

Thomas J Baum

List of Publications by Year in descending order

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102
papers

9,800
citations

41627

51
h-index

42259

96
g-index

108
all docs

108
docs citations

108
times ranked

5594
citing authors

#	ARTICLE	IF	CITATIONS
1	Genome sequence of the metazoan plant-parasitic nematode <i>Meloidogyne incognita</i> . <i>Nature Biotechnology</i> , 2008, 26, 909-915.	9.4	1,012
2	Engineering broad root-knot resistance in transgenic plants by RNAi silencing of a conserved and essential root-knot nematode parasitism gene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14302-14306.	3.3	543
3	A soybean cyst nematode resistance gene points to a new mechanism of plant resistance to pathogens. <i>Nature</i> , 2012, 492, 256-260.	13.7	332
4	Getting to the roots of parasitism by nematodes. <i>Trends in Parasitology</i> , 2004, 20, 134-141.	1.5	273
5	Nematode Parasitism Genes. <i>Annual Review of Phytopathology</i> , 2000, 38, 365-396.	3.5	270
6	Nematode effector proteins: an emerging paradigm of parasitism. <i>New Phytologist</i> , 2013, 199, 879-894.	3.5	269
7	The Parasitome of the Phytonematode <i>Heterodera glycines</i> . <i>Molecular Plant-Microbe Interactions</i> , 2003, 16, 720-726.	1.4	257
8	Developmental Transcript Profiling of Cyst Nematode Feeding Cells in Soybean Roots. <i>Molecular Plant-Microbe Interactions</i> , 2007, 20, 510-525.	1.4	240
9	Parasitism proteins in nematode-plant interactions. <i>Current Opinion in Plant Biology</i> , 2008, 11, 360-366.	3.5	223
10	A parasitism gene from a plant-parasitic nematode with function similar to <i>CLAVATA3/ESR (CLE)</i> of <i>Arabidopsis thaliana</i> . <i>Molecular Plant Pathology</i> , 2005, 6, 187-191.	2.0	215
11	The <i>Arabidopsis</i> MicroRNA396- <i>GRF1/GRF3</i> Regulatory Module Acts as a Developmental Regulator in the Reprogramming of Root Cells during Cyst Nematode Infection. <i>Plant Physiology</i> , 2012, 159, 321-335.	2.3	214
12	A Profile of Putative Parasitism Genes Expressed in the Esophageal Gland Cells of the Root-knot Nematode <i>Meloidogyne incognita</i> . <i>Molecular Plant-Microbe Interactions</i> , 2003, 16, 376-381.	1.4	211
13	Cellulose Binding Protein from the Parasitic Nematode <i>Heterodera schachtii</i> Interacts with <i>Arabidopsis</i> Pectin Methyltransferase: Cooperative Cell Wall Modification during Parasitism. <i>Plant Cell</i> , 2008, 20, 3080-3093.	3.1	201
14	Parallel Genome-Wide Expression Profiling of Host and Pathogen During Soybean Cyst Nematode Infection of Soybean. <i>Molecular Plant-Microbe Interactions</i> , 2007, 20, 293-305.	1.4	197
15	A Root-Knot Nematode Secretory Peptide Functions as a Ligand for a Plant Transcription Factor. <i>Molecular Plant-Microbe Interactions</i> , 2006, 19, 463-470.	1.4	189
16	<i>Arabidopsis</i> Spermidine Synthase Is Targeted by an Effector Protein of the Cyst Nematode <i>Heterodera schachtii</i> . <i>Plant Physiology</i> , 2010, 152, 968-984.	2.3	189
17	Isolation of a cDNA Encoding a β -1,4-endoglucanase in the Root-Knot Nematode <i>Meloidogyne incognita</i> and Expression Analysis During Plant Parasitism. <i>Molecular Plant-Microbe Interactions</i> , 1999, 12, 585-591.	1.4	188
18	Manipulation of Plant Cells by Cyst and Root-Knot Nematode Effectors. <i>Molecular Plant-Microbe Interactions</i> , 2013, 26, 9-16.	1.4	184

