoter in a chicken B cell line. 2017 , 24, 537-548	10
709	Significant Role of the Superhelical Motion of TALE in DNA Recognition. 2017 , 57, 127-130	
708	Exploiting the sequence diversity of TALE-like repeats to vary the strength of dTALE-promoter interactions. 2017 , 2, ysx004	1
707	Therapeutic genome editing with engineered nucleases. 2017 , 37, 45-52	10
706	Progress in Genome Editing Technology and Its Application in Plants. <i>Frontiers in Plant Science</i> , 2017 , 8, 177	54
705	DNA Methylation Affects the Efficiency of Transcription Activator-Like Effector Nucleases-Mediated Genome Editing in Rice. <i>Frontiers in Plant Science</i> , 2017 , 8, 302	10
704	Effector Mimics and Integrated Decoys, the Never-Ending Arms Race between Rice and. <i>Frontiers in Plant Science</i> , 2017 , 8, 431	10
703	Virus-Bacteria Rice Co-Infection in Africa: Field Estimation, Reciprocal Effects, Molecular Mechanisms, and Evolutionary Implications. <i>Frontiers in Plant Science</i> , 2017 , 8, 645	20
702	New Biotechnological Tools for the Genetic Improvement of Major Woody Fruit Species. <i>Frontiers in Plant Science</i> , 2017 , 8, 1418	62
701	Gene Editing and Crop Improvement Using CRISPR-Cas9 System. <i>Frontiers in Plant Science</i> , 2017 , 8, 19326.2	177
700	Applications of Alternative Nucleases in the Age of CRISPR/Cas9. <i>International Journal of Molecular Sciences</i> , 2017 , 18,	14
699	Commentary: CRISPR-Cas Encoding of a Digital Movie into the Genomes of a Population of Living Bacteria. 2017 , 5, 57	2

698	Synthetic Promoters and Transcription Factors for Heterologous Protein Expression in. 2017, 5, 63	26
697	How to Train a Cell-Cutting-Edge Molecular Tools. 2017 , 5, 12	7
696	May I Cut in? Gene Editing Approaches in Human Induced Pluripotent Stem Cells. 2017, 6,	30
695	Gene Drive for Mosquito Control: Where Did It Come from and Where Are We Headed?. 2017, 14,	63
694	Complete Genome Sequencing and Targeted Mutagenesis Reveal Virulence Contributions of Tal2 and Tal4b of pv. undulosa ICMP11055 in Bacterial Leaf Streak of Wheat. 2017 , 8, 1488	19
693	The TAL Effector AvrBs3 from pv. Contains Multiple Export Signals and Can Enter Plant Cells in the Absence of the Type III Secretion Translocon. 2017 , 8, 2180	16
692	Transgenesis and Gene Edition in Mammals. 2017,	
691	Dynamics of Indel Profiles Induced by Various CRISPR/Cas9 Delivery Methods. 2017 , 152, 49-67	15
690	Current strategies towards therapeutic manipulation of mtDNA heteroplasmy. 2017 , 22, 991-1010	12
689	Simple Meets Single: The Application of CRISPR/Cas9 in Haploid Embryonic Stem Cells. 2017 , 2017, 2601746	3
688	Xanthomonas adaptation to common bean is associated with horizontal transfers of genes encoding TAL effectors. 2017 , 18, 670	26
687	PhiReX: a programmable and red light-regulated protein expression switch for yeast. 2017 , 45, 9193-9205	19
686	A TALE-inspired computational screen for proteins that contain approximate tandem repeats. 2017 , 12, e0179173	
685	The genome of the cotton bacterial blight pathogen pv. strain MSCT1. 2017 , 12, 42	4
684	CRISPR/Cas9 Technology: Applications and Human Disease Modeling. 2017 , 152, 23-48	10
683	. 2017, 6,	44
682	Engineering Resistance to Plant Viruses. 2017 , 75-100	2
681	Advanced Gene Manipulation Methods for Stem Cell Theranostics. 2017 , 7, 2775-2793	9

680	CRISPR-Cas9: a promising tool for gene editing on induced pluripotent stem cells. 2017, 32, 42-61	35
679	Engineering and Application of Zinc Finger Proteins and TALEs for Biomedical Research. 2017, 40, 533-541	18
678	Recent developments in genome editing for potential use in plants. 2017 , 10,	3
677	Recent advances in the use of ZFN-mediated gene editing for human gene therapy. 2017 , 3, 33-41	14
676	Application of TALE-Based Approach for Dissecting Functional MicroRNA-302/367 in Cellular Reprogramming. 2018 , 1733, 255-263	1
675	Functional characterization of the citrus canker susceptibility gene CsLOB1. 2018 , 19, 1908	26
674	Comparative analysis of lipid-mediated CRISPR-Cas9 genome editing techniques. 2018 , 42, 849-858	1
673	The Time Is Ripe for Somatic Genome Editing: NIH Program to Strengthen Translation. 2018 , 26, 671-674	3
672	Xanthomonas oryzae pv. oryzae type III effector PthXo3JXOV suppresses innate immunity, induces susceptibility and binds to multiple targets in rice. 2018 , 365,	5
671	Genome Editing in Stem Cells for Disease Therapeutics. <i>Molecular Biotechnology</i> , 2018 , 60, 329-338	8
670	Advanced editing of the nuclear and plastid genomes in plants. 2018, 273, 42-49	22
669	CRISPR-Cas9-Based Genome Editing of Human Induced Pluripotent Stem Cells. 2018 , 44, 5B.7.1-5B.7.22	20
668	Two ancestral genes shaped the Xanthomonas campestris TAL effector gene repertoire. 2018 , 219, 391-407	16
667	Direct Bisulfite-Free Detection of 5-Methylcytosine by Using Electrochemical Measurements Aided by a Monoclonal Antibody. 2018 , 5, 1631-1635	5
666	Nanoparticle-Mediated Delivery towards Advancing Plant Genetic Engineering. 2018, 36, 882-897	194
665	FoldX accurate structural protein-DNA binding prediction using PADA1 (Protein Assisted DNA Assembly 1). 2018 , 46, 3852-3863	14
664	Applications of Genetic Breeding Biotechnologies in Chinese Aquaculture. 2018, 463-496	3
663	Efficient genome editing of wild strawberry genes, vector development and validation. 2018 , 16, 1868-1877	58

	Review of CRISPR/Cas9 sgRNA Design Tools. 2018 , 10, 455-465		113
661	Genome Editing B.C. (Before CRISPR): Lasting Lessons from the "Old Testament". 2018 , 1, 34-46		40
660	Interaction of Rice and Xanthomonas TAL Effectors. 2018, 375-391		1
659	Rice Genome Editing. 2018 , 523-539		1
658	Crop Improvement Using Genome Editing. 2018 , 55-101		3
657	Genome editing technologies and their applications in crop improvement. 2018 , 12, 57-68		28
656	A surrogate reporter system for multiplexable evaluation of CRISPR/Cas9 in targeted mutagenesis. 2018 , 8, 1042		5
655	Transplantation of Gene-Edited Hepatocyte-like Cells Modestly Improves Survival of Arginase-1-Deficient Mice. 2018 , 10, 122-130		9
654	Recognition of Oxidized 5-Methylcytosine Derivatives in DNA by Natural and Engineered Protein Scaffolds. 2018 , 18, 105-116		1
653	Gene therapy comes of age. <i>Science</i> , 2018 , 359,	33.3	598
653 652	Gene therapy comes of age. <i>Science</i> , 2018 , 359, Multiple Chemical Inducible Tal Effectors for Genome Editing and Transcription Activation. 2018 , 13, 609-617	33.3	598 11
	Multiple Chemical Inducible Tal Effectors for Genome Editing and Transcription Activation. 2018 ,	33-3	
652	Multiple Chemical Inducible Tal Effectors for Genome Editing and Transcription Activation. 2018 , 13, 609-617 Robust Transcriptional Activation in Plants Using Multiplexed CRISPR-Act2.0 and mTALE-Act	33.3	11
652 651	Multiple Chemical Inducible Tal Effectors for Genome Editing and Transcription Activation. 2018, 13, 609-617 Robust Transcriptional Activation in Plants Using Multiplexed CRISPR-Act2.0 and mTALE-Act Systems. 2018, 11, 245-256 RNA-binding specificity landscapes of designer pentatricopeptide repeat proteins elucidate	33.3	11 120
652 651 650	Multiple Chemical Inducible Tal Effectors for Genome Editing and Transcription Activation. 2018, 13, 609-617 Robust Transcriptional Activation in Plants Using Multiplexed CRISPR-Act2.0 and mTALE-Act Systems. 2018, 11, 245-256 RNA-binding specificity landscapes of designer pentatricopeptide repeat proteins elucidate principles of PPR-RNA interactions. 2018, 46, 2613-2623	33.3	11 120 25
652 651 650	Multiple Chemical Inducible Tal Effectors for Genome Editing and Transcription Activation. 2018, 13, 609-617 Robust Transcriptional Activation in Plants Using Multiplexed CRISPR-Act2.0 and mTALE-Act Systems. 2018, 11, 245-256 RNA-binding specificity landscapes of designer pentatricopeptide repeat proteins elucidate principles of PPR-RNA interactions. 2018, 46, 2613-2623 Gene editing as a promising approach for respiratory diseases. 2018, 55, 143-149 Selective recognition of 4-methylcytosine in DNA by engineered transcription-activator-like	33.3	11 120 25 6
652651650649648	Multiple Chemical Inducible Tal Effectors for Genome Editing and Transcription Activation. 2018, 13, 609-617 Robust Transcriptional Activation in Plants Using Multiplexed CRISPR-Act2.0 and mTALE-Act Systems. 2018, 11, 245-256 RNA-binding specificity landscapes of designer pentatricopeptide repeat proteins elucidate principles of PPR-RNA interactions. 2018, 46, 2613-2623 Gene editing as a promising approach for respiratory diseases. 2018, 55, 143-149 Selective recognition of 4-methylcytosine in DNA by engineered transcription-activator-like effectors. 2018, 373, Xanthomonas oryzae pv. oryzae TALE proteins recruit OsTFIIA‡ to compensate for the absence of	33-3	11 120 25 6

