Magdy M Mahfouz

List of Publications by Year
in descending order

88 papers	8,820 citations	53794 45 h-index	49909 87 g-index
98 all docs	98 docs citations	98 times ranked	8786 citing authors

#	Article	IF	Citations
1	RNA virus interference via CRISPR/Cas13a system in plants. Genome Biology, 2018, 19, 1.	8.8	1,148
2	Structural Basis for Sequence-Specific Recognition of DNA by TAL Effectors. Science, 2012, 335, 720-723.	12.6	528
3	CRISPR/Cas9-mediated viral interference in plants. Genome Biology, 2015, 16, 238.	8.8	406
4	De novo-engineered transcription activator-like effector (TALE) hybrid nuclease with novel DNA binding specificity creates double-strand breaks. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2623-2628.	7.1	388
5	Callose synthase (CalS5) is required for exine formation during microgametogenesis and for pollen viability in Arabidopsis. Plant Journal, 2005, 42, 315-328.	5.7	333
6	Arabidopsis TARGET OF RAPAMYCIN Interacts with RAPTOR, Which Regulates the Activity of S6 Kinase in Response to Osmotic Stress Signals. Plant Cell, 2006, 18, 477-490.	6.6	327
7	RNAâ€guided transcriptional regulation <i>in planta</i> via synthetic <scp>dC</scp>as9â€based transcription factors. Plant Biotechnology Journal, 2015, 13, 578-589.	8.3	308
8	Efficient Virus-Mediated Genome Editing in Plants Using the CRISPR/Cas9 System. Molecular Plant, 2015, 8, 1288-1291.	8.3	255
9	iSCAN: An RT-LAMP-coupled CRISPR-Cas12 module for rapid, sensitive detection of SARS-CoV-2. Virus Research, 2020, 288, 198129.	2.2	226
10	Nucleic Acid Detection Using CRISPR/Cas Biosensing Technologies. ACS Synthetic Biology, 2020, 9, 1226-1233.	3.8	226
11	CRISPR/Cas9-Mediated Immunity to Geminiviruses: Differential Interference and Evasion. Scientific Reports, 2016, 6, 26912.	3.3	189
12	CRISPR base editors: genome editing without double-stranded breaks. Biochemical Journal, 2018, 475, 1955-1964.	3.7	177
13	Engineering resistance against <i>Tomato yellow leaf curl virus</i> via the CRISPR/Cas9 system in tomato. Plant Signaling and Behavior, 2018, 13, e1525996.	2.4	161
14	Plant Genome Engineering for Targeted Improvement of Crop Traits. Frontiers in Plant Science, 2019, 10, 114.	3.6	149
15	Engineering herbicide resistance via prime editing in rice. Plant Biotechnology Journal, 2020, 18, 2370-2372.	8.3	142
16	Engineering Plant Immunity: Using CRISPR/Cas9 to Generate Virus Resistance. Frontiers in Plant Science, 2016, 7, 1673.	3.6	141
17	Targeted transcriptional repression using a chimeric TALE-SRDX repressor protein. Plant Molecular Biology, 2012, 78, 311-321.	3.9	136
18	New plant breeding technologies for food security. Science, 2019, 363, 1390-1391.	12.6	125

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19	CRISPR-Cpf1: A New Tool for Plant Genome Editing. Trends in Plant Science, 2017, 22, 550-553.	8.8	124
20	CRISPR-Cas13d mediates robust RNA virus interference in plants. Genome Biology, 2019, 20, 263.	8.8	124
21	Thermopriming triggers splicing memory in Arabidopsis. Journal of Experimental Botany, 2018, 69, 2659-2675.	4.8	119
22	Recognition of methylated DNA by TAL effectors. Cell Research, 2012, 22, 1502-1504.	12.0	113
23	Genome engineering via TALENs and CRISPR/Cas9 systems: challenges and perspectives. Plant Biotechnology Journal, 2014, 12, 1006-1014.	8.3	110
24	Efficient CRISPR/Cas9-Mediated Genome Editing Using a Chimeric Single-Guide RNA Molecule. Frontiers in Plant Science, 2017, 8, 1441.	3.6	107
25	Engineering plant architecture via CRISPR/Cas9-mediated alteration of strigolactone biosynthesis. BMC Plant Biology, 2018, 18, 174.	3.6	106
26	Rapid and highly efficient construction of TALE-based transcriptional regulators and nucleases for genome modification. Plant Molecular Biology, 2012, 78, 407-416.	3.9	103
27	Pea early-browning virus-mediated genome editing via the CRISPR/Cas9 system in Nicotiana benthamiana and Arabidopsis. Virus Research, 2018, 244, 333-337.	2.2	102
28	Engineering crops of the future: CRISPR approaches to develop climate-resilient and disease-resistant plants. Genome Biology, 2020, 21, 289.	8.8	102
29	CRISPR directed evolution of the spliceosome for resistance to splicing inhibitors. Genome Biology, 2019, 20, 73.	8.8	99
30	Wheat chromatin architecture is organized in genome territories and transcription factories. Genome Biology, 2020, 21, 104.	8.8	99
31	Efficient, Rapid, and Sensitive Detection of Plant RNA Viruses With One-Pot RT-RPAâ€"CRISPR/Cas12a Assay. Frontiers in Microbiology, 2020, 11, 610872.	3.5	94
32	Fusion of the Cas9 endonuclease and the VirD2 relaxase facilitates homology-directed repair for precise genome engineering in rice. Communications Biology, 2020, 3, 44.	4.4	91
33	Harnessing CRISPR/Cas systems for programmable transcriptional and post-transcriptional regulation. Biotechnology Advances, 2018, 36, 295-310.	11.7	87
34	Engineering RNA Virus Interference via the CRISPR/Cas13 Machinery in Arabidopsis. Viruses, 2018, 10, 732.	3.3	75
35	Genome editing: the road of CRISPR/Cas9 from bench to clinic. Experimental and Molecular Medicine, 2016, 48, e265-e265.	7.7	74
36	Cupredoxinâ^'Cancer Interrelationship:â€‰ Azurin Binding with EphB2, Interference in EphB2 Tyrosine Phosphorylation, and Inhibition of Cancer Growth. Biochemistry, 2007, 46, 1799-1810.	2.5	68

