

Magdy M Mahfouz

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

8,820
citations

53660

45
h-index

49773

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. <i>Genome Biology</i> , 2018, 19, 1.	3.8	1,148
2	Structural Basis for Sequence-Specific Recognition of DNA by TAL Effectors. <i>Science</i> , 2012, 335, 720-723.	6.0	528
3	CRISPR/Cas9-mediated viral interference in plants. <i>Genome Biology</i> , 2015, 16, 238.	3.8	406
4	De novo-engineered transcription activator-like effector (TALE) hybrid nuclease with novel DNA binding specificity creates double-strand breaks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 2623-2628.	3.3	388
5	Callose synthase (CalS5) is required for exine formation during microgametogenesis and for pollen viability in <i>Arabidopsis</i> . <i>Plant Journal</i> , 2005, 42, 315-328.	2.8	333
6	<i>Arabidopsis</i> TARGET OF RAPAMYCIN Interacts with RAPTOR, Which Regulates the Activity of S6 Kinase in Response to Osmotic Stress Signals. <i>Plant Cell</i> , 2006, 18, 477-490.	3.1	327
7	RNA-guided transcriptional regulation <i>in planta</i> via synthetic Cas9-based transcription factors. <i>Plant Biotechnology Journal</i> , 2015, 13, 578-589.	4.1	308
8	Efficient Virus-Mediated Genome Editing in Plants Using the CRISPR/Cas9 System. <i>Molecular Plant</i> , 2015, 8, 1288-1291.	3.9	255
9	iSCAN: An RT-LAMP-coupled CRISPR-Cas12 module for rapid, sensitive detection of SARS-CoV-2. <i>Virus Research</i> , 2020, 288, 198129.	1.1	226
10	Nucleic Acid Detection Using CRISPR/Cas Biosensing Technologies. <i>ACS Synthetic Biology</i> , 2020, 9, 1226-1233.	1.9	226
11	CRISPR/Cas9-Mediated Immunity to Geminiviruses: Differential Interference and Evasion. <i>Scientific Reports</i> , 2016, 6, 26912.	1.6	189
12	CRISPR base editors: genome editing without double-stranded breaks. <i>Biochemical Journal</i> , 2018, 475, 1955-1964.	1.7	177
13	Engineering resistance against <i>Tomato yellow leaf curl virus</i> via the CRISPR/Cas9 system in tomato. <i>Plant Signaling and Behavior</i> , 2018, 13, e1525996.	1.2	161
14	Plant Genome Engineering for Targeted Improvement of Crop Traits. <i>Frontiers in Plant Science</i> , 2019, 10, 114.	1.7	149
15	Engineering herbicide resistance via prime editing in rice. <i>Plant Biotechnology Journal</i> , 2020, 18, 2370-2372.	4.1	142
16	Engineering Plant Immunity: Using CRISPR/Cas9 to Generate Virus Resistance. <i>Frontiers in Plant Science</i> , 2016, 7, 1673.	1.7	141
17	Targeted transcriptional repression using a chimeric TALE-SRDX repressor protein. <i>Plant Molecular Biology</i> , 2012, 78, 311-321.	2.0	136
18	New plant breeding technologies for food security. <i>Science</i> , 2019, 363, 1390-1391.	6.0	125