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19	Arabidopsis gene expression changes during cyst nematode parasitism revealed by statistical analyses of microarray expression profiles. <i>Plant Journal</i> , 2003, 33, 911-921.	2.8	180
20	Signal Peptide-Selection of cDNA Cloned Directly from the Esophageal Gland Cells of the Soybean Cyst Nematode <i>Heterodera glycines</i> . <i>Molecular Plant-Microbe Interactions</i> , 2001, 14, 536-544.	1.4	156
21	Effective and specific in planta RNAi in cyst nematodes: expression interference of four parasitism genes reduces parasitic success. <i>Journal of Experimental Botany</i> , 2009, 60, 315-324.	2.4	144
22	The Novel Cyst Nematode Effector Protein 19C07 Interacts with the Arabidopsis Auxin Influx Transporter LAX3 to Control Feeding Site Development. <i>Plant Physiology</i> , 2011, 155, 866-880.	2.3	141
23	Susceptibility to the Sugar Beet Cyst Nematode Is Modulated by Ethylene Signal Transduction in <i>Arabidopsis thaliana</i> . <i>Molecular Plant-Microbe Interactions</i> , 2001, 14, 1206-1212.	1.4	134
24	Genomic organization of four β -1,4-endoglucanase genes in plant-parasitic cyst nematodes and its evolutionary implications. <i>Gene</i> , 1998, 220, 61-70.	1.0	128
25	<i>Arabidopsis</i> Small RNAs and Their Targets During Cyst Nematode Parasitism. <i>Molecular Plant-Microbe Interactions</i> , 2008, 21, 1622-1634.	1.4	124
26	Dual roles for the variable domain in protein trafficking and host-specific recognition of <i>Heterodera glycines</i> CLE effector proteins. <i>New Phytologist</i> , 2010, 187, 1003-1017.	3.5	116
27	A nematode effector protein similar to annexins in host plants. <i>Journal of Experimental Botany</i> , 2010, 61, 235-248.	2.4	114
28	In Planta Localization of a β -1,4-Endoglucanase Secreted by <i>Heterodera glycines</i> . <i>Molecular Plant-Microbe Interactions</i> , 1999, 12, 64-67.	1.4	113
29	Nematode CLE signaling in <i>Arabidopsis</i> requires CLAVATA2 and CORYNE. <i>Plant Journal</i> , 2011, 65, 430-440.	2.8	108
30	Identification of Putative Parasitism Genes Expressed in the Esophageal Gland Cells of the Soybean Cyst Nematode <i>Heterodera glycines</i> . <i>Molecular Plant-Microbe Interactions</i> , 2001, 14, 1247-1254.	1.4	107
31	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 Degrading Feeding Cells. <i>Plant Physiology</i> , 2011, 155, 1960-1975.	2.3	102
32	A ubiquitin carboxyl extension protein secreted from a plant-parasitic nematode <i>Globodera rostochiensis</i> is cleaved in planta to promote plant parasitism. <i>Plant Journal</i> , 2013, 74, 185-196.	2.8	98
33	Identification of potential host plant mimics of CLAVATA3/ESR (CLE)-like peptides from the plant-parasitic nematode <i>Heterodera schachtii</i> . <i>Molecular Plant Pathology</i> , 2011, 12, 177-186.	2.0	95
34	Developmental Expression of Secretory β -1,4-endoglucanases in the Subventral Esophageal Glands of <i>Heterodera glycines</i> . <i>Molecular Plant-Microbe Interactions</i> , 1999, 12, 663-669.	1.4	87
35	The <i>8D05</i> Parasitism Gene of <i>Meloidogyne incognita</i> Is Required for Successful Infection of Host Roots. <i>Phytopathology</i> , 2013, 103, 175-181.	1.1	86
36	Expression of an Arabidopsis phosphoglycerate mutase homologue is localized to apical meristems, regulated by hormones, and induced by sedentary plant-parasitic nematodes. <i>Plant Molecular Biology</i> , 2003, 53, 513-530.	2.0	85

