Melissa G Mitchum

List of Publications by Year
in descending order

82 papers	5,686 citations	76326 40 h-index	79698 73 g-index
84 all docs	84 docs citations	84 times ranked	3505 citing authors

#	Article	IF	Citations
1	A soybean cyst nematode resistance gene points to a new mechanism of plant resistance to pathogens. Nature, 2012, 492, 256-260.	27.8	332
2	Distinct and overlapping roles of two gibberellin 3-oxidases in Arabidopsis development. Plant Journal, 2006, 45, 804-818.	5.7	282
3	Nematode effector proteins: an emerging paradigm of parasitism. New Phytologist, 2013, 199, 879-894.	7.3	269
4	How nematodes manipulate plant development pathways for infection. Current Opinion in Plant Biology, 2011, 14, 415-421.	7.1	260
5	Developmental Transcript Profiling of Cyst Nematode Feeding Cells in Soybean Roots. Molecular Plant-Microbe Interactions, 2007, 20, 510-525.	2.6	240
6	Parasitism proteins in nematodeâ€“plant interactions. Current Opinion in Plant Biology, 2008, 11, 360-366.	7.1	223
7	A parasitism gene from a plant-parasitic nematode with function similar toCLAVATA3/ESR (CLE)ofArabidopsis thaliana. Molecular Plant Pathology, 2005, 6, 187-191.	4.2	215
8	Potential Sites of Bioactive Gibberellin Production during Reproductive Growth in <i>Arabidopsis</i> Â. Plant Cell, 2008, 20, 320-336.	6.6	209
9	Cellulose Binding Protein from the Parasitic Nematode <i>Heterodera schachtii</i> Interacts with <i>Arabidopsis</i> Pectin Methylesterase: Cooperative Cell Wall Modification during Parasitism. Plant Cell, 2008, 20, 3080-3093.	6.6	201
10	Parallel Genome-Wide Expression Profiling of Host and Pathogen During Soybean Cyst Nematode Infection of Soybean. Molecular Plant-Microbe Interactions, 2007, 20, 293-305.	2.6	197
11	Arabidopsis Spermidine Synthase Is Targeted by an Effector Protein of the Cyst Nematode <i>Heterodera schachtii</i>. Plant Physiology, 2010, 152, 968-984.	4.8	189
12	Effective and specific in planta RNAi in cyst nematodes: expression interference of four parasitism genes reduces parasitic success. Journal of Experimental Botany, 2009, 60, 315-324.	4.8	144
13	The Novel Cyst Nematode Effector Protein 19C07 Interacts with the Arabidopsis Auxin Influx Transporter LAX3 to Control Feeding Site Development Â Â. Plant Physiology, 2011, 155, 866-880.	4.8	141
14	Dual roles for the variable domain in protein trafficking and hostâ€specific recognition of <i>Heterodera glycines</i> CLE effector proteins. New Phytologist, 2010, 187, 1003-1017.	7.3	116
15	A nematode effector protein similar to annexins in host plants. Journal of Experimental Botany, 2010, 61, 235-248.	4.8	114
16	A parasitic nematode releases cytokinin that controls cell division and orchestrates feeding site formation in host plants. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12669-12674.	7.1	113
17	Nematode CLE signaling in Arabidopsis requires CLAVATA2 and CORYNE. Plant Journal, 2011, 65, 430-440.	5.7	108
18	The Soybean <i>Rhg1</i> Locus for Resistance to the Soybean Cyst Nematode <i>Heterodera glycines</i> Regulates the Expression of a Large Number of Stress- and Defense-Related Genes in Degenerating Feeding Cells Â Â Â. Plant Physiology, 2011, 155, 1960-1975.	4.8	102

