Muthappa Senthil-Kumar

List of Publications by Year
in descending order

91 papers	6,113 citations	94433 37 h-index	76900 74 g-index
100 all docs	100 docs citations	100 times ranked	7212 citing authors

#	Article	IF	Citations
1	Dry Root Rot of Chickpea: A Disease Favored by Drought. Plant Disease, 2022, 106, 346-356.	1.4	17
2	Drought attenuates plant defence against bacterial pathogens by suppressing the expression of <i>CBP60g</i>/<i>SARD1</i> during combined stress. Plant, Cell and Environment, 2022, 45, 1127-1145.	5.7	19
3	Recent Advances in Plant Gene Silencing Methods. Methods in Molecular Biology, 2022, 2408, 1-22.	0.9	4
4	High-Throughput Analysis of Gene Function under Multiple Abiotic Stresses Using Leaf Disks from Silenced Plants. Methods in Molecular Biology, 2022, 2408, 181-189.	0.9	0
5	Drought Stress Exacerbates Fungal Colonization and Endodermal Invasion and Dampens Defense Responses to Increase Dry Root Rot in Chickpea. Molecular Plant-Microbe Interactions, 2022, 35, 583-591.	2.6	18
6	A spotlight on non-host resistance to plant viruses. PeerJ, 2022, 10, e12996.	2.0	1
7	Combined Drought and Heat Stress Influences the Root Water Relation and Determine the Dry Root Rot Disease Development Under Field Conditions: A Study Using Contrasting Chickpea Genotypes. Frontiers in Plant Science, 2022, 13, .	3.6	16
8	Functional role of formate dehydrogenase 1 (FDH1) for host and nonhost disease resistance against bacterial pathogens. PLoS ONE, 2022, 17, e0264917.	2.5	5
9	AtSWEET11 and AtSWEET12: the twin traders of sucrose. Trends in Plant Science, 2022, , .	8.8	4
10	A Novel Role of Salt- and Drought-Induced RING 1 Protein in Modulating Plant Defense Against Hemibiotrophic and Necrotrophic Pathogens. Molecular Plant-Microbe Interactions, 2021, 34, 297-308.	2.6	9
11	Dry Root Rot Disease Assays in Chickpea: a Detailed Methodology. Journal of Visualized Experiments, 2021, , .	0.3	4
12	Low soil moisture predisposes field-grown chickpea plants to dry root rot disease: evidence from simulation modeling and correlation analysis. Scientific Reports, 2021, 11, 6568.	3.3	16
13	Plant viral vectors: expanding the possibilities of precise gene editing in plant genomes. Plant Cell Reports, 2021, 40, 931-934.	5.6	11
14	A sick plotâ€“based protocol for dry root rot disease assessment in fieldâ€grown chickpea plants. Applications in Plant Sciences, 2021, 9, e11445.	2.1	7
15	Investigation of the novel transcriptional changes under combined drought and bacterial stress underpins the role of AtMYB96 in imparting tolerance. Journal of Plant Biochemistry and Biotechnology, 2021, 30, 999-1007.	1.7	6
16	The ins and outs of SWEETs in plants: Current understanding of the basics and their prospects in crop improvement. Journal of Biosciences, 2021, 46, 1.	1.1	0
17	Complex molecular mechanisms determine fitness of plants to biotic and abiotic stresses. Journal of Plant Biochemistry and Biotechnology, 2021, 30, 633-635.	1.7	6
18	Structure and regulation of SWEET transporters in plants: An update. Plant Physiology and Biochemistry, 2020, 156, 1-6.	5.8	27