644	TALEN-Based Knockout System. 2018 , 1029, 131-139	6
643	Gene therapy clinical trials worldwide to 2017: An update. 2018 , 20, e3015	433
642	Zinc Fingers, TALEs, and CRISPR Systems: A Comparison of Tools for Epigenome Editing. 2018 , 1767, 19-63	47
641	DCEO Biotechnology: Tools To Design, Construct, Evaluate, and Optimize the Metabolic Pathway for Biosynthesis of Chemicals. 2018 , 118, 4-72	97
640	CRISPR/Cas9: An RNA-guided highly precise synthetic tool for plant genome editing. 2018 , 233, 1844-1859	52
639	Recent Advances in CRISPR-Cas9 Genome Editing Technology for Biological and Biomedical Investigations. 2018 , 119, 81-94	56
638	Genomes in Focus: Development and Applications of CRISPR-Cas9 Imaging Technologies. 2018 , 57, 4329-4337	46
637	Modeling neurological diseases using iPSC-derived neural cells : iPSC modeling of neurological diseases. 2018 , 371, 143-151	36
636	Genome editing in fishes and their applications. 2018 , 257, 3-12	39
635	Harnessing CRISPR/Cas systems for programmable transcriptional and post-transcriptional regulation. 2018 , 36, 295-310	60
634	daTALbase: A Database for Genomic and Transcriptomic Data Related to TAL Effectors. 2018 , 31, 471-480	9
633	Chemical signaling involved in plant-microbe interactions. 2018 , 47, 1652-1704	90
632	Genome im Fokus: Entwicklung und Anwendungen von CRISPR-Cas9-Bildgebungstechnologien. 2018 , 130, 4412-4420	2
631	A Comparison of Techniques to Evaluate the Effectiveness of Genome Editing. 2018 , 36, 147-159	25
630	Improvements in algal lipid production: a systems biology and gene editing approach. 2018, 38, 369-385	51
629	A Brief Comparative History Analysis: Plastic Surgery and Gene Editing. 2018 , 2, 56-61	
628	DNA methylation and de-methylation using hybrid site-targeting proteins. 2018, 19, 187	29
627	dCas9-mediated Nanoelectrokinetic Direct Detection of Target Gene for Liquid Biopsy. 2018 , 18, 7642-7650	32

626	Enhanced triacylglycerol production in the diatom by inactivation of a Hotdog-fold thioesterase gene using TALEN-based targeted mutagenesis. 2018 , 11, 312		23
625	Gene Knockout and Its Principle and Application in Sex Control of Fish Species. 2018, 117-136		О
624	Shape selective bifacial recognition of double helical DNA. 2018 , 1,		20
623	The CRISPR/Cas9 System for Crop Improvement: Progress and Prospects. 2018,		2
622	Molecular tools to create new strains for mosquito sexing and vector control. 2018 , 11, 645		6
621	Establishment of a conditional TALEN system using the translational enhancer dMac3 and an inducible promoter activated by glucocorticoid treatment to increase the frequency of targeted mutagenesis in plants. 2018 , 13, e0208959		2
620	Universal CARs, universal T cells, and universal CAR T cells. 2018 , 11, 132		110
619	A Strain of an Emerging Indian pv. oryzae Pathotype Defeats the Rice Bacterial Blight Resistance Gene Without Inducing a Clade III Gene and Is Nearly Identical to a Recent Thai Isolate. 2018 , 9, 2703		12
618	Sleeping beauty transposon-mediated poly(A)-trapping and insertion mutagenesis in mouse embryonic stem cells. 2018 , 59, 687-697		1
617	Genome Editing of Pigs for Agriculture and Biomedicine. 2018 , 9, 360		43
616	DNA, RNA, and Protein Tools for Editing the Genetic Information in Human Cells. 2018, 6, 247-263		19
615	Rice Routes of Countering. International Journal of Molecular Sciences, 2018, 19,	6.3	26
614	Genetic Engineering of Human Embryonic Stem Cells for Precise Cell Fate Tracing during Human Lineage Development. 2018 , 11, 1257-1271		10
613	Brain Organoids and the Study of Neurodevelopment. 2018 , 24, 982-990		44
612	The CRISPR/Cas revolution continues: From efficient gene editing for crop breeding to plant synthetic biology. 2018 , 60, 1127-1153		66
611	Efficient and Orthogonal Transcription Regulation by Chemically Inducible Artificial Transcription Factors. 2018 , 57, 6452-6459		8
610	Protocol of Phytophthora capsici Transformation Using the CRISPR-Cas9 System. 2018 , 1848, 265-274		4
609	High-specificity double-stranded DNA detection with a "humanoid" molecular beacon and TALEs. 2018 , 10, 18354-18361		5

608	Efficient enrichment cloning of TAL effector genes from. 2018 , 5, 1027-1032	4
607	DNA-based memory devices for recording cellular events. 2018 , 19, 718-732	51
606	Targeted Genome Engineering in Xenopus Using the Transcription Activator-Like Effector Nuclease (TALEN) Technology. 2018 , 1865, 55-65	1
605	Manufacturing and Delivering Genome-Editing Proteins. 2018 , 1867, 253-273	2
604	Genome editing in diatoms: achievements and goals. 2018 , 37, 1401-1408	36
603	The Role of Gene Editing in Neurodegenerative Diseases. 2018 , 27, 364-378	7
602	Targeted Mitochondrial Genome Elimination. 2018, 535-563	1
601	Generation of genetically-engineered animals using engineered endonucleases. 2018, 41, 885-897	16
600	Combining Induced Pluripotent Stem Cells and Genome Editing Technologies for Clinical Applications. 2018 , 27, 379-392	22
599	Identification of a cell-penetrating peptide applicable to a protein-based transcription activator-like effector expression system for cell engineering. 2018 , 173, 11-21	10
598	The CRISPR tool kit for genome editing and beyond. 2018 , 9, 1911	684
597	Functional analysis of African Xanthomonas oryzae pv. oryzae TALomes reveals a new susceptibility gene in bacterial leaf blight of rice. 2018 , 14, e1007092	36
596	Biomolecular Therapeutics for HIV. 2018 , 541-567	О
595	Myoediting: Toward Prevention of Muscular Dystrophy by Therapeutic Genome Editing. 2018 , 98, 1205-1240	18
594	Fishing for understanding: Unlocking the zebrafish gene editor's toolbox. 2018 , 150, 3-10	18
593	The Transition of Zebrafish Functional Genetics From Random Mutagenesis to Targeted Integration. 2018 , 401-416	3
592	and Suppress pvInduced Hypersensitive Response and Non-host Resistance in Tomato. <i>Frontiers in Plant Science</i> , 2018 , 9, 285	12
591	Genomics-Enabled Next-Generation Breeding Approaches for Developing System-Specific Drought Tolerant Hybrids in Maize. <i>Frontiers in Plant Science</i> , 2018 , 9, 361	31

(2018-2018)

590	Differential Suppression of Innate Immune Responses by Transiently Expressed Type III Effectors. <i>Frontiers in Plant Science</i> , 2018 , 9, 688	6.2	12
589	Pathway Editing Targets for Thiamine Biofortification in Rice Grains. <i>Frontiers in Plant Science</i> , 2018 , 9, 975	6.2	15
588	Animal Biotechnology 2. 2018 ,		2
587	A simple and cost-effective method for screening of CRISPR/Cas9-induced homozygous/biallelic mutants. 2018 , 14, 40		34
586	Targeted Genome Editing for Crop Improvement in Post Genome-Sequencing Era. 2018, 373-390		1
585	Genetic Engineering of Horticultural Crops. 2018 , 23-46		9
584	Commentary: Programmable base editing of AIT to GIC in genomic DNA without DNA cleavage. 2018 , 9, 21		9
583	Gene Therapy for Chronic HBV-Can We Eliminate cccDNA?. 2018 , 9,		41
582	CRISPR Crops: Plant Genome Editing Toward Disease Resistance. 2018 , 56, 479-512		138
581	Targeted Gene Knock Out Using Nuclease-Assisted Vector Integration: Hemi- and Homozygous Deletion of JAG1. 2018 , 1772, 233-248		3
580	Use of gene-editing technology to introduce targeted modifications in pigs. 2018 , 9, 5		38
579	Engineering altered protein-DNA recognition specificity. 2018 , 46, 4845-4871		24
578	The pepper Bs4C proteins are localized to the endoplasmic reticulum (ER) membrane and confer disease resistance to bacterial blight in transgenic rice. 2018 , 19, 2025		13
577	Development and Function of the Zebrafish Neuroendocrine System. 2018 , 101-131		7
576	Pacbio sequencing of copper-tolerant Xanthomonas citri reveals presence of a chimeric plasmid structure and provides insights into reassortment and shuffling of transcription activator-like effectors among X. citri strains. 2018 , 19, 16		29
575	Humanized model mice by genome editing and engraftment technologies. 2018 , 14, 255-261		1
574	DNA Nucleases and their Use in Livestock Production. 2018 , 123-148		1
573	Precision gene editing technology and applications in nephrology. 2018, 14, 663-677		24

572	Functional and Genome Sequence-Driven Characterization of Effector Gene Repertoires Reveals Novel Variants With Altered Specificities in Closely Related Malian pv. Strains. 2018 , 9, 1657	17
571	Gene Therapy Methods and Their Applications in Neurological Disorders. 2018 , 3-39	2
57°	Induced Pluripotent Stem Cells: A Powerful Neurodegenerative Disease Modeling Tool for Mechanism Study and Drug Discovery. 2018 , 27, 1588-1602	19
569	Genome Editing in Agricultural Biotechnology. 2018 , 86, 245-286	5
568	Gene Editing on Center Stage. 2018 , 34, 600-611	65
567	Repeat-containing effectors of filamentous pathogens and symbionts. 2018 , 46, 123-130	3
566	RNA Interference in Planarians: Feeding and Injection of Synthetic dsRNA. 2018 , 1774, 455-466	7
565	Applications and advances of CRISPR-Cas9 in cancer immunotherapy. 2019 , 56, 4-9	27
564	The advances in CRISPR technology and 3D genome. 2019 , 90, 54-61	6
563	Applications of CRISPR/Cas9 Technology in the Treatment of Lung Cancer. 2019 , 25, 1039-1049	23
562	Optimized CRISPR/Cas9-mediated in vivo genome engineering applicable to monitoring dynamics of endogenous proteins in the mouse neural tissues. 2019 , 9, 11309	6
561	A Decade Decoded: Spies and Hackers in the History of TAL Effectors Research. 2019 , 57, 459-481	27
560	Modern Trends in Plant Genome Editing: An Inclusive Review of the CRISPR/Cas9 Toolbox. International Journal of Molecular Sciences, 2019 , 20, 6.3	89
559	An efficient method to clone TAL effector genes from Xanthomonas oryzae using Gibson assembly. 2019 , 20, 1453-1462	5
558	Learning from transgenics: Advanced gene editing technologies should also bridge the gap with traditional genetic selection. 2019 , 41, 22-29	2
557	Single-Cell Editing: The CRISPR/Cas9 and Applications. 2019 , 397-415	O
556	Programmable RNA editing by recruiting endogenous ADAR using engineered RNAs. 2019, 37, 1059-1069	72
555	PrediTALE: A novel model learned from quantitative data allows for new perspectives on TALE targeting. 2019 , 15, e1007206	8