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37	Preâ€<scp>mRNA</scp> splicing repression triggers abiotic stress signaling in plants. Plant Journal, 2017, 89, 291-309.	5.7	68
38	Thermopriming reprograms metabolic homeostasis to confer heat tolerance. Scientific Reports, 2019, 9, 181.	3.3	67
39	CRISPR/Cas13 as a Tool for RNA Interference. Trends in Plant Science, 2018, 23, 374-378.	8.8	64
40	LAMP-Coupled CRISPRâ€“Cas12a Module for Rapid and Sensitive Detection of Plant DNA Viruses. Viruses, 2021, 13, 466.	3.3	62
41	Activity and specificity of TRV-mediated gene editing in plants. Plant Signaling and Behavior, 2015, 10, e1044191.	2.4	59
42	Engineering Plants for Geminivirus Resistance with CRISPR/Cas9 System. Trends in Plant Science, 2016, 21, 279-281.	8.8	59
43	Characterization and DNA-Binding Specificities of Ralstonia TAL-Like Effectors. Molecular Plant, 2013, 6, 1318-1330.	8.3	53
44	The Arabidopsis SWI/SNF protein BAF60 mediates seedling growth control by modulating DNA accessibility. Genome Biology, 2017, 18, 114.	8.8	53
45	Engineering virus resistance via CRISPRâ€“Cas systems. Current Opinion in Virology, 2018, 32, 1-8.	5.4	53
46	Vigilant: An Engineered VirD2-Cas9 Complex for Lateral Flow Assay-Based Detection of SARS-CoV2. Nano Letters, 2021, 21, 3596-3603.	9.1	52
47	Pre-mRNA alternative splicing as a modulator for heat stress response in plants. Trends in Plant Science, 2021, 26, 1153-1170.	8.8	52
48	High efficiency of targeted mutagenesis in arabidopsis via meiotic promoter-driven expression of Cas9 endonuclease. Plant Cell Reports, 2016, 35, 1555-1558.	5.6	51
49	Genome Editing Technologies for Rice Improvement: Progress, Prospects, and Safety Concerns. Frontiers in Genome Editing, 2020, 2, 5.	5.2	51
50	CRISPR-Based Crop Improvements: A Way Forward to Achieve Zero Hunger. Journal of Agricultural and Food Chemistry, 2021, 69, 8307-8323.	5.2	50
51	Bio-SCAN: A CRISPR/dCas9-Based Lateral Flow Assay for Rapid, Specific, and Sensitive Detection of SARS-CoV-2. ACS Synthetic Biology, 2022, 11, 406-419.	3.8	48
52	TALE nucleases and next generation GM crops. GM Crops, 2011, 2, 99-103.	1.9	46
53	Efficient fdCas9 Synthetic Endonuclease with Improved Specificity for Precise Genome Engineering. PLoS ONE, 2015, 10, e0133373.	2.5	46
54	GCN5 modulates salicylic acid homeostasis by regulating H3K14ac levels at the 5â€² and 3â€² ends of its target genes. Nucleic Acids Research, 2020, 48, 5953-5966.	14.5	44