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19	Soybean Resistance to the Soybean Cyst Nematode <i>Heterodera glycines</i>: An Update. Phytopathology, 2016, 106, 1444-1450.	2.2	101
20	Structural and Functional Diversity of <i>CLAVATA3/ESR</i> (<i>CLE</i>)-Like Genes from the Potato Cyst Nematode <i>Globodera rostochiensis</i>. Molecular Plant-Microbe Interactions, 2009, 22, 1128-1142.	2.6	96
21	Identification of potential host plant mimics of CLAVATA3/ESR (CLE)â€like peptides from the plantâ€parasitic nematode <i>Heterodera schachtii</i>. Molecular Plant Pathology, 2011, 12, 177-186.	4.2	95
22	Diverse and conserved roles of CLE peptides. Current Opinion in Plant Biology, 2008, 11, 75-81.	7.1	94
23	Phytoparasitic Nematode Control of Plant Hormone Pathways. Plant Physiology, 2019, 179, 1212-1226.	4.8	94
24	The soybean GmSNAP18 gene underlies two types of resistance to soybean cyst nematode. Nature Communications, 2017, 8, 14822.	12.8	91
25	Role of Nematode Peptides and Other Small Molecules in Plant Parasitism. Annual Review of Phytopathology, 2012, 50, 175-195.	7.8	89
26	The Cyst Nematode Effector Protein 10A07 Targets and Recruits Host Posttranslational Machinery to Mediate Its Nuclear Trafficking and to Promote Parasitism in Arabidopsis. Plant Cell, 2015, 27, 891-907.	6.6	84
27	The interaction of the novel 30C02 cyst nematode effector protein with a plant Î²-1,3-endoglucanase may suppress host defence to promote parasitism. Journal of Experimental Botany, 2012, 63, 3683-3695.	4.8	80
28	Variability in Distribution and Virulence Phenotypes of <i>Heterodera glycines</i> in Missouri During 2005. Plant Disease, 2007, 91, 1473-1476.	1.4	75
29	Nematodes. Sophisticated Parasites of Legumes. Plant Physiology, 2005, 137, 1182-1188.	4.8	70
30	Enhanced resistance to soybean cyst nematode <i>Heterodera glycines</i> in transgenic soybean by silencing putative <scp>CLE</scp> receptors. Plant Biotechnology Journal, 2015, 13, 801-810.	8.3	59
31	Identification of cyst nematode B-type CLE peptides and modulation of the vascular stem cell pathway for feeding cell formation. PLoS Pathogens, 2017, 13, e1006142.	4.7	58
32	Eighteen New Candidate Effectors of the Phytonematode <i>Heterodera glycines</i> Produced Specifically in the Secretory Esophageal Gland Cells During Parasitism. Phytopathology, 2015, 105, 1362-1372.	2.2	57
33	Synergistic Interaction of CLAVATA1, CLAVATA2, and RECEPTOR-LIKE PROTEIN KINASE 2 in Cyst Nematode Parasitism of <i>Arabidopsis</i>. Molecular Plant-Microbe Interactions, 2013, 26, 87-96.	2.6	55
34	The genome of the soybean cyst nematode (Heterodera glycines) reveals complex patterns of duplications involved in the evolution of parasitism genes. BMC Genomics, 2019, 20, 119.	2.8	55
35	In Planta Processing and Glycosylation of a Nematode CLAVATA3/ENDOSPERM SURROUNDING REGION-Like Effector and Its Interaction with a Host CLAVATA2-Like Receptor to Promote Parasitism. Plant Physiology, 2015, 167, 262-272.	4.8	52
36	The tobacco Cel7 gene promoter is auxin-responsive and locally induced in nematode feeding sites of heterologous plants. Molecular Plant Pathology, 2007, 8, 423-436.	4.2	50