554	Epigenetics and addiction. 2019 , 59, 128-136	37
553	PthA4, a 7.5-repeats transcription activator-like (TAL) effector from Xanthomonas citri ssp. citri, triggers citrus canker resistance. 2019 , 20, 1394-1407	8
552	TargeTALE: A Web Resource to Identify TALEs in Genomes and Their Respective Targets. 2019 , 32, 1577-1580)
551	Genome editing for horticultural crop improvement. 2019 , 6, 113	49
550	Can Designer Indels Be Tailored by Gene Editing?: Can Indels Be Customized?. 2019 , 41, e1900126	2
549	Broad-spectrum resistance to bacterial blight in rice using genome editing. 2019 , 37, 1344-1350	251
548	Diagnostic kit for rice blight resistance. 2019 , 37, 1372-1379	55
547	The Transgenic Toolbox. 2019 , 212, 959-990	60
546	Endogenous CRISPR-Cas System-Based Genome Editing and Antimicrobials: Review and Prospects. 2019 , 10, 2471	24
545	RNA-Seq analysis of gene expression changes triggered by Xanthomonas oryzae pv. oryzae in a susceptible rice genotype. 2019 , 12, 44	10
544	Modified nucleobase-specific gene regulation using engineered transcription activator-like effectors. 2019 , 147, 59-65	3
543	Endogenous Fluorescence Tagging by CRISPR. 2019 , 29, 912-928	23
542	Engineering Broad-Spectrum Bacterial Blight Resistance by Simultaneously Disrupting Variable TALE-Binding Elements of Multiple Susceptibility Genes in Rice. 2019 , 12, 1434-1446	111
541	CRISPR/Cas9: Development and Application in Rice Breeding. 2019 , 26, 265-281	22
540	commandeers the host rate-limiting step in ABA biosynthesis for disease susceptibility. 2019 , 116, 20938-209	146 9
539	Disease Resistance and Susceptibility Genes to Bacterial Blight of Rice. 2019,	1
538	Transcriptional Reprogramming of Rice Cells by TALEs. <i>Frontiers in Plant Science</i> , 2019 , 10, 162 6.2	21
537	CRISPR-Based Tools in Immunity. 2019 , 37, 571-597	31

536	Genome Engineering Tools in Plant Synthetic Biology. 2019 , 47-73	6
535	Progress and Challenges for Live-cell Imaging of Genomic Loci Using CRISPR-based Platforms. 2019 , 17, 119-128	40
534	Edit at will: Genotype independent plant transformation in the era of advanced genomics and genome editing. 2019 , 281, 186-205	38
533	A Pathovar of Infecting Wild Grasses Provides Insight Into the Evolution of Pathogenicity in Rice Agroecosystems. <i>Frontiers in Plant Science</i> , 2019 , 10, 507	9
532	TALEs 🗓 0 Jahre nach Entschl\selung des Codes. 2019 , 25, 375-377	
531	Diversity and Evolution of Type III Secreted Effectors: A Case Study of Three Families. 2020 , 427, 201-230	5
530	Development of CRISPR-Cas systems for genome editing and beyond. 2019 , 52,	57
529	Transposable-Element Vectors and Other Methods to Genetically Modify Drosophila and Other Insects. 2019 , 315-344	
528	PRRs and NB-LRRs: From Signal Perception to Activation of Plant Innate Immunity. <i>International Journal of Molecular Sciences</i> , 2019 , 20,	37
527	Precise editing of plant genomes - Prospects and challenges. 2019 , 96, 115-123	8
526	Efficient genome engineering of Toxoplasma gondii using the TALEN technique. 2019 , 12, 112	3
525	Complete Genome Sequences of Xanthomonas axonopodis pv. glycines Isolates from the United States and Thailand Reveal Conserved Transcription Activator-Like Effectors. 2019 , 11, 1380-1384	3
524	A guide for drug inducible transcriptional activation with HIT systems. 2019 , 621, 69-86	
523	A guide for drug inducible genome editing with HIT systems. 2019 , 621, 53-68	
522	Inducible overexpression of Ideal Plant Architecture1 improves both yield and disease resistance in rice. 2019 , 5, 389-400	61
521	Transcriptome analysis of a rice cultivar reveals the differentially expressed genes in response to wild and mutant strains of Xanthomonas oryzae pv. oryzae. 2019 , 9, 3757	12
520	CRISPR-Cas in Streptococcus pyogenes. 2019 , 16, 380-389	38
519	A Practical Guide to Genome Editing Using Targeted Nuclease Technologies. 2019 , 9, 665-714	3

518 Precision Genome Editing in Human-Induced Pluripotent Stem Cells. 2019, 113-130

5 1 7	An effective strategy to establish a male sterility mutant mini-library by CRISPR/Cas9-mediated knockout of anther-specific genes in rice. 2019 , 46, 273-275	10
516	CRISPR/Cas-Mediated Base Editing: Technical Considerations and Practical Applications. 2019 , 37, 1121-1142	158
515	Generate TALE/TALEN as Easily and Rapidly as Generating CRISPR. 2019 , 13, 310-320	5
514	Elimination of Mutant Mitochondrial DNA in Mitochondrial Myopathies Using Gene-Editing Enzymes. 2019 , 597-620	
513	The Neuromodulator Adenosine Regulates Oligodendrocyte Migration at Motor Exit Point Transition Zones. 2019 , 27, 115-128.e5	12
512	Loss-of-function approaches in comparative physiology: is there a future for knockdown experiments in the era of genome editing?. 2019 , 222,	19
511	Development and Application of CRISPR/Cas System in Rice. 2019 , 26, 69-76	8
510	Emerging Trends and Tools in Transgenic Plant Technology for Phytoremediation of Toxic Metals and Metalloids. 2019 , 63-88	8
509	Simultaneously down-regulation of multiplex branch pathways using CRISPRi and fermentation optimization for enhancing hmyrin production in. 2019 , 4, 79-85	21
508	Constructing Synthetic Pathways in Plants: Strategies and Tools. 2019 , 77-113	0
507	Truncated TALE-FP as DNA Staining Dye in a High-salt Buffer. 2019 , 9, 17197	6
506	Challenges and Perspectives in Homology-Directed Gene Targeting in Monocot Plants. 2019 , 12, 95	26
505	Carrot genome editing using CRISPR-based systems. 2019 , 53-66	1
504	Genome Editing. 2019 , 225-260	
503	Efficient somatic and germline genome engineering of Bactrocera dorsalis by the CRISPR/Cas9 system. 2019 , 75, 1921-1932	8
502	Principles of gene editing techniques and applications in animal husbandry. 2019 , 9, 28	4
501	Polarized displacement by transcription activator-like effectors for regulatory circuits. 2019 , 15, 80-87	3

500	Chromatin imaging and new technologies for imaging the nucleome. 2019 , 11, e1442	4
499	An azoospermic factor gene, Ddx3y and its paralog, Ddx3x are dispensable in germ cells for male fertility. 2019 , 65, 121-128	18
498	The first genetically gene-edited babies: It's "irresponsible and too early". 2019 , 2, 1-4	5
497	iPSCs as a Platform for Disease Modeling, Drug Screening, and Personalized Therapy in Muscular Dystrophies. 2019 , 8,	26
496	Programmable Molecular Scissors: Applications of a New Tool for Genome Editing in Biotech. 2019 , 14, 212-238	25
495	CRISPR/Cas9-Based Genome Editing and its Applications for Functional Genomic Analyses in Plants. 2019 , 3, 1800473	12
494	Split-TALE: A TALE-Based Two-Component System for Synthetic Biology Applications in Planta. 2019 , 179, 1001-1012	8
493	CRISPR-Cas9 a boon or bane: the bumpy road ahead to cancer therapeutics. 2019 , 19, 12	33
492	CRISPR-Cas9-Mediated Genome Editing of Rice Towards Better Grain Quality. 2019 , 1892, 311-336	6
491	TALE-carrying bacterial pathogens trap host nuclear import receptors for facilitation of infection of rice. 2019 , 20, 519-532	15
490	Mutations in chemokine receptors and AIDS. 2019 , 161, 113-124	5
489	Dissecting Tissue-Specific Super-Enhancers by Integrating Genome-Wide Analyses and CRISPR/Cas9 Genome Editing. 2019 , 24, 47-59	6
488	The role of environmental exposures and the epigenome in health and disease. 2020 , 61, 176-192	25
487	Harnessing CRISPR/Cas9 technology in cardiovascular disease. 2020 , 30, 93-101	5
486	Genome editing in grass plants. 2020 , 1, 41-57	7
485	Optogenetics sheds new light on tissue engineering and regenerative medicine. 2020 , 227, 119546	11
484	Engineering plant virus resistance: from RNA silencing to genome editing strategies. 2020 , 18, 328-336	31
483	Genome editing in animals: an overview. 2020 , 75-104	1

482 Concepts and potential applications of gene editing in aquaculture. **2020**, 249-270

481	Modulation of animal health through reverse genetics applications. 2020 , 163-182	1
480	CRISPR/Cas9: Nature's gift to prokaryotes and an auspicious tool in genome editing. 2020 , 60, 91-102	10
479	Applications of genome editing technology in the targeted therapy of human diseases: mechanisms, advances and prospects. 2020 , 5, 1	579
478	Structural Insights into the Specific Recognition of 5-methylcytosine and 5-hydroxymethylcytosine by TAL Effectors. 2020 , 432, 1035-1047	4
477	Divalent cations promote TALE DNA-binding specificity. 2020 , 48, 1406-1422	3
476	Recent advances in Medicago spp. genetic engineering strategies. 2020 , 1149-1161	2
475	Advances toward Curing HIV-1 Infection in Tissue Reservoirs. 2020 , 94,	23
474	Genetic transformation of Triticeae cereals - Summary of almost three-decade's development. 2020 , 40, 107484	10
473	'Off-the-shelf' allogeneic CAR T cells: development and challenges. 2020 , 19, 185-199	267
472	Context and number of noncanonical repeat variable diresidues impede the design of TALE proteins with improved DNA targeting. 2020 , 29, 606-616	2
471	Manipulating and elucidating mitochondrial gene expression with engineered proteins. 2020 , 375, 20190185	3
47°	Mapping and editing animal mitochondrial genomes: can we overcome the challenges?. 2020 , 375, 20190187	7
469	Delivery Approaches for Therapeutic Genome Editing and Challenges. 2020 , 11,	20
468	SWEET Genes for Disease Resistance in Plants. 2020 , 36, 901-904	8
467	An Resistance Gene-Breaking Indian Strain of the Rice Bacterial Blight Pathogen pv. oryzae Is Nearly Identical to a Thai Strain. 2020 , 11, 579504	4
466	Is microfluidics the "assembly line" for CRISPR-Cas9 gene-editing?. 2020 , 14, 061301	2
465	Recent advances of genome editing and related technologies in China. 2020 , 27, 312-320	1