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55	Activities and specificities of homodimeric TALENs in SaccharomycesÂcerevisiae. Current Genetics, 2014, 60, 61-74.	1.7	39
56	Polycomb-dependent differential chromatin compartmentalization determines gene coregulation in <i>Arabidopsis</i>. Genome Research, 2021, 31, 1230-1244.	5.5	36
57	RNA-directed DNA methylation. Plant Signaling and Behavior, 2010, 5, 806-816.	2.4	34
58	CRISPR-Based Directed Evolution for Crop Improvement. Trends in Biotechnology, 2020, 38, 236-240.	9.3	34
59	A Novel Miniature CRISPR-Cas13 System for SARS-CoV-2 Diagnostics. ACS Synthetic Biology, 2021, 10, 2541-2551.	3.8	34
60	Characterization of a thermostable Cas13 enzyme for one-pot detection of SARS-CoV-2. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	33
61	Herboxidiene triggers splicing repression and abiotic stress responses in plants. BMC Genomics, 2017, 18, 260.	2.8	31
62	Genome editing: The efficient tool CRISPRâ€“Cpf1. Nature Plants, 2017, 3, 17028.	9.3	29
63	Serine/Arginine-rich protein family of splicing regulators: New approaches to study splice isoform functions. Plant Science, 2019, 283, 127-134.	3.6	27
64	Bacterial proteins and CpG-rich extrachromosomal DNA in potential cancer therapy. Plasmid, 2007, 57, 4-17.	1.4	25
65	Development of Cas12a-Based Cell-Free Small-Molecule Biosensors via Allosteric Regulation of CRISPR Array Expression. Analytical Chemistry, 2022, 94, 4617-4626.	6.5	25
66	Onsite detection of plant viruses using isothermal amplification assays. Plant Biotechnology Journal, 2022, 20, 1859-1873.	8.3	25
67	iSCAN-V2: A One-Pot RT-RPAâ€“CRISPR/Cas12b Assay for Point-of-Care SARS-CoV-2 Detection. Frontiers in Bioengineering and Biotechnology, 2021, 9, 800104.	4.1	24
68	Transcription activator-like effector nucleases mediated metabolic engineering for enhanced fatty acids production in Saccharomyces cerevisiae. Journal of Bioscience and Bioengineering, 2015, 120, 364-371.	2.2	23
69	Multiplex CRISPR Mutagenesis of the Serine/Arginine-Rich (SR) Gene Family in Rice. Genes, 2019, 10, 596.	2.4	23
70	Targeted genome regulation via synthetic programmable transcriptional regulators. Critical Reviews in Biotechnology, 2017, 37, 429-440.	9.0	22
71	Next-generation precision genome engineering and plant biotechnology. Plant Cell Reports, 2016, 35, 1397-1399.	5.6	19
72	CRISPR-TSKO: A Tool for Tissue-Specific Genome Editing in Plants. Trends in Plant Science, 2020, 25, 123-126.	8.8	19

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73	Virus-Mediated Genome Editing in Plants Using the CRISPR/Cas9 System. Methods in Molecular Biology, 2019, 1917, 311-326.	0.9	16
74	DNAâ€"Carbon Nanotube Binding Mode Determines the Efficiency of Carbon Nanotube-Mediated DNA Delivery to Intact Plants. ACS Applied Nano Materials, 2022, 5, 4663-4676.	5.0	16
75	Detection of a Usp-like gene in Calotropis procera plant from the de novo assembled genome contigs of the high-throughput sequencing dataset. Comptes Rendus - Biologies, 2014, 337, 86-94.	0.2	15
76	CRISPR/Cas9 Mutagenesis by Translocation of Cas9 Protein Into Plant Cells via the Agrobacterium Type IV Secretion System. Frontiers in Genome Editing, 2020, 2, 6.	5.2	14
77	The Rice Serine/Arginine Splicing Factor RS33 Regulates Pre-mRNA Splicing during Abiotic Stress Responses. Cells, 2022, 11, 1796.	4.1	14
78	CRISPR/Cas systems versus plant viruses: engineering plant immunity and beyond. Plant Physiology, 2021, 186, 1770-1785.	4.8	13
79	Synthetic directed evolution in plants: unlocking trait engineering and improvement. Synthetic Biology, 2021, 6, ysab025.	2.2	13
80	Engineering Molecular Immunity Against Plant Viruses. Progress in Molecular Biology and Translational Science, 2017, 149, 167-186.	1.7	12
81	CRISPR/Cas9-mediated target validation of the splicing inhibitor Pladienolide B. Biochimie Open, 2016, 3, 72-75.	3.2	11
82	Microbial Biocontainment Systems for Clinical, Agricultural, and Industrial Applications. Frontiers in Bioengineering and Biotechnology, 2022, 10, 830200.	4.1	9
83	Overlapping roles of spliceosomal components SF3B1 and PHF5A in rice splicing regulation. Communications Biology, 2021, 4, 529.	4.4	8
84	The Anticancer Activity of the N-Terminal CARD-Like Domain of Arginine Deiminase (ADI) from Pseudomonas aeruginosa. Letters in Drug Design and Discovery, 2009, 6, 403-412.	0.7	5
85	A Simplified Method to Engineer CRISPR/Cas9-Mediated Geminivirus Resistance in Plants. Methods in Molecular Biology, 2019, 2028, 167-183.	0.9	5
86	Plant genome engineering from lab to fieldâ€"a Keystone Symposia report. Annals of the New York Academy of Sciences, 2021, 1506, 35-54.	3.8	4
87	Chemical activation of Arabidopsis SnRK2.6 by pladienolide B. Plant Signaling and Behavior, 2021, 16, 1885165.	2.4	1
88	CS-Cells: A CRISPR-Cas12 DNA Device to Generate Chromosome-Shredded Cells for Efficient and Safe Molecular Biomanufacturing. ACS Synthetic Biology, 2022, 11, 430-440.	3.8	1