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37	Molecular Insights in the Susceptible Plant Response to Nematode Infection. Plant Cell Monographs, 2009, , 45-81.	0.4	47
38	A <i>Plasmodium</i>â€like virulence effector of the soybean cyst nematode suppresses plant innate immunity. New Phytologist, 2016, 212, 444-460.	7.3	47
39	The promoter of the Arabidopsis thaliana Cel1 endo-1,4-beta glucanase gene is differentially expressed in plant feeding cells induced by root-knot and cyst nematodes. Molecular Plant Pathology, 2004, 5, 175-181.	4.2	44
40	Systematic Mutagenesis of Serine Hydroxymethyltransferase Reveals an Essential Role in Nematode Resistance Â. Plant Physiology, 2017, 175, 1370-1380.	4.8	43
41	Divergent expression of cytokinin biosynthesis, signaling and catabolism genes underlying differences in feeding sites induced by cyst and rootâ€knot nematodes. Plant Journal, 2017, 92, 211-228.	5.7	42
42	Soybean cyst nematode resistance in soybean is independent of the Rhg4 locus LRR-RLK gene. Functional and Integrative Genomics, 2011, 11, 539-549.	3.5	40
43	The novel cyst nematode effector protein 30D08 targets host nuclear functions to alter gene expression in feeding sites. New Phytologist, 2018, 219, 697-713.	7.3	38
44	Survey of <i>Heterodera glycines</i> Population Densities and Virulence Phenotypes During 2015â€“2016 in Missouri. Plant Disease, 2018, 102, 2407-2410.	1.4	35
45	A cyst nematode effector binds to diverse plant proteins, increases nematode susceptibility and affects root morphology. Molecular Plant Pathology, 2016, 17, 832-844.	4.2	32
46	Novel global effector mining from the transcriptome of early life stages of the soybean cyst nematode Heterodera glycines. Scientific Reports, 2018, 8, 2505.	3.3	31
47	The plantâ€parasitic cyst nematode effector GLAND4 is a DNAâ€binding protein. Molecular Plant Pathology, 2018, 19, 2263-2276.	4.2	31
48	War of the worms: how plants fight underground attacks. Current Opinion in Plant Biology, 2013, 16, 457-463.	7.1	30
49	Members of the <i>Meloidogyne</i> Avirulence Protein Family Contain Multiple Plant Ligand-Like Motifs. Phytopathology, 2014, 104, 879-885.	2.2	29
50	A virus-induced gene silencing method to study soybean cyst nematode parasitism in Glycine max. BMC Research Notes, 2013, 6, 255.	1.4	28
51	Screening soybean cyst nematode effectors for their ability to suppress plant immunity. Molecular Plant Pathology, 2020, 21, 1240-1247.	4.2	24
52	Phytonematode peptide effectors exploit a host postâ€translational trafficking mechanism to the ER using a novel translocation signal. New Phytologist, 2021, 229, 563-574.	7.3	24
53	Genetics and Adaptation of Soybean Cyst Nematode to Broad Spectrum Soybean Resistance. G3: Genes, Genomes, Genetics, 2017, 7, 835-841.	1.8	23
54	Transcriptomic and Proteomic Analysis of the Plant Response to Nematode Infection. , 2011, , 157-173.		23