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37	The Cyst Nematode Effector Protein 10A07 Targets and Recruits Host Posttranslational Machinery to Mediate Its Nuclear Trafficking and to Promote Parasitism in Arabidopsis. <i>Plant Cell</i> , 2015, 27, 891-907.	3.1	84
38	The interaction of the novel 30C02 cyst nematode effector protein with a plant β -1,3-endoglucanase may suppress host defence to promote parasitism. <i>Journal of Experimental Botany</i> , 2012, 63, 3683-3695.	2.4	80
39	A Small Cysteine-Rich Protein from the Asian Soybean Rust Fungus, <i>Phakopsora pachyrhizi</i> , Suppresses Plant Immunity. <i>PLoS Pathogens</i> , 2016, 12, e1005827.	2.1	79
40	GmEREBP1 Is a Transcription Factor Activating Defense Genes in Soybean and Arabidopsis. <i>Molecular Plant-Microbe Interactions</i> , 2007, 20, 107-119.	1.4	78
41	Synchronization of Developmental Processes and Defense Signaling by Growth Regulating Transcription Factors. <i>PLoS ONE</i> , 2014, 9, e98477.	1.1	76
42	Molecular characterisation and expression of two venom allergen-like protein genes in <i>Heterodera glycines</i> . <i>International Journal for Parasitology</i> , 2001, 31, 1617-1625.	1.3	75
43	Active uptake of cyst nematode parasitism proteins into the plant cell nucleus. <i>International Journal for Parasitology</i> , 2007, 37, 1269-1279.	1.3	73
44	Two chorismate mutase genes from the root-knot nematode <i>Meloidogyne incognita</i> . <i>Molecular Plant Pathology</i> , 2005, 6, 23-30.	2.0	66
45	Arabidopsis miR827 mediates post-transcriptional gene silencing of its ubiquitin E3 ligase target gene in the syncytium of the cyst nematode <i>Heterodera schachtii</i> to enhance susceptibility. <i>Plant Journal</i> , 2016, 88, 179-192.	2.8	65
46	Identification and Characterization of a Soybean Ethylene-Responsive Element-Binding Protein Gene Whose mRNA Expression Changes During Soybean Cyst Nematode Infection. <i>Molecular Plant-Microbe Interactions</i> , 2002, 15, 577-586.	1.4	64
47	Developmental expression and molecular analysis of two <i>Meloidogyne incognita</i> pectate lyase genes. <i>International Journal for Parasitology</i> , 2005, 35, 685-692.	1.3	63
48	Secrets in secretions: genes that control nematode parasitism of plants. <i>Brazilian Journal of Plant Physiology</i> , 2002, 14, 183-194.	0.5	59
49	Transcriptome analyses and virus induced gene silencing identify genes in the Rpp4-mediated Asian soybean rust resistance pathway. <i>Functional Plant Biology</i> , 2013, 40, 1029.	1.1	57
50	Eighteen New Candidate Effectors of the Phytonematode <i>Heterodera glycines</i> Produced Specifically in the Secretory Esophageal Gland Cells During Parasitism. <i>Phytopathology</i> , 2015, 105, 1362-1372.	1.1	57
51	Isolation of Whole Esophageal Gland Cells from Plant-Parasitic Nematodes for Transcriptome Analyses and Effector Identification. <i>Molecular Plant-Microbe Interactions</i> , 2013, 26, 31-35.	1.4	56
52	The genome of the soybean cyst nematode (<i>Heterodera glycines</i>) reveals complex patterns of duplications involved in the evolution of parasitism genes. <i>BMC Genomics</i> , 2019, 20, 119.	1.2	55
53	Suppression or Activation of Immune Responses by Predicted Secreted Proteins of the Soybean Rust Pathogen <i>Phakopsora pachyrhizi</i> . <i>Molecular Plant-Microbe Interactions</i> , 2018, 31, 163-174.	1.4	54
54	Differential Display Analysis of the Early Compatible Interaction Between Soybean and the Soybean Cyst Nematode. <i>Molecular Plant-Microbe Interactions</i> , 1998, 11, 1258-1263.	1.4	52