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19	CRISPR-Cpf1: A New Tool for Plant Genome Editing. <i>Trends in Plant Science</i> , 2017, 22, 550-553.	4.3	124
20	CRISPR-Cas13d mediates robust RNA virus interference in plants. <i>Genome Biology</i> , 2019, 20, 263.	3.8	124
21	Thermopriming triggers splicing memory in Arabidopsis. <i>Journal of Experimental Botany</i> , 2018, 69, 2659-2675.	2.4	119
22	Recognition of methylated DNA by TAL effectors. <i>Cell Research</i> , 2012, 22, 1502-1504.	5.7	113
23	Genome engineering via TALENs and CRISPR/Cas9 systems: challenges and perspectives. <i>Plant Biotechnology Journal</i> , 2014, 12, 1006-1014.	4.1	110
24	Efficient CRISPR/Cas9-Mediated Genome Editing Using a Chimeric Single-Guide RNA Molecule. <i>Frontiers in Plant Science</i> , 2017, 8, 1441.	1.7	107
25	Engineering plant architecture via CRISPR/Cas9-mediated alteration of strigolactone biosynthesis. <i>BMC Plant Biology</i> , 2018, 18, 174.	1.6	106
26	Rapid and highly efficient construction of TALE-based transcriptional regulators and nucleases for genome modification. <i>Plant Molecular Biology</i> , 2012, 78, 407-416.	2.0	103
27	Pea early-browning virus-mediated genome editing via the CRISPR/Cas9 system in <i>Nicotiana benthamiana</i> and <i>Arabidopsis</i> . <i>Virus Research</i> , 2018, 244, 333-337.	1.1	102
28	Engineering crops of the future: CRISPR approaches to develop climate-resilient and disease-resistant plants. <i>Genome Biology</i> , 2020, 21, 289.	3.8	102
29	CRISPR directed evolution of the spliceosome for resistance to splicing inhibitors. <i>Genome Biology</i> , 2019, 20, 73.	3.8	99
30	Wheat chromatin architecture is organized in genome territories and transcription factories. <i>Genome Biology</i> , 2020, 21, 104.	3.8	99
31	Efficient, Rapid, and Sensitive Detection of Plant RNA Viruses With One-Pot RT-RPA-â€“CRISPR/Cas12a Assay. <i>Frontiers in Microbiology</i> , 2020, 11, 610872.	1.5	94
32	Fusion of the Cas9 endonuclease and the VirD2 relaxase facilitates homology-directed repair for precise genome engineering in rice. <i>Communications Biology</i> , 2020, 3, 44.	2.0	91
33	Harnessing CRISPR/Cas systems for programmable transcriptional and post-transcriptional regulation. <i>Biotechnology Advances</i> , 2018, 36, 295-310.	6.0	87
34	Engineering RNA Virus Interference via the CRISPR/Cas13 Machinery in Arabidopsis. <i>Viruses</i> , 2018, 10, 732.	1.5	75
35	Genome editing: the road of CRISPR/Cas9 from bench to clinic. <i>Experimental and Molecular Medicine</i> , 2016, 48, e265-e265.	3.2	74
36	Cupredoxin-â€“Cancer Interrelationship:â€“ Azurin Binding with EphB2, Interference in EphB2 Tyrosine Phosphorylation, and Inhibition of Cancer Growth. <i>Biochemistry</i> , 2007, 46, 1799-1810.	1.2	68