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55	Variable domain I of nematode CLEs directs post-translational targeting of CLE peptides to the extracellular space. Plant Signaling and Behavior, 2010, 5, 1633-1635.	2.4	21
56	Temporal and spatial <i>Bean pod mottle virus</i>â€induced gene silencing in soybean. Molecular Plant Pathology, 2012, 13, 1140-1148.	4.2	19
57	Emerging Roles of Cyst Nematode Effectors in Exploiting Plant Cellular Processes. Advances in Botanical Research, 2015, 73, 259-291.	1.1	17
58	Novel RNA viruses within plant parasitic cyst nematodes. PLoS ONE, 2018, 13, e0193881.	2.5	15
59	A major quantitative trait locus resistant to southern rootâ€knot nematode sustains soybean yield under nematode pressure. Crop Science, 2021, 61, 1773-1782.	1.8	15
60	A High-Throughput Automated Technique for Counting Females of Heterodera glycines using a Fluorescence-Based Imaging System. Journal of Nematology, 2010, 42, 201-6.	0.9	14
61	Impaired folate binding of serine hydroxymethyltransferase 8 from soybean underlies resistance to the soybean cyst nematode. Journal of Biological Chemistry, 2020, 295, 3708-3718.	3.4	13
62	Soybean cyst nematode culture collections and field populations from North Carolina and Missouri reveal high incidences of infection by viruses. PLoS ONE, 2017, 12, e0171514.	2.5	13
63	TILLING: A Reverse Genetics and a Functional Genomics Tool in Soybean. , 0, , 251-265.		12
64	Molecular Insights in the Susceptible Plant Response to Nematode Infection. Plant Cell Monographs, 2008, , 45.	0.4	12
65	The <scp>A</scp>rabidopsis immune regulator <scp><i>SRFR</i></scp><i>1</i> dampens defences against herbivory by <scp><i>S</i></scp><i>podoptera exigua</i> and parasitism by <scp><i>H</i></scp><i>eterodera schachtii</i>. Molecular Plant Pathology, 2016, 17, 588-600.	4.2	11
66	Peptide Effectors in Phytonematode Parasitism and Beyond. Annual Review of Phytopathology, 2022, 60, 97-119.	7.8	10
67	At the molecular plantâ€“nematode interface: New players and emerging paradigms. Current Opinion in Plant Biology, 2022, 67, 102225.	7.1	10
68	Targeted suppression of soybean BAG6â€induced cell death in yeast by soybean cyst nematode effectors. Molecular Plant Pathology, 2020, 21, 1227-1239.	4.2	9
69	Registration of â€˜S14â€15146GTâ€™ soybean, a highâ€yielding RR1 cultivar with high oil content and broad disease resistance and adaptation. Journal of Plant Registrations, 2020, 14, 35-42.	0.5	9
70	Resistance Gene Pyramiding and Rotation to Combat Widespread Soybean Cyst Nematode Virulence. Plant Disease, 2021, 105, 3238-3243.	1.4	9
71	<scp>Patternâ€triggered</scp> immunity against <scp>rootâ€knot</scp> nematode infection: A minireview. Physiologia Plantarum, 2022, 174, e13680.	5.2	9
72	Esophageal Gland RNA-Seq Resource of a Virulent and Avirulent Population of the Soybean Cyst Nematode <i>Heterodera glycines</i>. Molecular Plant-Microbe Interactions, 2021, 34, 1084-1087.	2.6	7

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73	Genomics of the Soybean Cyst Nematode-Soybean Interaction. , 2008, , 321-341.		7
74	Epistatic interaction between Rhg1-a and Rhg2 in PI 90763 confers resistance to virulent soybean cyst nematode populations. Theoretical and Applied Genetics, 2022, 135, 2025-2039.	3.6	7
75	Registration of â€˜S16â€5540GTâ€™ soybean cultivar with high yield, resistance to multiple diseases, elevated protein content, and wide adaptation. Journal of Plant Registrations, 0, , .	0.5	2
76	â€˜S16â€7922Câ€™: A semiâ€determinate maturity group IV conventional soybean cultivar with high yield and broad disease resistance. Journal of Plant Registrations, 2022, 16, 300-315.	0.5	2
77	Focus Issue Editorial: Biotic Stress. Plant Physiology, 2019, 179, 1193-1195.	4.8	1
78	Registration of â€˜S13â€10592Câ€™, a highâ€yielding soybean cultivar with resistance to multiple diseases and elevated oil content. Journal of Plant Registrations, 2022, 16, 252-261.	0.5	1
79	Registration of â€˜S16â€15170Câ€™ soybean: A highâ€yielding indeterminate maturity group V cultivar with wide adaptability and multiple disease resistance. Journal of Plant Registrations, 0, , .	0.5	1
80	Registration of â€˜S15â€10434Câ€™ soybean cultivar with high yield, resistance to multiple diseases, and wide adaptation. Journal of Plant Registrations, 0, , .	0.5	1
81	â€˜ShowMeSoy 4301â€™: Highâ€yielding soybean with multiple disease resistance and elevated seed oil content. Journal of Plant Registrations, 0, , .	0.5	0
82	Registration of â€˜S16â€11651Câ€™, a conventional soybean cultivar with high yield, resistance to multiple diseases, and broad adaptation. Journal of Plant Registrations, 0, , .	0.5	0