464	Genetic Engineering of Zebrafish in Cancer Research. 2020 , 12,	19
463	In vivo locus-specific editing of the neuroepigenome. 2020 , 21, 471-484	22
462	Integration of CRISPR-engineering and hiPSC-based models of psychiatric genomics. 2020, 107, 103532	3
461	MitoTALENs for mtDNA editing. 2020 , 481-498	
460	One-Day TALEN Assembly Protocol and a Dual-Tagging System for Genome Editing. 2020 , 5, 19702-19714	2
459	Regulation of IL12B Expression in Human Macrophages by TALEN-mediated Epigenome Editing. 2020 , 40, 900-909	2
458	Computational Identification of Repeat-Containing Proteins and Systems. 2020, 1,	
457	Modulation of DNA double-strand break repair as a strategy to improve precise genome editing. 2020 , 39, 6393-6405	19
456	The era of editing plant genomes using CRISPR/Cas: A critical appraisal. 2020 , 324, 34-60	8
455	I-I Endonuclease-Mediated Plant Genome Editing by Protein Transport through a Bacterial Type III Secretion System. 2020 , 9,	1
454	The immunity of Meiwa kumquat against Xanthomonas citri is associated with a known susceptibility gene induced by a transcription activator-like effector. 2020 , 16, e1008886	13
453	Microbial Cell Factory for Efficiently Synthesizing Plant Natural Products via Optimizing the Location and Adaptation of Pathway on Genome Scale. 2020 , 8, 969	3
452	Immunodeficient Rabbit Models: History, Current Status and Future Perspectives. 2020, 10, 7369	1
451	CRISPR_Cas systems for fungal research. 2020 , 34, 189-201	9
450	CRISPR-Cas genome editing tool: a narrow lane of cancer therapeutics with potential blockades 2020 , 9, 3135-3141	
449	Genome editing technology and application in soybean improvement. 2020 , 5, 31-40	11
448	Molecular mechanisms, off-target activities, and clinical potentials of genome editing systems. 2020 , 10, 412-426	14
447	Progress and Challenges in the Improvement of Ornamental Plants by Genome Editing. 2020 , 9,	14

(2020-2020)

446	CRISPR-Cas9 gene editing causes alternative splicing of the targeting mRNA. 2020 , 528, 54-61	2
445	Allelic Genes Activate Rice Blight Resistance Suppressed by Interfering TAL Effectors. 2020 , 1, 100087	26
444	Applications of CRISPR technologies in transplantation. 2020 , 20, 3285-3293	2
443	Ethical considerations of gene editing and genetic selection. 2020 , 21, 37-47	4
442	Genome engineering in insects: focus on the CRISPR/Cas9 system. 2020 , 219-249	5
441	Rapid and precise genome editing in a marine diatom, Thalassiosira pseudonana by Cas9 nickase (D10A). 2020 , 47, 101855	3
440	Models of Technology Transfer for Genome-Editing Technologies. 2020 , 21, 509-534	4
439	Genome Editing and Rice Grain Quality. 2020 , 395-422	2
438	Gene editing and central nervous system regeneration. 2020 , 399-433	
437	A Tale of Two Moieties: Rapidly Evolving CRISPR/Cas-Based Genome Editing. 2020 , 45, 874-888	11
437	A Tale of Two Moieties: Rapidly Evolving CRISPR/Cas-Based Genome Editing. 2020 , 45, 874-888 Epigenome Editing. 2020 ,	11
		11
436	Epigenome Editing. 2020, Deciphering Rice Lesion Mimic Mutants to Understand Molecular Network Governing Plant	
436	Epigenome Editing. 2020, Deciphering Rice Lesion Mimic Mutants to Understand Molecular Network Governing Plant Immunity and Growth. 2020, 27, 278-288 CRISPR/Cas9-mediated mutation of OsSWEET14 in rice cv. Zhonghua11 confers resistance to	8
436 435 434	Epigenome Editing. 2020, Deciphering Rice Lesion Mimic Mutants to Understand Molecular Network Governing Plant Immunity and Growth. 2020, 27, 278-288 CRISPR/Cas9-mediated mutation of OsSWEET14 in rice cv. Zhonghua11 confers resistance to Xanthomonas oryzae pv. oryzae without yield penalty. 2020, 20, 313	8 29
436 435 434 433	Epigenome Editing. 2020, Deciphering Rice Lesion Mimic Mutants to Understand Molecular Network Governing Plant Immunity and Growth. 2020, 27, 278-288 CRISPR/Cas9-mediated mutation of OsSWEET14 in rice cv. Zhonghua11 confers resistance to Xanthomonas oryzae pv. oryzae without yield penalty. 2020, 20, 313 Engineering Tobacco for Plant Natural Product Production. 2020, 244-262 A TAL effector-like protein of an endofungal bacterium increases the stress tolerance and alters	8 29 0
436 435 434 433	Epigenome Editing. 2020, Deciphering Rice Lesion Mimic Mutants to Understand Molecular Network Governing Plant Immunity and Growth. 2020, 27, 278-288 CRISPR/Cas9-mediated mutation of OsSWEET14 in rice cv. Zhonghua11 confers resistance to Xanthomonas oryzae pv. oryzae without yield penalty. 2020, 20, 313 Engineering Tobacco for Plant Natural Product Production. 2020, 244-262 A TAL effector-like protein of an endofungal bacterium increases the stress tolerance and alters the transcriptome of the host. 2020, 117, 17122-17129	8 29 0

428	Principles, Applications, and Biosafety of Plant Genome Editing Using CRISPR-Cas9. <i>Frontiers in Plant Science</i> , 2020 , 11, 56	6.2	63
427	CRISPR/Cas9-mediated genome editing: From basic research to translational medicine. 2020 , 24, 3766-3	3778	32
426	Mitochondrial DNA heteroplasmy in disease and targeted nuclease-based therapeutic approaches. 2020 , 21, e49612		18
425	The clinical potential of gene editing as a tool to engineer cell-based therapeutics. 2020 , 9, 15		30
424	TALEN-based editing of TFIIAy5 changes rice response to Xanthomonas oryzae pv. Oryzae. 2020 , 10, 2036		7
423	Extensive Genomic Rearrangements along with Distinct Mobilome and TALome are Associated with Extreme Pathotypes of a Rice Pathogen. 2020 , 12, 3951-3956		
422	Development of a protein-based system for transient epigenetic repression of immune checkpoint molecule and enhancement of antitumour activity of natural killer cells. 2020 , 122, 823-834		4
421	Applications and explorations of CRISPR/Cas9 in CAR T-cell therapy. 2020 , 19, 175-182		33
420	Genome Editing for the Understanding and Treatment of Inherited Cardiomyopathies. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	9
419	Chimerization Enables Gene Synthesis and Lentiviral Delivery of Customizable TALE-Based Effectors. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	4
418	Manipulation of mitochondrial genes and mtDNA heteroplasmy. 2020, 155, 441-487		5
417	Enrichment Reporter System of Genome Editing Positive Cells. 2020 , 48, 1-12		
416	CRISPR/Cas Derivatives as Novel Gene Modulating Tools: Possibilities and In Vivo Applications. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	11
415	Xanthomonas diversity, virulence and plant-pathogen interactions. 2020 , 18, 415-427		66
414	The L motifs of two moss pentatricopeptide repeat proteins are involved in RNA editing but predominantly not in RNA recognition. 2020 , 15, e0232366		1
413	Gene regulations and delivery vectors for treatment of cancer. 2020 , 50, 309-326		2
412	Adenoviral Vectors Meet Gene Editing: A Rising Partnership for the Genomic Engineering of Human Stem Cells and Their Progeny. 2020 , 9,		8
411	Tuning up Transcription Factors for Therapy. 2020 , 25,		2

(2021-2020)

410	Identification and prevention of heterotopias in mouse neocortical neural cell migration incurred by surgical damages during utero electroporation procedures. 2020 , 24, 114-123		2
409	Porcine genome engineering for xenotransplantation. 2021 , 168, 229-245		10
408	In vitro transcribed mRNA for expression of designer nucleases: Advantages as a novel therapeutic for the management of chronic HBV infection. 2021 , 168, 134-146		7
407	CRISPR Tools for Physiology and Cell State Changes: Potential of Transcriptional Engineering and Epigenome Editing. 2021 , 101, 177-211		5
406	A primer to gene therapy: Progress, prospects, and problems. 2021 , 44, 54-71		4
405	Genome editing: applications for medicinal and aromatic plants. 2021 , 119-144		5
404	Resistance and susceptibility QTL identified in a rice MAGIC population by screening with a minor-effect virulence factor from Xanthomonas oryzae pv. oryzae. 2021 , 19, 51-63		3
403	The genetic arms race between plant and Xanthomonas: lessons learned from TALE biology. 2021 , 64, 51-65		4
402	GM Crops for Plant Virus Resistance: A Review. 2021 , 257-337		
401	Genetically Modified Crops. 2021 ,		O
400	Revisiting gene delivery to the brain: silencing and editing. 2021 , 9, 1065-1087		5
399	CRISPR technology: The engine that drives cancer therapy. 2021 , 133, 111007		17
			-/
398	Gene and Genome Editing with CRISPR/Cas Systems for Fruit and Vegetable Improvement. Concepts and Strategies in Plant Sciences, 2021 , 227-245	0.5	-,
398 397		0.5	0
	Concepts and Strategies in Plant Sciences, 2021 , 227-245 CRISPR-Cas9 system for functional genomics of filamentous fungi: applications and challenges.	0.5	
397	Concepts and Strategies in Plant Sciences, 2021 , 227-245 CRISPR-Cas9 system for functional genomics of filamentous fungi: applications and challenges. 2021 , 541-576	0.5	
397 396	Concepts and Strategies in Plant Sciences, 2021, 227-245 CRISPR-Cas9 system for functional genomics of filamentous fungi: applications and challenges. 2021, 541-576 A brief history and primer on genome editing. 2021, 1-19	0.5	0

392	An Overview of Genome-Engineering Methods. 2021 , 1-21	3
391	CRISPR-Cas systems for genome editing of mammalian cells. 2021 , 181, 15-30	2
390	Genome editing and RNA interference technologies in plants. 2021 , 195-212	
389	Genome editing in the human liver: Progress and translational considerations. 2021 , 182, 257-288	Ο
388	Genome Editing in Y. lipolytica Using TALENs. 2021 , 2307, 25-39	1
387	Precision genome editing using cytosine and adenine base editors in mammalian cells. 2021 , 16, 1089-1128	27
386	How structural biology transformed studies of transcription regulation. 2021 , 296, 100741	4
385	Optimization of CRISPR/Cas System for Improving Genome Editing Efficiency in. 2020 , 11, 625862	4
384	Genome Editing to Develop Disease Resistance in Crops. 2021 , 224-252	О
383	Functional Comparison between VP64-dCas9-VP64 and dCas9-VP192 CRISPR Activators in Human Embryonic Kidney Cells. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	3
382	Convergence of human pluripotent stem cell, organoid, and genome editing technologies. 2021 , 246, 861-875	2
381	Pearl Millet Blast Resistance: Current Status and Recent Advancements in Genomic Selection and Genome Editing Approaches. 2021 , 183-200	O
380	Genome editing for plant research and crop improvement. 2021 , 63, 3-33	24
379	An introduction to CRISPR-Cas systems for reprogramming the genome of mammalian cells. 2021 , 181, 1-13	
378	Modulating Cas9 activity for precision gene editing. 2021 , 181, 89-127	
377	Genome engineering technologies in rabbits. 2020 , 35, 135-147	5
376	Genome Editing Technologies for Plant Improvement: Advances, Applications and Challenges. 2021 , 213-240	
375	Fungal genome editing using CRISPR-Cas nucleases: a new tool for the management of plant diseases. 2021 , 333-360	O