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55	Complex feedback regulations govern the expression of miRNA396 and its GRF target genes. <i>Plant Signaling and Behavior</i> , 2012, 7, 749-751.	1.2	52
56	Root-Knot and Cyst Nematode Parasitism Genes: The Molecular Basis of Plant Parasitism. , 2007, 28, 17-43.		49
57	Use of solid-phase subtractive hybridization for the identification of parasitism gene candidates from the root-knot nematode <i>Meloidogyne incognita</i> . <i>Molecular Plant Pathology</i> , 2004, 5, 217-222.	2.0	48
58	Mutation of a UDP-glucose-4-epimerase alters nematode susceptibility and ethylene responses in <i>Arabidopsis</i> roots. <i>Plant Journal</i> , 2004, 40, 712-724.	2.8	47
59	A <i>Plasmodium</i> -like virulence effector of the soybean cyst nematode suppresses plant innate immunity. <i>New Phytologist</i> , 2016, 212, 444-460.	3.5	47
60	Changes in mRNA Abundance within <i>Heterodera schachtii</i> -Infected Roots of <i>Arabidopsis thaliana</i> . <i>Molecular Plant-Microbe Interactions</i> , 2000, 13, 309-315.	1.4	46
61	Cooperative Regulatory Functions of miR858 and MYB83 during Cyst Nematode Parasitism. <i>Plant Physiology</i> , 2017, 174, 1897-1912.	2.3	46
62	Characterisation and developmental expression of a chitinase gene in <i>Heterodera glycines</i> . <i>International Journal for Parasitology</i> , 2002, 32, 1293-1300.	1.3	43
63	Sequence mining and transcript profiling to explore cyst nematode parasitism. <i>BMC Genomics</i> , 2009, 10, 58.	1.2	43
64	Molecular characterisation and developmental expression of a cellulose-binding protein gene in the soybean cyst nematode <i>Heterodera glycines</i> . <i>International Journal for Parasitology</i> , 2004, 34, 1377-1383.	1.3	40
65	Divergent evolution of arrested development in the dauer stage of <i>Caenorhabditis elegans</i> and the infective stage of <i>Heterodera glycines</i> . <i>Genome Biology</i> , 2007, 8, R211.	13.9	40
66	The <i>Arabidopsis</i> bHLH25 and bHLH27 transcription factors contribute to susceptibility to the cyst nematode <i>Heterodera schachtii</i> . <i>Plant Journal</i> , 2011, 65, 319-328.	2.8	40
67	The novel cyst nematode effector protein 30D08 targets host nuclear functions to alter gene expression in feeding sites. <i>New Phytologist</i> , 2018, 219, 697-713.	3.5	38
68	Identification of candidate effector genes of <i>Pratylenchus penetrans</i> . <i>Molecular Plant Pathology</i> , 2018, 19, 1887-1907.	2.0	36
69	A cyst nematode effector binds to diverse plant proteins, increases nematode susceptibility and affects root morphology. <i>Molecular Plant Pathology</i> , 2016, 17, 832-844.	2.0	32
70	A role for <i>Arabidopsis</i> growth-regulating factors 1 and 3 in growth-stress antagonism. <i>Journal of Experimental Botany</i> , 2020, 71, 1402-1417.	2.4	32
71	Novel global effector mining from the transcriptome of early life stages of the soybean cyst nematode <i>Heterodera glycines</i> . <i>Scientific Reports</i> , 2018, 8, 2505.	1.6	31
72	The plant-parasitic cyst nematode effector GLAND4 is a DNA-binding protein. <i>Molecular Plant Pathology</i> , 2018, 19, 2263-2276.	2.0	31