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37	Pre-mRNA splicing repression triggers abiotic stress signaling in plants. <i>Plant Journal</i> , 2017, 89, 291-309.	2.8	68
38	Thermopriming reprograms metabolic homeostasis to confer heat tolerance. <i>Scientific Reports</i> , 2019, 9, 181.	1.6	67
39	CRISPR/Cas13 as a Tool for RNA Interference. <i>Trends in Plant Science</i> , 2018, 23, 374-378.	4.3	64
40	LAMP-Coupled CRISPR-Cas12a Module for Rapid and Sensitive Detection of Plant DNA Viruses. <i>Viruses</i> , 2021, 13, 466.	1.5	62
41	Activity and specificity of TRV-mediated gene editing in plants. <i>Plant Signaling and Behavior</i> , 2015, 10, e1044191.	1.2	59
42	Engineering Plants for Geminivirus Resistance with CRISPR/Cas9 System. <i>Trends in Plant Science</i> , 2016, 21, 279-281.	4.3	59
43	Characterization and DNA-Binding Specificities of <i>Ralstonia</i> TAL-Like Effectors. <i>Molecular Plant</i> , 2013, 6, 1318-1330.	3.9	53
44	The Arabidopsis SWI/SNF protein BAF60 mediates seedling growth control by modulating DNA accessibility. <i>Genome Biology</i> , 2017, 18, 114.	3.8	53
45	Engineering virus resistance via CRISPR-Cas systems. <i>Current Opinion in Virology</i> , 2018, 32, 1-8.	2.6	53
46	Vigilant: An Engineered VirD2-Cas9 Complex for Lateral Flow Assay-Based Detection of SARS-CoV2. <i>Nano Letters</i> , 2021, 21, 3596-3603.	4.5	52
47	Pre-mRNA alternative splicing as a modulator for heat stress response in plants. <i>Trends in Plant Science</i> , 2021, 26, 1153-1170.	4.3	52
48	High efficiency of targeted mutagenesis in arabidopsis via meiotic promoter-driven expression of Cas9 endonuclease. <i>Plant Cell Reports</i> , 2016, 35, 1555-1558.	2.8	51
49	Genome Editing Technologies for Rice Improvement: Progress, Prospects, and Safety Concerns. <i>Frontiers in Genome Editing</i> , 2020, 2, 5.	2.7	51
50	CRISPR-Based Crop Improvements: A Way Forward to Achieve Zero Hunger. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 8307-8323.	2.4	50
51	Bio-SCAN: A CRISPR/dCas9-Based Lateral Flow Assay for Rapid, Specific, and Sensitive Detection of SARS-CoV-2. <i>ACS Synthetic Biology</i> , 2022, 11, 406-419.	1.9	48
52	TALE nucleases and next generation GM crops. <i>GM Crops</i> , 2011, 2, 99-103.	1.8	46
53	Efficient dCas9 Synthetic Endonuclease with Improved Specificity for Precise Genome Engineering. <i>PLoS ONE</i> , 2015, 10, e0133373.	1.1	46
54	GCN5 modulates salicylic acid homeostasis by regulating H3K14ac levels at the 5' and 3' ends of its target genes. <i>Nucleic Acids Research</i> , 2020, 48, 5953-5966.	6.5	44

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55	Activities and specificities of homodimeric TALENs in <i>Saccharomyces cerevisiae</i> . <i>Current Genetics</i> , 2014, 60, 61-74.	0.8	39
56	Polycomb-dependent differential chromatin compartmentalization determines gene coregulation in <i>Arabidopsis</i> . <i>Genome Research</i> , 2021, 31, 1230-1244.	2.4	36
57	RNA-directed DNA methylation. <i>Plant Signaling and Behavior</i> , 2010, 5, 806-816.	1.2	34
58	CRISPR-Based Directed Evolution for Crop Improvement. <i>Trends in Biotechnology</i> , 2020, 38, 236-240.	4.9	34
59	A Novel Miniature CRISPR-Cas13 System for SARS-CoV-2 Diagnostics. <i>ACS Synthetic Biology</i> , 2021, 10, 2541-2551.	1.9	34
60	Characterization of a thermostable Cas13 enzyme for one-pot detection of SARS-CoV-2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	33
61	Herboxidiene triggers splicing repression and abiotic stress responses in plants. <i>BMC Genomics</i> , 2017, 18, 260.	1.2	31
62	Genome editing: The efficient tool CRISPR-Cpf1. <i>Nature Plants</i> , 2017, 3, 17028.	4.7	29
63	Serine/Arginine-rich protein family of splicing regulators: New approaches to study splice isoform functions. <i>Plant Science</i> , 2019, 283, 127-134.	1.7	27
64	Bacterial proteins and CpG-rich extrachromosomal DNA in potential cancer therapy. <i>Plasmid</i> , 2007, 57, 4-17.	0.4	25
65	Development of Cas12a-Based Cell-Free Small-Molecule Biosensors via Allosteric Regulation of CRISPR Array Expression. <i>Analytical Chemistry</i> , 2022, 94, 4617-4626.	3.2	25
66	Onsite detection of plant viruses using isothermal amplification assays. <i>Plant Biotechnology Journal</i> , 2022, 20, 1859-1873.	4.1	25
67	iSCAN-V2: A One-Pot RT-RPA-CRISPR/Cas12b Assay for Point-of-Care SARS-CoV-2 Detection. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 800104.	2.0	24
68	Transcription activator-like effector nucleases mediated metabolic engineering for enhanced fatty acids production in <i>Saccharomyces cerevisiae</i> . <i>Journal of Bioscience and Bioengineering</i> , 2015, 120, 364-371.	1.1	23
69	Multiplex CRISPR Mutagenesis of the Serine/Arginine-Rich (SR) Gene Family in Rice. <i>Genes</i> , 2019, 10, 596.	1.0	23
70	Targeted genome regulation via synthetic programmable transcriptional regulators. <i>Critical Reviews in Biotechnology</i> , 2017, 37, 429-440.	5.1	22
71	Next-generation precision genome engineering and plant biotechnology. <i>Plant Cell Reports</i> , 2016, 35, 1397-1399.	2.8	19
72	CRISPR-TSKO: A Tool for Tissue-Specific Genome Editing in Plants. <i>Trends in Plant Science</i> , 2020, 25, 123-126.	4.3	19