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19	<i>pssRNAit</i>: A Web Server for Designing Effective and Specific Plant siRNAs with Genome-Wide Off-Target Assessment. Plant Physiology, 2020, 184, 65-81.	4.8	54
20	An efficient, highâ€throughput method for the simultaneous exposure of drought stress and bacterial infection in plants. Applications in Plant Sciences, 2020, 8, e11399.	2.1	2
21	Ribosomal protein QM/RPL10 positively regulates defence and protein translation mechanisms during nonhost disease resistance. Molecular Plant Pathology, 2020, 21, 1481-1494.	4.2	23
22	ath-miR164c influences plant responses to the combined stress of drought and bacterial infection by regulating proline metabolism. Environmental and Experimental Botany, 2020, 172, 103998.	4.2	30
23	An efficient lowâ€cost xylem sap isolation method for bacterial wilt assays in tomato. Applications in Plant Sciences, 2020, 8, e11335.	2.1	7
24	Non-host resistance to plant viruses: What do we know?. Physiological and Molecular Plant Pathology, 2020, 111, 101506.	2.5	7
25	AtGBF3 confers tolerance to Arabidopsis thaliana against combined drought and Pseudomonas syringae stress. Environmental and Experimental Botany, 2019, 168, 103881.	4.2	17
26	Morpho-Pathological and Global Transcriptomic Analysis Reveals the Robust Nonhost Resistance Responses in Chickpea Interaction with <i>Alternaria brassicae</i>. Molecular Plant-Microbe Interactions, 2019, 32, 1598-1613.	2.6	5
27	Impact of drought stress on simultaneously occurring pathogen infection in field-grown chickpea. Scientific Reports, 2019, 9, 5577.	3.3	65
28	Cross-Talk Signaling in Rice During Combined Drought and Bacterial Blight Stress. Frontiers in Plant Science, 2019, 10, 193.	3.6	30
29	Plantâ€“microbe interaction: prospects for crop improvement and management. Plant Physiology Reports, 2019, 24, 461-462.	1.5	9
30	Plant-pathogen interaction in the presence of abiotic stress: What do we know about plant responses?. Plant Physiology Reports, 2019, 24, 541-549.	1.5	16
31	Arabidopsis exhibits differential response in basal immunity and proline metabolism during defense against host and nonhost pathogen infection. Plant Physiology Reports, 2019, 24, 496-506.	1.5	1
32	Perspectives on the utilization of resistance mechanisms from host and nonhost plants for durable protection of<i>Brassica</i>crops against Alternaria blight. PeerJ, 2019, 7, e7486.	2.0	17
33	Virusâ€induced gene silencing database for phenomics and functional genomics in <i>Nicotiana benthamiana</i>. Plant Direct, 2018, 2, e00055.	1.9	15
34	Morpho-Physiological Traits and Molecular Intricacies Associated with Tolerance to Combined Drought and Pathogen Stress in Plants. , 2018, , 59-74.		4
35	Two Chloroplast-Localized Proteins: AtNHR2A and AtNHR2B, Contribute to Callose Deposition During Nonhost Disease Resistance in <i>Arabidopsis</i>. Molecular Plant-Microbe Interactions, 2018, 31, 1280-1290.	2.6	22
36	Impact of Soil Moisture Regimes on Wilt Disease in Tomatoes: Current Understanding. , 2018, , 73-82.		2

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37	Possible strategies for establishment of VIGS protocol in chickpea. , 2018, , .		0
38	Current Understanding of Regulation of GBF3 Under Abiotic and Biotic Stresses and Its Potential Role in Combined Stress Tolerance. , 2018, , 267-272.		1
39	Transcriptomic changes under combined drought and nonhost bacteria reveal novel and robust defenses in Arabidopsis thaliana. Environmental and Experimental Botany, 2017, 139, 152-164.	4.2	13
40	GENERAL CONTROL NONREPRESSIBLE4 Degrades 14-3-3 and the RIN4 Complex to Regulate Stomatal Aperture with Implications on Nonhost Disease Resistance and Drought Tolerance. Plant Cell, 2017, 29, 2233-2248.	6.6	56
41	Transcriptome changes in Arabidopsis thaliana infected with Pseudomonas syringae during drought recovery. Scientific Reports, 2017, 7, 9124.	3.3	18
42	GBF3 transcription factor imparts drought tolerance in Arabidopsis thaliana. Scientific Reports, 2017, 7, 9148.	3.3	77
43	The small GTPase, nucleolar GTP-binding protein 1 (NOG1), has a novel role in plant innate immunity. Scientific Reports, 2017, 7, 9260.	3.3	27
44	Global profiling of phytohormone dynamics during combined drought and pathogen stress in Arabidopsis thaliana reveals ABA and JA as major regulators. Scientific Reports, 2017, 7, 4017.	3.3	105
45	Concurrent Drought Stress and Vascular Pathogen Infection Induce Common and Distinct Transcriptomic Responses in Chickpea. Frontiers in Plant Science, 2017, 8, 333.	3.6	39
46	Impact of Combined Abiotic and Biotic Stresses on Plant Growth and Avenues for Crop Improvement by Exploiting Physio-morphological Traits. Frontiers in Plant Science, 2017, 8, 537.	3.6	643
47	Concurrent Stresses Are Perceived as New State of Stress by the Plants: Overview of Impact of Abiotic and Biotic Stress Combinations. , 2017, , 1-15.		3
48	Tissue Water Status and Bacterial Pathogen Infection: How They Are Correlated?. , 2017, , 165-178.		3
49	Plant Responses to Combined Drought and Pathogen Infection: Current Understanding on the Role of Phytohormones. , 2017, , 133-149.		2
50	Global Transcriptional Analysis Reveals Unique and Shared Responses in Arabidopsis thaliana Exposed to Combined Drought and Pathogen Stress. Frontiers in Plant Science, 2016, 7, 686.	3.6	52
51	Drought Stress Predominantly Endures Arabidopsis thaliana to Pseudomonas syringae Infection. Frontiers in Plant Science, 2016, 7, 808.	3.6	51
52	Understanding the Impact of Drought on Foliar and Xylem Invading Bacterial Pathogen Stress in Chickpea. Frontiers in Plant Science, 2016, 7, 902.	3.6	53
53	Tailored Responses to Simultaneous Drought Stress and Pathogen Infection in Plants. , 2016, , 427-438.		17
54	Transcriptome Analysis of Sunflower Genotypes with Contrasting Oxidative Stress Tolerance Reveals Individual- and Combined- Biotic and Abiotic Stress Tolerance Mechanisms. PLoS ONE, 2016, 11, e0157522.	2.5	77