374 Genome Engineering Strategies for Quality Improvement in Tomato. **2021**, 281-296

373	A Small Key for a Heavy Door: Genetic Therapies for the Treatment of Hemoglobinopathies. Frontiers in Genome Editing, 2020 , 2, 617780	2.5	1
372	Genetically Modified Rabbits for Cardiovascular Research. 2021 , 12, 614379	,	3
371	Future Approaches for Treating Chronic Myeloid Leukemia: CRISPR Therapy. 2021 , 10,	ļ	5
370	Mini-Review Regarding the Applicability of Genome Editing Techniques Developed for Studying Infertility. 2021 , 11,	;	2
369	TALE-triggered and iTALE-suppressed Xa1-mediated resistance to bacterial blight is independent of rice transcription factor subunits OsTFIIA or OsTFIIA 72, 3249-3262	ļ	5
368	Bacterium-Enabled Transient Gene Activation by Artificial Transcription Factor for Resolving Gene Regulation in Maize.		
367	Epigenetic rewriting at centromeric DNA repeats leads to increased chromatin accessibility and chromosomal instability.		
366	Genome Editing Therapeutic Approaches for Neurological Disorders: Where Are We in the Translational Pipeline?. 2021 , 15, 632522	4	4
365	TAL Effector Repertoires of Strains of pv. in Commercial Cassava Crops Reveal High Diversity at the Country Scale. 2021 , 9,	:	2
364	Modifiers of CAG/CTG Repeat Instability: Insights from Mammalian Models. 2021 , 10, 123-148	:	19
363	Technologies enabling rapid crop improvements for sustainable agriculture: example pennycress (Thlaspi arvense L.). 2021 , 5, 325-335		3
362	Retroviral gene therapy in Germany with a view on previous experience and future perspectives. 2021 , 28, 494-512		3
361	An atypical class of non-coding small RNAs produced in rice leaves upon bacterial infection.		
360	Targeted DNA insertion in plants. 2021 , 118,	-	15
359	Molecular Switch Engineering for Precise Genome Editing. 2021 , 32, 639-648	:	1
358	Identification of a TAL effector in Xanthomonas oryzae pv. oryzicola enhancing pathogen growth and virulence in plants. 2021 , 114, 101620		3
357	DNA-Targeted Metallodrugs: An Untapped Source of Artificial Gene Editing Technology. 2021 , 22, 2184-2	2205	1

356	Engineering Resistance to Bacterial Blight and Bacterial Leaf Streak in Rice. 2021, 14, 38		8
355	Recent advances in the application of multiplex genome editing in Saccharomyces cerevisiae. 2021 , 105, 3873-3882		1
354	Fast but not furious: a streamlined selection method for genome-edited cells. 2021, 4,		4
353	Xa7, a Small Orphan Gene Harboring Promoter Trap for AvrXa7, Leads to the Durable Resistance to Xanthomonas oryzae Pv. oryzae. 2021 , 14, 48		5
352	Consequences of Mixotrophy on Cell Energetic Metabolism in Revealed by Genetic Engineering and Metabolic Approaches. <i>Frontiers in Plant Science</i> , 2021 , 12, 628684	6.2	O
351	The application of genome editing technology in fish. 2021 , 3, 326-346		2
350	Genome editing as control tool for filarial infections. 2021 , 137, 111292		2
349	, a new executor gene that confers durable and broad-spectrum resistance to bacterial blight disease in rice. 2021 , 2, 100143		20
348	What the Wild Things Do: Mechanisms of Plant Host Manipulation by Bacterial Type III-Secreted Effector Proteins. 2021 , 9,		8
347	Increasing resistance to bacterial leaf streak in rice by editing the promoter of susceptibility gene OsSULRT3;6. 2021 , 19, 1101-1103		8
346	SWEET genes and TAL effectors for disease resistance in plants: Present status and future prospects. 2021 , 22, 1014-1026		5
345	Engineering Gene Therapy: Advances and Barriers. 2021 , 4, 2100040		2
344	Stem Cell Models and Gene Targeting for Human Motor Neuron Diseases. 2021 , 14,		3
343	CRISPR/Cas based gene editing: marking a new era in medical science. <i>Molecular Biology Reports</i> , 2021 , 48, 4879-4895	2.8	O
342	A short, idiosyncratic history of genome editing. 2021 , 1, 100002		1
341	Genome Editing of Eukarya. 2021 , 301-337		
340	Epigenetic features improve TALE target prediction.		
339	Gene Therapy for Neurodegenerative Disease: Clinical Potential and Directions. 2021 , 14, 618171		3

 $338\,$ $\,$ Designed architectural proteins that tune DNA looping in bacteria.

337	Application of CRISPR-Cas9 gene editing for congenital heart disease. 2021 , 64, 269-279	4
336	RGEN-SEQ FOR HIGHLY SENSITIVE AMPLIFICATION-FREE SCREEN OF OFF-TARGET SITES OF GENE EDITORS.	
335	Biallelic editing of the LOB1 promoter via CRISPR/Cas9 creates canker-resistant 'Duncan' grapefruit. 2021 ,	5
334	Genome Editing Revolution in Life Sciences. 2021 , 26, 971-998	
333	The Role of Metabolic Engineering Technologies for the Production of Fatty Acids in Yeast. 2021 , 10,	2
332	Epigenetic rewriting at centromeric DNA repeats leads to increased chromatin accessibility and chromosomal instability. 2021 , 14, 35	O
331	Directed Evolution: Methodologies and Applications. 2021 , 121, 12384-12444	37
330	Stop helping pathogens: engineering plant susceptibility genes for durable resistance. 2021 , 70, 187-195	1
329	Roles of small RNAs in crop disease resistance. 2021 , 1, 1	O
328	Identification of TAL and iTAL effectors in Japanese strain T7133 of Xanthomonas oryzae pv. oryzae. 2021 , 87, 354	O
327	Chromatin Alterations in Neurological Disorders and Strategies of (Epi)Genome Rescue. 2021 , 14,	O
326	Redirection of the Transcription Factor SP1 to AT Rich Binding Sites by a Synthetic Adaptor Molecule. 2021 , 104, e2100095	О
325	Intergenic spaces: a new frontier to improving plant health. 2021 , 232, 1540-1548	1
324	A centenary for bacterial spot of tomato and pepper. 2021 , 22, 1500-1519	12
323	SET DOMAIN GROUP 721 protein functions in saline-alkaline stress tolerance in the model rice variety Kitaake. 2021 , 19, 2576-2588	1
322	CARMIL3 is important for cell migration and morphogenesis during early development in zebrafish. 2022 , 481, 148-159	1
321	From Descriptive to Functional Genomics of Leukemias Focusing on Genome Engineering Techniques. International Journal of Molecular Sciences, 2021 , 22,	2

320	Designed architectural proteins that tune DNA looping in bacteria. 2021 , 49, 10382-10396	1
319	CRISPR/Cas-mediated genome editing in sorghum Decent progress, challenges and prospects. 2021 , 57, 720	1
318	Mammalian Synbio Sensors. 2022 , 435-454	
317	Advances in generating HLA-Universal platelets for transfusion medicine. 2021 , 14, 100053	
316	TALE and TALEN genome editing technologies. 2021 , 2, 100007	9
315	The evolution and history of gene editing technologies. 2021 , 178, 1-62	2
314	Application of Genome Editing in Tomato Breeding: Mechanisms, Advances, and Prospects. International Journal of Molecular Sciences, 2021, 22, 6.3	11
313	Fast but not furious: a streamlined selection method for genome edited cells.	1
312	Off-target effects in genome editing. 2021 , 715-727	O
311	Designing Biomimicking Synthetic Transcription Factors for Therapeutic Gene Modulation. 2021 , 135-161	
310	Comparative Genomics and Evolution of Bacterial Type III Effectors. 53-76	3
309	CRISPR/Cas9-Based Gene Engineering of Human Natural Killer Cells: Protocols for Knockout and Readouts to Evaluate Their Efficacy. 2020 , 2121, 213-239	7
308	Zinc Finger Nuclease-Mediated Gene Targeting in Plants. 2015 , 363-381	1
307	Mutagenesis in Xenopus and Zebrafish using TALENs. 2016 , 1338, 207-27	7
306	TAL Effector DNA-Binding Principles and Specificity. 2016 , 1338, 9-25	9
305	The Development of TALE Nucleases for Biotechnology. 2016 , 1338, 27-42	24
304	Online Tools for TALEN Design. 2016 , 1338, 43-7	1
303	Assembly of Customized TAL Effectors Through Advanced ULtiMATE System. 2016 , 1338, 49-60	3

302	Genome Editing in the Cricket, Gryllus bimaculatus. 2017 , 1630, 219-233	10
301	Current Overview of TALEN Construction Systems. 2017 , 1630, 25-36	8
300	Emerging Genome Engineering Tools in Crop Research and Breeding. 2020, 2072, 165-181	14
299	The Cricket Gryllus bimaculatus: Techniques for Quantitative and Functional Genetic Analyses of Cricket Biology. 2019 , 68, 183-216	7
298	CRISPR/Cas9 Editing in Induced Pluripotent Stem Cells: A Way Forward for Treating Cystic Fibrosis?. 2019 , 153-178	1
297	TALEN-Based Genome Editing in Yeast. 2015 , 289-307	3
296	Cell Line Development. 2015 , 1-25	2
295	Key Methods for Synthetic Biology: Genome Engineering and DNA Assembly. 2016 , 101-141	4
294	Using Genome Engineering to Understand Huntington Disease. 2017, 87-101	4
293	Protocols in the Cricket. 2017, 327-370	3
292	Genomic Intervention in Wheat Improvement. 2019 , 77-90	1
291	Genome Editing: Advances and Prospects. 2019 , 147-174	4
290	Genetic Engineering and Genome Editing Strategies to Enhance Diseases Resistance of Rice Plants: A Review of Progress and Future Prospects. 2020 , 35-59	1
289	Target-specific gene delivery in plant systems and their expression: Insights into recent developments. 2020 , 45, 1	9
288	Targeted Genetic Modification in Crops Using Site-Directed Nucleases. 2016 , 133-145	2
287	Understanding and Editing the Zebrafish Genome. 2015 , 92, 1-52	60
286	CHAPTER 18:Therapeutic Potential of Ribozymes. 2019 , 434-452	2
285	Dynamics simulations for engineering macromolecular interactions. 2013 , 23, 025110	9