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73	Virus-Mediated Genome Editing in Plants Using the CRISPR/Cas9 System. <i>Methods in Molecular Biology</i> , 2019, 1917, 311-326.	0.4	16
74	DNA-Carbon Nanotube Binding Mode Determines the Efficiency of Carbon Nanotube-Mediated DNA Delivery to Intact Plants. <i>ACS Applied Nano Materials</i> , 2022, 5, 4663-4676.	2.4	16
75	Detection of a Usp-like gene in <i>Calotropis procera</i> plant from the de novo assembled genome contigs of the high-throughput sequencing dataset. <i>Comptes Rendus - Biologies</i> , 2014, 337, 86-94.	0.1	15
76	CRISPR/Cas9 Mutagenesis by Translocation of Cas9 Protein Into Plant Cells via the <i>Agrobacterium</i> Type IV Secretion System. <i>Frontiers in Genome Editing</i> , 2020, 2, 6.	2.7	14
77	The Rice Serine/Arginine Splicing Factor RS33 Regulates Pre-mRNA Splicing during Abiotic Stress Responses. <i>Cells</i> , 2022, 11, 1796.	1.8	14
78	CRISPR/Cas systems versus plant viruses: engineering plant immunity and beyond. <i>Plant Physiology</i> , 2021, 186, 1770-1785.	2.3	13
79	Synthetic directed evolution in plants: unlocking trait engineering and improvement. <i>Synthetic Biology</i> , 2021, 6, ysab025.	1.2	13
80	Engineering Molecular Immunity Against Plant Viruses. <i>Progress in Molecular Biology and Translational Science</i> , 2017, 149, 167-186.	0.9	12
81	CRISPR/Cas9-mediated target validation of the splicing inhibitor Pladienolide B. <i>Biochimie Open</i> , 2016, 3, 72-75.	3.2	11
82	Microbial Biocontainment Systems for Clinical, Agricultural, and Industrial Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 830200.	2.0	9
83	Overlapping roles of spliceosomal components SF3B1 and PHF5A in rice splicing regulation. <i>Communications Biology</i> , 2021, 4, 529.	2.0	8
84	The Anticancer Activity of the N-Terminal CARD-Like Domain of Arginine Deiminase (ADI) from <i>Pseudomonas aeruginosa</i> . <i>Letters in Drug Design and Discovery</i> , 2009, 6, 403-412.	0.4	5
85	A Simplified Method to Engineer CRISPR/Cas9-Mediated Geminivirus Resistance in Plants. <i>Methods in Molecular Biology</i> , 2019, 2028, 167-183.	0.4	5
86	Plant genome engineering from lab to field—a Keystone Symposia report. <i>Annals of the New York Academy of Sciences</i> , 2021, 1506, 35-54.	1.8	4
87	Chemical activation of <i>Arabidopsis</i> SnRK2.6 by pladienolide B. <i>Plant Signaling and Behavior</i> , 2021, 16, 1885165.	1.2	1
88	CS-Cells: A CRISPR-Cas12 DNA Device to Generate Chromosome-Shredded Cells for Efficient and Safe Molecular Biomanufacturing. <i>ACS Synthetic Biology</i> , 2022, 11, 430-440.	1.9	1