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73	Large tandem duplications affect gene expression, 3D organization, and plant pathogen response. <i>Genome Research</i> , 2020, 30, 1583-1592.	2.4	31
74	Arabidopsis peroxidase AtPRX53 influences cell elongation and susceptibility to <i>Heterodera schachtii</i> . <i>Plant Signaling and Behavior</i> , 2011, 6, 1778-1786.	1.2	30
75	An Effector from the Cyst Nematode <i>Heterodera schachtii</i> Derepresses Host rRNA Genes by Altering Histone Acetylation. <i>Plant Cell</i> , 2018, 30, 2795-2812.	3.1	30
76	Re-targeting of a plant defense protease by a cyst nematode effector. <i>Plant Journal</i> , 2019, 98, 1000-1014.	2.8	30
77	A virus-induced gene silencing method to study soybean cyst nematode parasitism in <i>Glycine max</i> . <i>BMC Research Notes</i> , 2013, 6, 255.	0.6	28
78	Homeostasis in the soybean miRNA396 GRF network is essential for productive soybean cyst nematode infections. <i>Journal of Experimental Botany</i> , 2019, 70, 1653-1668.	2.4	27
79	STATAWAARS: a promoter motif associated with spatial expression in the major effector-producing tissues of the plant-parasitic nematode <i>Bursaphelenchus xylophilus</i> . <i>BMC Genomics</i> , 2018, 19, 553.	1.2	26
80	Cyst-aided research into <i>Heterodera</i> parasitism. <i>PLoS Pathogens</i> , 2018, 14, e1006791.	2.1	26
81	The use of DNA microarrays for the developmental expression analysis of cDNAs from the oesophageal gland cell region of <i>Heterodera glycines</i> . <i>Molecular Plant Pathology</i> , 2002, 3, 261-270.	2.0	25
82	Quantitative Detection of Double-Stranded RNA-Mediated Gene Silencing of Parasitism Genes in <i>Heterodera glycines</i> . <i>Journal of Nematology</i> , 2007, 39, 145-52.	0.4	25
83	Screening soybean cyst nematode effectors for their ability to suppress plant immunity. <i>Molecular Plant Pathology</i> , 2020, 21, 1240-1247.	2.0	24
84	Phytonematode peptide effectors exploit a host post-translational trafficking mechanism to the ER using a novel translocation signal. <i>New Phytologist</i> , 2021, 229, 563-574.	3.5	24
85	Recognition and Response in Plant Nematode Interactions. <i>Annual Review of Phytopathology</i> , 2022, 60, 143-162.	3.5	23
86	Temporal and spatial Bean pod mottle virus-induced gene silencing in soybean. <i>Molecular Plant Pathology</i> , 2012, 13, 1140-1148.	2.0	19
87	Horizontal gene transfer of acetyltransferases, invertases and chorismate mutases from different bacteria to diverse recipients. <i>BMC Evolutionary Biology</i> , 2016, 16, 74.	3.2	19
88	Homologous soybean and <i>Arabidopsis</i> genes share responsiveness to cyst nematode infection. <i>Molecular Plant Pathology</i> , 2004, 5, 409-423.	2.0	16
89	A new esophageal gland transcriptome reveals signatures of large scale de novo effector birth in the root lesion nematode <i>Pratylenchus penetrans</i> . <i>BMC Genomics</i> , 2020, 21, 738.	1.2	15
90	Sequence and Spatiotemporal Expression Analysis of CLE-Motif Containing Genes from the Reniform Nematode (<i>Rotylenchulus reniformis</i> Linford & Oliveira). <i>Journal of Nematology</i> , 2015, 47, 159-65.	0.4	13

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91	Parasitism Genes: What They Reveal about Parasitism. <i>Plant Cell Monographs</i> , 2009, , 15-44.	0.4	12
92	Gene Silencing in Nematode Feeding Sites. <i>Advances in Botanical Research</i> , 2015, 73, 221-239.	0.5	12
93	A chromosomal assembly of the soybean cyst nematode genome. <i>Molecular Ecology Resources</i> , 2021, 21, 2407-2422.	2.2	10
94	SCNBase: a genomics portal for the soybean cyst nematode (<i>Heterodera glycines</i>). <i>Database: the Journal of Biological Databases and Curation</i> , 2019, 2019, .	1.4	9
95	Targeted suppression of soybean BAG6-induced cell death in yeast by soybean cyst nematode effectors. <i>Molecular Plant Pathology</i> , 2020, 21, 1227-1239.	2.0	9
96	Toward genetic modification of plant-parasitic nematodes: delivery of macromolecules to adults and expression of exogenous mRNA in second stage juveniles. <i>G3: Genes, Genomes, Genetics</i> , 2021, 11, .	0.8	9
97	Esophageal Gland RNA-Seq Resource of a Virulent and Avirulent Population of the Soybean Cyst Nematode <i>Heterodera glycines</i> . <i>Molecular Plant-Microbe Interactions</i> , 2021, 34, 1084-1087.	1.4	7
98	Genomics of the Soybean Cyst Nematode-Soybean Interaction. , 2008, , 321-341.		7
99	Sequence divergences between cyst nematode effector protein orthologs may contribute to host specificity. <i>Plant Signaling and Behavior</i> , 2010, 5, 187-189.	1.2	5
100	<i>Heterodera glycines</i> utilizes promiscuous spliced leaders and demonstrates a unique preference for a species-specific spliced leader over <i>C. elegans</i> SL1. <i>Scientific Reports</i> , 2019, 9, 1356.	1.6	5
101	miR778 mediates gene expression, histone modification, and DNA methylation during cyst nematode parasitism. <i>Plant Physiology</i> , 2022, 189, 2432-2453.	2.3	4
102	Targeted transcriptomics reveals signatures of large-scale independent origins and concerted regulation of effector genes in <i>Radopholus similis</i> . <i>PLoS Pathogens</i> , 2021, 17, e1010036.	2.1	2