284	Deciphering the mode of action and host recognition of bacterial type III effectors. 2010 , 37, 926	3
283	The Sequence of 1504 Mutants in the Model Rice Variety Kitaake Facilitates Rapid Functional Genomic Studies.	1
282	Quantitative dialing of gene expression via precision targeting of KRAB repressor.	1
281	A TAL effector-like protein of symbiotic Mycetohabitans increases stress tolerance and alters the transcriptome of the fungal host Rhizopus microsporus.	3
280	Secreted TAL effectors protect symbiotic bacteria from entrapment within fungal hyphae.	2
279	Functional analysis of African Xanthomonas oryzae pv. oryzae TALomes reveals a new susceptibility gene in bacterial leaf blight of rice.	2
278	A strain of an emerging Indian pathotype of Xanthomonas oryzae pv. oryzae defeats the rice bacterial blight resistance gene xa13 without inducing a clade III SWEET gene and is nearly identical to a recent Thai isolate.	2
277	Leveraging Endogenous ADAR for Programmable Editing on RNA.	2
276	A most formidable arsenal: genetic technologies for building a better mouse. 2020 , 34, 1256-1286	10
275	Expression, purification, crystallization and preliminary X-ray diffraction analysis of the novel modular DNA-binding protein BurrH in its apo form and in complex with its target DNA. 2014 , 70, 87-91	9
274	TALEN-mediated targeting of HPV oncogenes ameliorates HPV-related cervical malignancy. 2015 , 125, 425-36	76
273	Establishment of Efficient Microinjection System in the Porcine Embryos. 2014 , 29, 59-66	2
272	Structure of Type IIL Restriction-Modification Enzyme MmeI in Complex with DNA Has Implications for Engineering New Specificities. 2016 , 14, e1002442	14
271	Computational predictions provide insights into the biology of TAL effector target sites. 2013 , 9, e1002962	77
270	Transcriptional activators of human genes with programmable DNA-specificity. 2011 , 6, e19509	106
269	The TAL effector PthA4 interacts with nuclear factors involved in RNA-dependent processes including a HMG protein that selectively binds poly(U) RNA. 2012 , 7, e32305	24
268	Rational diversification of a promoter providing fine-tuned expression and orthogonal regulation for synthetic biology. 2012 , 7, e33279	123
267	Improved somatic mutagenesis in zebrafish using transcription activator-like effector nucleases (TALENs). 2012 , 7, e37877	135

266	Targeted gene deletion of miRNAs in mice by TALEN system. 2013 , 8, e76004	33
265	Molecular dynamics simulations of DNA-free and DNA-bound TAL effectors. 2013 , 8, e76045	34
264	Inheritable and precise large genomic deletions of non-coding RNA genes in zebrafish using TALENs. 2013 , 8, e76387	48
263	TALE-PvuII fusion proteinsnovel tools for gene targeting. 2013 , 8, e82539	16
262	Tandem repeat modification during double-strand break repair induced by an engineered TAL effector nuclease in zebrafish genome. 2013 , 8, e84176	15
261	A modified TALEN-based strategy for rapidly and efficiently generating knockout mice for kidney development studies. 2014 , 9, e84893	13
260	Cell-penetrating peptide-mediated delivery of TALEN proteins via bioconjugation for genome engineering. 2014 , 9, e85755	109
259	Generation of TALEN-mediated GRdim knock-in rats by homologous recombination. 2014 , 9, e88146	31
258	True-breeding targeted gene knock-out in barley using designer TALE-nuclease in haploid cells. 2014 , 9, e92046	77
257	Precise gene modification mediated by TALEN and single-stranded oligodeoxynucleotides in human cells. 2014 , 9, e93575	20
256	Targeted genome editing of sweet orange using Cas9/sgRNA. 2014 , 9, e93806	296
255	Highly specific contractions of a single CAG/CTG trinucleotide repeat by TALEN in yeast. 2014 , 9, e95611	41
254	Genome editing using TALENs in blind Mexican Cavefish, Astyanax mexicanus. 2015, 10, e0119370	41
253	Refined requirements for protein regions important for activity of the TALE AvrBs3. 2015 , 10, e0120214	24
252	Efficient fdCas9 Synthetic Endonuclease with Improved Specificity for Precise Genome Engineering. 2015 , 10, e0133373	42
251	CRISPR/Cas9 Promotes Functional Study of Testis Specific X-Linked Gene In Vivo. 2015 , 10, e0143148	8
250	Reactivation of Latent HIV-1 Expression by Engineered TALE Transcription Factors. 2016 , 11, e0150037	10
249	Dissection of TALE-dependent gene activation reveals that they induce transcription cooperatively and in both orientations. 2017 , 12, e0173580	12

248	No evidence of genome editing activity from Natronobacterium gregoryi Argonaute (NgAgo) in human cells. 2017 , 12, e0177444	20
247	From effectors to effectomes: Are functional studies of individual effectors enough to decipher plant pathogen infectious strategies?. 2020 , 16, e1009059	9
246	A One-Step System for Convenient and Flexible Assembly of Transcription Activator-Like Effector Nucleases (TALENs). 2016 , 39, 687-91	5
245	Applications of CRISPR/Cas9 for Gene Editing in Hereditary Movement Disorders. 2016 , 9, 136-43	13
244	Advances in genetic engineering of domestic animals. 2016 , 3, 1	4
243	Manipulation of prostate cancer metastasis by locus-specific modification of the CRMP4 promoter region using chimeric TALE DNA methyltransferase and demethylase. 2015 , 6, 10030-44	33
242	Forward and reverse mutagenesis in C. elegans. 2014 , 1-26	52
241	Yeni Nesil Genom D⊠enleme Teknikleri: ZFN, TALEN, CRISPR l ar ve Bitkilerde Kullan li n⊞111-111	2
240	An Overview of Computational Tools of Nucleic Acid Binding Site Prediction for Site-specific Proteins and Nucleases. 2020 , 27, 370-384	О
239	Designer Nucleases: Gene-Editing Therapies using CCR5 as an Emerging Target in HIV. 2019 , 17, 306-323	6
238	Non-Viral Vectors for Gene Delivery. 2018 , 9, 4-11	7
237	genome editing thrives with diversified CRISPR technologies. 2018 , 39, 58-71	8
236	The advances and challenges of Gene Therapy for Duchenne Muscular Dystrophy. 2017, 1, 019-036	3
235	A plethora of virulence strategies hidden behind nuclear targeting of microbial effectors. <i>Frontiers</i> in <i>Plant Science</i> , 2011 , 2, 104	25
234	Virus-Like Particle Mediated CRISPR/Cas9 Delivery for Efficient and Safe Genome Editing. <i>Life</i> , 2020 , 10,	10
233	Evidence of coastal dune mobility increases over the last half century in response to historical human intervention. 2016 , 80, 261-272	3
232	Human induced pluripotent stem cells for monogenic disease modelling and therapy. 2016 , 8, 118-35	20
231	Recent advances in developing molecular tools for targeted genome engineering of mammalian cells. 2015 , 48, 6-12	3

230	Gene editing for corneal disease management. 2016 , 5, 1	2
229	Targeted Editing of Myostatin Gene in Sheep by Transcription Activator-like Effector Nucleases. 2016 , 29, 413-8	9
228	A host basal transcription factor is a key component for infection of rice by TALE-carrying bacteria. 2016 , 5,	72
227	Functional instability allows access to DNA in longer transcription Activator-Like effector (TALE) arrays. 2019 , 8,	6
226	Herpesviral lytic gene functions render the viral genome susceptible to novel editing by CRISPR/Cas9. 2019 , 8,	19
225	Galaxy tools and workflows for sequence analysis with applications in molecular plant pathology. 2013 , 1, e167	90
224	Pan-Genome Analysis of Effectors in Korean Strains of the Soybean Pathogen pv 2021, 9,	1
223	Highly efficient generation of canker resistant sweet orange enabled by an improved CRISPR/Cas9 system.	
222	TAL effectors with avirulence activity in African strains of Xanthomonas oryzae pv. oryzae.	
221	A transcription activator-like effector is trapped in nonhost plants for immunity 2022 , 3, 100249	1
220	Gene delivery strategies for therapeutic proteins production in plants: Emerging opportunities and challenges. 2021 , 54, 107845	2
219	Machine Learning Study of DNA Binding by Transcription Factors from the LacI Family. 2010 , 15-26	
218	Genetic Diversity of avrBs-like Genes in Three Different Xanthomonas Species Isolated in Korea. 2011 , 27, 26-32	2
217	Recent Findings in Plant Innate Immunity and Possible Impacts on Crop Dis-ease-resistance Breeding. 2011 , 37, 935-942	1
216	New Gene Therapy Strategies for the Deletion of Exon 44 of Dystrophin Gene Based on Gene Editing by TALENs. 2013 , 03, 1-6	
215	Genetic Engineering. 2014 , 393-407	1
214	Highly Efficient Targeted Gene Disruption in the Silkworm, Bombyx mori, Using Genome Editing Tools. 2015 , 81-96	
213	Editing Cultured Human Cells: From Cell Lines to iPS Cells. 2015 , 45-69	1

Methods, Principles and Application of Gene Editing. 2015, 05, 32-41

211	Pre-clinical Modelling of Chromosomal Translocations and Inversions. 2015 , 429-445	
210	Cut and paste the genome: Genome editing for research and therapy. 2015 , 1, 95-106	0
209	The necessity for functional analysis in human medical genetics. 2015 , 2,	1
208	GeneKnockout by Targeted Mutagenesis in a Hemimetabolous Insect, the Two-Spotted Cricket Gryllus bimaculatus, using TALENs. 2016 , 1338, 143-55	1
207	Genome Editing in Human Pluripotent Stem Cells. 2016 , 43-67	
206	A New Approach to Dissect Nuclear Organization: TALE-Mediated Genome Visualization (TGV). 2016 , 1338, 89-97	1
205	Exploiting the sequence diversity of TALE-like repeats to vary the strength of dTALE-promoter interactions.	
204	Locus-specific ChIP combined with NGS analysis reveals genomic regulatory regions that physically interact with thePax5promoter in a chicken B cell line.	
203	Designer Effectors for Editing and Regulating Complex Genomes. 2017 , 137-157	
202	Generation of dTALEs and Libraries of Synthetic TALE-Activated Promoters for Engineering of Gene Regulatory Networks in Plants. 2017 , 1629, 185-204	1
201	Targeted Mutagenesis, Mouse ?. 2017 ,	
200	CRISPR/Cas9-mediated Knock-in of an Optimized TetO Repeat for Live Cell Imaging of Endogenous Loci.	1
199	Regulatory Dysfunction inhibits the Development and Application of Transgenic Livestock for Use in Agriculture. 2018 , 149-167	1
198	Functional instability allows access to DNA in longer Transcription Activator-Like Effector (TALE) arrays.	_
197	Strengthening the competitiveness of agricultural biotechnology through practical application of gene editing technology. 2018 , 45, 155-170	5
196	Applications of Genome Engineering/Editing Tools in Plants. 2019 , 143-165	0
195	Transgenic Mice. 2019 , 1-8	