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55	Plant and pathogen nutrient acquisition strategies. Frontiers in Plant Science, 2015, 6, 750.	3.6	145
56	Role of proline and pyrroline-5-carboxylate metabolism in plant defense against invading pathogens. Frontiers in Plant Science, 2015, 6, 503.	3.6	102
57	Shared and unique responses of plants to multiple individual stresses and stress combinations: physiological and molecular mechanisms. Frontiers in Plant Science, 2015, 6, 723.	3.6	409
58	Impact of Concurrent Drought Stress and Pathogen Infection on Plants. , 2015, , 203-222.		18
59	The interactive effects of simultaneous biotic and abiotic stresses on plants: Mechanistic understanding from drought and pathogen combination. Journal of Plant Physiology, 2015, 176, 47-54.	3.5	493
60	Plant Ribosomal Proteins, RPL12 and RPL19, Play a Role in Nonhost Disease Resistance against Bacterial Pathogens. Frontiers in Plant Science, 2015, 6, 1192.	3.6	71
61	Advances in Plant Gene Silencing Methods. Methods in Molecular Biology, 2015, 1287, 3-23.	0.9	15
62	Stable Expression of mtlD Gene Imparts Multiple Stress Tolerance in Finger Millet. PLoS ONE, 2014, 9, e99110.	2.5	81
63	Comprehensive analysis of small RNA-seq data reveals that combination of miRNA with its isomiRs increase the accuracy of target prediction in <i>Arabidopsis thaliana</i>. RNA Biology, 2014, 11, 1414-1429.	3.1	46
64	Virus-induced gene silencing is a versatile tool for unraveling the functional relevance of multiple abiotic-stress-responsive genes in crop plants. Frontiers in Plant Science, 2014, 5, 323.	3.6	114
65	Regulation of primary plant metabolism during plant-pathogen interactions and its contribution to plant defense. Frontiers in Plant Science, 2014, 5, 17.	3.6	554
66	Tobacco rattle virusâ€“based virus-induced gene silencing in Nicotiana benthamiana. Nature Protocols, 2014, 9, 1549-1562.	12.0	283
67	A high-throughput virus-induced gene silencing protocol identifies genes involved in multi-stress tolerance. BMC Plant Biology, 2013, 13, 193.	3.6	31
68	<i><i>AtCYP710A1</i></i>gene-mediated stigmasterol production plays a role in imparting temperature stress tolerance in<i><i>Arabidopsis thaliana</i></i>. Plant Signaling and Behavior, 2013, 8, e23142.	2.4	40
69	Nonhost Resistance Against Bacterial Pathogens: Retrospectives and Prospects. Annual Review of Phytopathology, 2013, 51, 407-427.	7.8	149
70	Drought Stress Acclimation Imparts Tolerance to Sclerotinia sclerotiorum and Pseudomonas syringae in Nicotiana benthamiana. International Journal of Molecular Sciences, 2013, 14, 9497-9513.	4.1	95
71	VIGS-Mediated Forward Genetics Screening for Identification of Genes Involved in Nonhost Resistance. Journal of Visualized Experiments, 2013, , e51033.	0.3	14
72	Glycolate Oxidase Modulates Reactive Oxygen Speciesâ€“Mediated Signal Transduction during Nonhost Resistance in <i>Nicotiana benthamiana</i> and <i>Arabidopsis</i> Â. Plant Cell, 2012, 24, 336-352.	6.6	215