194	PrediTALE: A novel model learned from quantitative data allows for new perspectives on TALE targeting.	
193	CAMIO for deletion analysis of endogenous DNA sequences in multicellular organisms.	
192	An efficient method to clone TAL effector genes fromXanthomonas oryzaeusing Gibson assembly.	
191	Current Status of New Plant Breeding Technologies and Crop Development. 2019 , 51, 161-174	Ο
190	COMET: A toolkit for composing customizable genetic programs in mammalian cells.	1
189	Generating Mutant Renal Cell Lines Using CRISPR Technologies. 2020 , 2067, 323-340	O
188	CRISPR/Cas9 Gene Targeting in Primary Mouse Bone Marrow-Derived Macrophages. 2020, 2097, 223-230	2
187	Design and Application of DNA Modification-Specific Transcription-Activator-Like Effectors. 2021 , 2198, 381-399	
186	Assembly of TALEN and mTALE-Act for Plant Genome Engineering. 2021, 2264, 207-218	0
185	Mammalian Synbio Sensors. 2020 , 1-21	
184	Genome Editing by Targeted Nucleases and the CRISPR/Cas Revolution. 2020, 953-964	1
183	Genome Editing of Mammalian Cells Using CRISPR-Cas: From In Silico Designing to In-Culture Validation. 2020 , 143-162	
182	Gene Editing. 2020 , 147-164	
181	A brief review of genome editing technology for generating animal models. 2020 , 7, 123	1
180	CRISPR/Cas9-based genome editing, with focus on transcription factors, for plant improvement. 2020 , 63-84	
179	Simple and Rapid Assembly of TALE Modules Based on the Degeneracy of the Codons and Trimer Repeats. 2021 , 12,	O
178	CARMIL3 is important for cell migration and morphogenesis during early development in zebrafish.	
177	TALEN and CRISPR/Cas Genome Editing Systems: Tools of Discovery. 2014 , 6, 19-40	62

176	The CRISPR/Cas9 system for gene editing and its potential application in pain research. 2016 , 1, 22-33	11
175	Editing the Neuronal Genome: a CRISPR View of Chromatin Regulation in Neuronal Development, Function, and Plasticity. 2016 , 89, 457-470	3
174	Genome Editing: Past, Present, and Future. 2017 , 90, 653-659	40
173	Science and Bioethics of CRISPR-Cas9 Gene Editing: An Analysis Towards Separating Facts and Fiction. 2017 , 90, 625-634	14
172	[Application Progress of CRISPR/Cas9 System for Gene Editing in Tumor Research]. 2015, 18, 571-9	
171	Production of Recombinant Proteins in the Milk of Transgenic Animals: Current State and Prospects. 2018 , 10, 40-47	4
170	Targeted genome editing by CRISPR/Cas9 for livestock improvement. 2022, 415-447	
169	High-oleic oils: Future developments and technologies. 2022 , 143-188	
168	CRISPR/Cas System and Factors Affecting Its Precision and Efficiency 2021 , 9, 761709	0
167	CRISPR-Cas Technology: Emerging Applications in Clinical Microbiology and Infectious Diseases. 2021 , 14,	2
166	The rice OsERF101 transcription factor regulates the NLR Xa1-mediated perception of TAL effectors and Xa1-mediated immunity.	0
165	Potentials, prospects and applications of genome editing technologies in livestock production 2022 , 29, 1928-1935	3
164	Enhancement of Agricultural Crops: A CRISPR/Cas9-Based Approach.	
163	Encyclopedia of Gerontology and Population Aging. 2021 , 5197-5204	
162	Potato improvement through genetic engineering 2021 , 12, 479-496	2
161	Disease Resistance Breeding with Genomic Tools in Zucchini (Cucurbita pepo L.). 2021 , 407-422	1
160	Gene Editing Technology for Fish Health Management. 2021 , 101-122	
159	An atypical class of non-coding small RNAs is produced in rice leaves upon bacterial infection 2021 , 11, 24141	2

158	The Role of Recombinant AAV in Precise Genome Editing Frontiers in Genome Editing, 2021, 3, 799722	2.5	1
157	CRISPR-based genome editing through the lens of DNA repair 2022 , 82, 348-388		5
156	An Introduction to Genome Editing Techniques. 2022 , 1-28		
155	Recent developments in genome design and assembly tools. 2022 , 45-65		
154	CRISPR-CAS mediated transcriptional control and epi-mutagenesis 2022,		1
153	Plant Executor Genes International Journal of Molecular Sciences, 2022, 23,	6.3	1
152	A varied AvrXa23-like TALE enables the bacterial blight pathogen to avoid being trapped by Xa23 resistance gene in rice. 2022 ,		1
151	Tools for engineering resistance against pathogens in plants. 1		1
150	Flexible TALEs for an expanded use in gene activation, virulence and scaffold engineering 2022,		
149	Protocol: A Multiplexed Reporter Assay to Study Effects of Chromatin Context on DNA Double-Strand Break Repair 2021 , 12, 785947		
148	Advances in Modeling Polyglutamine Diseases Using Genome Editing Tools 2022, 11,		О
147	TAL Effectors with Avirulence Activity in African Strains of Xanthomonas oryzae pv. oryzae 2022 , 15, 9		
146	Plant immunity: Rice XA21-mediated resistance to bacterial infection 2022 , 119,		1
145	Physicochemical and Functional Characterization of Differential CRISPR-Cas9 Ribonucleoprotein Complexes 2021 ,		0
144	Highly Efficient Generation of Canker-Resistant Sweet Orange Enabled by an Improved CRISPR/Cas9 System <i>Frontiers in Plant Science</i> , 2021 , 12, 769907	6.2	3
143	Target-specific gene delivery in plant systems and their expression: Insights into recent developments. 2020 , 45,		2
142	Developing Non-Human Primate Models of Inherited Retinal Diseases 2022 , 13,		
141	Ligation-assisted homologous recombination enables precise genome editing by deploying both MMEJ and HDR 2022 ,		Ο

140	Recent Advances in the Production of Genome-Edited Rats <i>International Journal of Molecular Sciences</i> , 2022 , 23,	1
139	Precision Genome Editing Toolbox: Applications and Approaches for Improving Rice Genetic Resistance to Pathogens. 2022 , 12, 565	3
138	Historical Overview of Genome Editing from Bacteria to Higher Eukaryotes. 2022, 9-17	
137	Genome Editing in Drug Discovery. 2022 , 3-7	
136	Diversity of transcription activator-like effectors and pathogenicity in strains of Xanthomonas oryzae pv. oryzicola from Yunnan 2022 , 38, 71	
135	Complete Genome Resource of a Commonly Used Laboratory Substrain of pv. PXO99 2022 , PDIS10212176A	
134	TALEs as double-edged swords in plant-pathogen interactions: Progress, challenges, and perspectives 2022 , 3, 100318	1
133	Genetic Engineering Technologies for Improving Crop Yield and Quality. 2022 , 12, 759	О
132	Genetically modified rabbit models for cardiovascular medicine 2022, 174890	1
131	RGEN-seq for highly sensitive amplification-free screen of off-target sites of gene editors. 2021 , 11, 23600	
130	Epigenetic features improve TALE target prediction 2021 , 22, 914	
129	TALE.Sense: A Versatile DNA Sensor Platform for Live Mammalian Cells 2021,	
128	Gene editing and its applications in biomedicine 2022, 65, 660	3
127	Lignin: Possible Manipulations in Forages. 2022 , 493-527	
126	Developing CRISPR/Cas9-Mediated Fluorescent Reporter Human Pluripotent Stem-Cell Lines for High-Content Screening 2022 , 27,	0
125	Genome-wide functional perturbation of human microsatellite repeats using engineered zinc finger transcription factors. 2022 , 2, 100119	2
124	A rice protein interaction network reveals high centrality nodes and candidate pathogen effector targets 2022 , 20, 2001-2012	1
123	Table_1.pdf. 2020 ,	

(2019-2018)

Image_1.PDF. 2018, 122 Image_2.PDF. 2018, Image_3.PDF. 2018, 120 Image_4.TIFF. 2018, 119 118 Image_5.PDF. 2018, Image_6.PDF. 2018, 117 116 Image_7.PDF. 2018, Image_8.PDF. 2018, 115 Image_9.PDF. 2018, 114 Table_1.XLSX. **2018**, 113 Data_Sheet_1.pdf. 2020, 112 Data_Sheet_1.doc. 2018, 111 110 Image_1.TIF. 2021, Table_1.XLSX. 2021, 109 Table_1.DOC. 2018, 108 107 Presentation_1.pdf. 2018, Data_Sheet_1.docx. 2019, 106 Data_Sheet_2.xls. 2019, 105

104	lmage_1.TIF. 2019 ,	
103	Image_2.tif. 2019 ,	
102	Image_3.tif. 2019 ,	
101	Image_4.tif. 2019 ,	
100	Image_5.tif. 2019 ,	
99	Image_6.tif. 2019 ,	
98	Image_7.tif. 2019 ,	
97	Table_1.DOCX. 2019 ,	
96	Table_2.XLSX. 2019 ,	
95	Table_3.XLSX. 2019 ,	
94	Schwerpunkte der Forschungspipelines. 2022 , 95-128	
93	Plant Hormones: Role in Alleviating Biotic Stress.	1
92	Role of CRISPR Technology in Gene Editing of Emerging and Re-emerging Vector Borne Disease.	
91	Cruciferous weed isolates of Xanthomonas campestris yield insight into pathovar genomic relationships and genetic determinants of host- and tissue-specificity 2022 ,	
90	Mitochondrial base editor induces substantial nuclear off-target mutations 2022,	5
89	Genetic Kidney Diseases (GKDs) Modeling Using Genome Editing Technologies 2022, 11,	
88	Genome editing and cancer: How far has research moved forward on CRISPR/Cas9?. 2022, 150, 113011	0
87	Comparative Genomic Analysis of Two pv. Strains Isolated From Low Land and High Mountain Paddies in Guangxi, China 2022 , 13, 867633	

86	The Rice ILI2 Locus Is a Bidirectional Target of the African Xanthomonas oryzae pv. oryzae Major Transcription Activator-like Effector TalC but Does Not Contribute to Disease Susceptibility. <i>International Journal of Molecular Sciences</i> , 2022 , 23, 5559	6.3	
85	Challenges Facing CRISPR/Cas9-Based Genome Editing in Plants. Frontiers in Plant Science, 2022, 13,	6.2	1
84	If Mendel Was Using CRISPR: Genome Editing Meets Non-Mendelian Inheritance. 2202585		
83	Tools for Efficient Genome Editing; ZFN, TALEN, and CRISPR. 2022 , 29-46		2
82	A single promoter-TALE system for tissue-specific and tuneable expression of multiple genes in rice.		0
81	Genome Editing and Human Pluripotent Stem Cell Technologies for in vitro Monogenic Diabetes Modeling. <i>Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy</i> , Volume 15, 1785-1797	3.4	
80	CRISPR/Cas9 a simple, inexpensive and effective technique for gene editing. <i>Molecular Biology Reports</i> ,	2.8	О
79	Application of CRISPR-Mediated Gene Editing for Crop Improvement. <i>Molecular Biotechnology</i> ,	3	2
78	The State-of-the-Art of Gene Editing and its Application to Viral Infections and Diseases Including COVID-19. <i>Frontiers in Cellular and Infection Microbiology</i> , 12,	5.9	0
77	Development of Designer Transcription Activator-Like Effector-Based Plant Growth Regulator for Higher Yield in Rice. <i>Frontiers in Plant Science</i> , 13,	6.2	
76	Ectopic Expression of Executor Gene Xa23 Enhances Resistance to Both Bacterial and Fungal Diseases in Rice. <i>International Journal of Molecular Sciences</i> , 2022 , 23, 6545	6.3	
75	Principles and Practices of Genome Editing in Crop Plants. 2022 , 1-21		
74	Cisgenesis in the Era of Genome Editing and Modern Plant Biotechnology. <i>Concepts and Strategies in Plant Sciences</i> , 2022 , 257-279	0.5	1
73	Genetic transformation via plant tissue culture techniques: Current and future approaches. 2022, 131-	156	
72	Application of Gene Editing Technology in Resistance Breeding of Livestock. <i>Life</i> , 2022 , 12, 1070	3	0
71	Current landscape of gene-editing technology in biomedicine: Applications, advantages, challenges, and perspectives. <i>MedComm</i> , 2022 , 3,	2.2	O
70	Improvements of nuclease and nickase gene modification techniques for the treatment of genetic diseases. <i>Frontiers in Genome Editing</i> , 4,	2.5	1
69	HIV cure strategies: which ones are appropriate for Africa?. <i>Cellular and Molecular Life Sciences</i> , 2022 , 79,	10.3	0

68	An iterative gene editing strategy broadens eIF4E1 genetic diversity in Solanum lycopersicum and generates resistance to several potyvirus isolates.		
67	Histone Marks-Dependent Effect on Alternative Splicing: New Perspectives for Targeted Splicing Modulation in Cancer?. <i>International Journal of Molecular Sciences</i> , 2022 , 23, 8304	6.3	1
66	A glance at the application of CRISPR/Cas9 gene-editing technology in cardiovascular diseases. 2022 , 14, 77-83		
65	Understanding floral biology for CRISPR-based modification of color and fragrance in horticultural plants. 11, 854		O
64	Genome editing for primary immunodeficiencies: A therapeutic perspective on Wiskott-Aldrich syndrome. 13,		
63	Assembling highly repetitive Xanthomonas TALomes using Oxford Nanopore sequencing.		
62	New Advances in Using Virus-like Particles and Related Technologies for Eukaryotic Genome Editing Delivery. 2022 , 23, 8750		
61	Sparking a sulfur war between plants and pathogens. 2022 ,		1
60	Precise somatic genome editing for treatment of inborn errors of immunity. 13,		
59	Modulating Mitochondrial DNA Heteroplasmy with Mitochondrially Targeted Endonucleases.		O
58	The rice OsERF101 transcription factor regulates the NLR Xa1-mediated immunity induced by perception of TAL effectors.		0
57	Magnaporthe oryzae encoded effector protein AvrPi54 interacts in vivo with rice encoded cognate resistance protein Pi54 at the host plasma membrane.		O
56	The effect of siderophore virulence genes entB and ybtS on the virulence of Carbapenem-resistant Klebsiella pneumoniae. 2022 , 171, 105746		1
55	CRISPR©as9: current and future utilities in ocular diseases. 2022 , 615-623		O
54	CRISPR Genome Editing Brings Global Food Security into the First Lane: Enhancing Nutrition and Stress Resilience in Crops. 2022 , 285-344		0
53	Next-Generation Mice Genetics for Circadian Studies. 2022 , 359-376		O
52	Genome Editing Tools for Food Security. 2022 , 45-65		0
51	Xenotransplantation: The Contribution of CRISPR/Cas9 Gene Editing Technology.		O

50	Prokaryotic Argonaute Proteins as a Tool for Biotechnology.	O
49	Advancement in the Breeding, Biotechnological and Genomic Tools towards Development of Durable Genetic Resistance against the Rice Blast Disease. 2022 , 11, 2386	2
48	Genome dynamics mediated by repetitive and mobile elements in Xanthomonas citri pv. durantae. 2022 , 4,	O
47	CRISPR/Cas9: A revolutionary genome editing tool for human cancers treatment. 2022 , 21, 15330338221132	0 o
46	Genome Editing advances in Soybean Improvement against Biotic and Abiotic Stresses. 2022 , 241-274	О
45	Transgenics and Crop Improvement. 2022 , 131-347	О
44	Genome editing technologies, mechanisms and improved production of therapeutic phytochemicals: Opportunities and prospects.	1
43	Gene editing hPSCs for modeling neurological disorders. 2023 , 289-311	O
42	Genome Editing: A Review of the Challenges and Approaches. 2022, 71-101	O
41	Site-specific genome editing in treatment of inherited diseases: possibility, progress, and perspectives. 2022 ,	O
40	The Dynamic Transcription Activator -Like Effector Family of Xanthomonas.	О
39	Genetic Enhancement: a New Avenue to Combat Aging-related Diseases.	O
38	Visualizing the Genome: Experimental Approaches for Live-Cell Chromatin Imaging. 2022 , 11, 4086	O
37	Epigenetic Manipulation of Transposable and Repetitive Elements. 2023, 355-368	O
36	TALE-induced immunity against the bacterial blight pathogen Xanthomonas oryzae pv. oryzae in rice. 2022 , 4,	О
35	Genome Editing and Pathological Cardiac Hypertrophy. 2023 , 87-101	O
34	Development of a Transcriptional Activator-Like Effector Protein to Accurately Discriminate Single Nucleotide Difference.	О
33	Background: Genome Editing with Programmable Nucleases. 2023 , 17-50	O

32	Engineered Agrobacterium improves transformation by mitigating plant immunity detection.	О
31	Hematopoietic stem and progenitors cells gene editing: Beyond blood disorders. 4,	O
30	Constitutive and conditional gene knockout mice for the study of intervertebral disc degeneration: Current status, decision considerations, and future possibilities.	0
29	A CRISPR way for accelerating cereal crop improvement: Progress and challenges. 13,	1
28	Host Plant Resistance: An Eco-Friendly Approach for Crop Disease Management. 2021 , 395-449	0
27	Genome Editing in the Synthetic Biology for Sustainable Production of Biomolecules. 2023, 315-329	O
26	Functional genomics approaches for combating the abiotic stresses in wheat. 2023 , 209-232	0
25	Updated Overview of TALEN Construction Systems. 2023 , 27-39	O
24	Genome Editing Using CRISPR. 2023 , 1-26	0
23	Sequence-specific DNA labelling for fluorescence microscopy. 2023 , 230, 115256	O
23	Sequence-specific DNA labelling for fluorescence microscopy. 2023 , 230, 115256 Metabolic Engineering for High-Value Bioactive Compounds from Medicinal Plants. 2022 , 521-544	0
22	Metabolic Engineering for High-Value Bioactive Compounds from Medicinal Plants. 2022 , 521-544	О
22	Metabolic Engineering for High-Value Bioactive Compounds from Medicinal Plants. 2022 , 521-544 Genome Editing. 2021 , 287-297 CRISPRi in Xanthomonas demonstrates functional convergence of transcription activator-like	0
22 21 20	Metabolic Engineering for High-Value Bioactive Compounds from Medicinal Plants. 2022, 521-544 Genome Editing. 2021, 287-297 CRISPRi in Xanthomonas demonstrates functional convergence of transcription activator-like effectors in two divergent pathogens. 2023, 238, 1593-1604 Genome editing by introduction of Cas9/sgRNA into plant cells using temperature-controlled	0 0
22 21 20	Metabolic Engineering for High-Value Bioactive Compounds from Medicinal Plants. 2022, 521-544 Genome Editing. 2021, 287-297 CRISPRi in Xanthomonas demonstrates functional convergence of transcription activator-like effectors in two divergent pathogens. 2023, 238, 1593-1604 Genome editing by introduction of Cas9/sgRNA into plant cells using temperature-controlled atmospheric pressure plasma. 2023, 18, e0281767 T-CAST: An optimized CAST-Seq pipeline for TALEN confirms superior safety and efficacy of	o o o
22 21 20 19	Metabolic Engineering for High-Value Bioactive Compounds from Medicinal Plants. 2022, 521-544 Genome Editing. 2021, 287-297 CRISPRi in Xanthomonas demonstrates functional convergence of transcription activator-like effectors in two divergent pathogens. 2023, 238, 1593-1604 Genome editing by introduction of Cas9/sgRNA into plant cells using temperature-controlled atmospheric pressure plasma. 2023, 18, e0281767 T-CAST: An optimized CAST-Seq pipeline for TALEN confirms superior safety and efficacy of obligate-heterodimeric scaffolds. 5, CRISPR/Cas advancements for genome editing, diagnosis, therapeutics, and vaccine development	O O O

CITATION REPORT

14	Epigenetic Regulation of 眨lobin Genes and the Potential to Treat Hemoglobinopathies through Epigenome Editing. 2023 , 14, 577	О
13	Genome-Editing Tools for Flax Genetic Improvement. 2023 , 235-252	Ο
12	TALE-based C-to-T base editor for multiple homologous genes with flexible precision.	О
11	Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) in Cardiovascular Disease: A Comprehensive Clinical Review on Dilated Cardiomyopathy. 2023 ,	O
10	High-efficiency editing in hematopoietic stem cells and the HUDEP-2 cell line based on in vitro mRNA synthesis. 5,	0
9	Mitochondrial Base Editing: Recent Advances towards Therapeutic Opportunities. 2023 , 24, 5798	О
8	TALEN construction for porcine IB-gene and the detection of knockout activity. 2017 , 87,	0
7	Research and prospect of CRISPR system in marine biological system. 36, 132-138	O
6	Assembling highly repetitive Xanthomonas TALomes using Oxford Nanopore sequencing. 2023, 24,	О
5	Review: Recent Applications of Gene Editing in Fish Species and Aquatic Medicine. 2023 , 13, 1250	O
4	Screening Method for the Identification and Characterization of Transcription Factors Regulating Flesh Fruit Development and Ripening. 2023 , 17-61	0
3	CRISPR technology and its potential role in treating rare imprinting diseases. 2023 , 273-300	O
2	Application of new technologies in embryos: From gene editing to synthetic embryos. 2023, 853-886	0
1	Production of MSTN knockout porcine cells using adenine base-editing-mediated exon skipping.	O