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73	Phytosterols Play a Key Role in Plant Innate Immunity against Bacterial Pathogens by Regulating Nutrient Efflux into the Apoplast Â Â Â. Plant Physiology, 2012, 158, 1789-1802.	4.8	146
74	Ornithineâ€deltaâ€aminotransferase and proline dehydrogenase genes play a role in nonâ€host disease resistance by regulating pyrrolineâ€5â€carboxylate metabolismâ€induced hypersensitive response. Plant, Cell and Environment, 2012, 35, 1329-1343.	5.7	93
75	Expression of a Finger Millet Transcription Factor, EcNAC1, in Tobacco Confers Abiotic Stress-Tolerance. PLoS ONE, 2012, 7, e40397.	2.5	83
76	Caveat of RNAi in Plants: The Off-Target Effect. Methods in Molecular Biology, 2011, 744, 13-25.	0.9	76
77	Agroinoculation and Agroinfiltration: Simple Tools for Complex Gene Function Analyses. Methods in Molecular Biology, 2011, 678, 65-76.	0.9	57
78	New dimensions for VIGS in plant functional genomics. Trends in Plant Science, 2011, 16, 656-665.	8.8	279
79	Virusâ€induced gene silencing can persist for more than 2â€ƒyears and also be transmitted to progeny seedlings in <i>Nicotiana benthamiana</i> and tomato. Plant Biotechnology Journal, 2011, 9, 797-806.	8.3	108
80	Functional characterization of three water deficit stress-induced genes in tobacco and Arabidopsis: An approach based on gene down regulation. Plant Physiology and Biochemistry, 2010, 48, 35-44.	5.8	39
81	Assessing functional role of three water deficit stress-induced genes in nonhost disease resistance using virus-induced gene silencing in<i>Nicotiana benthamiana</i>. Plant Signaling and Behavior, 2010, 5, 586-590.	2.4	27
82	Functional Characterization of Water-Deficit Stress Responsive Genes Using RNAi. Methods in Molecular Biology, 2010, 639, 193-206.	0.9	3
83	Identification and functional validation of a unique set of drought induced genes preferentially expressed in response to gradual water stress in peanut. Molecular Genetics and Genomics, 2009, 281, 591-605.	2.1	110
84	Virus-induced gene silencing and its application in characterizing genes involved in water-deficit-stress tolerance. Journal of Plant Physiology, 2008, 165, 1404-1421.	3.5	44
85	Assessment of variability in acquired thermotolerance: Potential option to study genotypic response and the relevance of stress genes. Journal of Plant Physiology, 2007, 164, 111-125.	3.5	63
86	A systematic study to determine the extent of gene silencing in <i>Nicotiana benthamiana </i>and other Solanaceae species when heterologous gene sequences are used for virusâ€induced gene silencing. New Phytologist, 2007, 176, 782-791.	7.3	118
87	Functional characterization of Nicotiana benthamiana homologs of peanut water deficit-induced genes by virus-induced gene silencing. Planta, 2007, 225, 523-539.	3.2	52
88	Chlamydomonas reinhardtii, a model system for functional validation of abiotic stress responsive genes. Planta, 2007, 226, 655-670.	3.2	86
89	High-throughput virus-induced gene-silencing approach to assess the functional relevance of a moisture stress-induced cDNA homologous to lea4. Journal of Experimental Botany, 2006, 57, 2291-2302.	4.8	38
90	Screening of inbred lines to develop a thermotolerant sunflower hybrid using the temperature induction response (TIR) technique: a novel approach by exploiting residual variability. Journal of Experimental Botany, 2003, 54, 2569-2578.	4.8	56

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91	Virus-induced gene silencing and its applications.. CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources, 0, , .	1.0	13