Michael J Holdsworth

List of Publications by Year
in descending order

94 papers	10,367 citations	30070 54 h-index	40979 93 g-index
96 all docs	96 docs citations	96 times ranked	9686 citing authors

#	Article	IF	Citations
1	Molecular networks regulating Arabidopsis seed maturation, afterâ€ripening, dormancy and germination. New Phytologist, 2008, 179, 33-54.	7.3	794
2	Homeostatic response to hypoxia is regulated by the N-end rule pathway in plants. Nature, 2011, 479, 415-418.	27.8	576
3	Arabidopsis PYR/PYL/RCAR Receptors Play a Major Role in Quantitative Regulation of Stomatal Aperture and Transcriptional Response to Abscisic Acid. Plant Cell, 2012, 24, 2483-2496.	6.6	493
4	Making sense of low oxygen sensing. Trends in Plant Science, 2012, 17, 129-138.	8.8	465
5	Identifying traits to improve the nitrogen economy of wheat: Recent advances and future prospects. Field Crops Research, 2009, 114, 329-342.	5.1	316
6	Nitric Oxide Sensing in Plants Is Mediated by Proteolytic Control of Group VII ERF Transcription Factors. Molecular Cell, 2014, 53, 369-379.	9.7	312
7	Control of germination and lipid mobilization by COMATOSE, the Arabidopsis homologue of human ALDP. EMBO Journal, 2002, 21, 2912-2922.	7.8	280
8	Jasmonic Acid Levels Are Reduced in COMATOSE ATP-Binding Cassette Transporter Mutants. Implications for Transport of Jasmonate Precursors into Peroxisomes. Plant Physiology, 2005, 137, 835-840.	4.8	248
9	Chewing the fat: Î²-oxidation in signalling and development. Trends in Plant Science, 2006, 11, 124-132.	8.8	237
10	Interactions of the developmental regulator ABI3 with proteins identified from developing Arabidopsis seeds. Plant Journal, 2000, 21, 143-155.	5.7	210
11	Genome-wide network model capturing seed germination reveals coordinated regulation of plant cellular phase transitions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9709-9714.	7.1	210
12	Post-genomics dissection of seed dormancy and germination. Trends in Plant Science, 2008, 13, 7-13.	8.8	205
13	Ethylene-mediated nitric oxide depletion pre-adapts plants to hypoxia stress. Nature Communications, 2019, 10, 4020.	12.8	195
14	Separate cis sequences and trans factors direct metabolic and developmental regulation of a potato tuber storage protein gene. Plant Journal, 1994, 5, 815-826.	5.7	176
15	Transcriptional Dynamics of Two Seed Compartments with Opposing Roles in Arabidopsis Seed Germination Â Â. Plant Physiology, 2013, 163, 205-215.	4.8	175
16	The N-end rule pathway promotes seed germination and establishment through removal of ABA sensitivity in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4549-4554.	7.1	172
17	Mechanical constraints imposed by 3D cellular geometry and arrangement modulate growth patterns in the Arabidopsis embryo. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8685-8690.	7.1	172
18	The eukaryotic N-end rule pathway: conserved mechanisms and diverse functions. Trends in Cell Biology, 2014, 24, 603-611.	7.9	171

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19	Structure and expression of an ethylene-related mRNA from tomato. Nucleic Acids Research, 1987, 15, 731-739.	14.5	169
20	Seed afterâ€ripening is a discrete developmental pathway associated with specific gene networks in Arabidopsis. Plant Journal, 2008, 53, 214-224.	5.7	166
21	SHORT-ROOT Regulates Primary, Lateral, and Adventitious Root Development in Arabidopsis Â Â Â. Plant Physiology, 2011, 155, 384-398.	4.8	163
22	A thermodynamic switch modulates abscisic acid receptor sensitivity. EMBO Journal, 2011, 30, 4171-4184.	7.8	161
23	The Scope, Functions, and Dynamics of Posttranslational Protein Modifications. Annual Review of Plant Biology, 2019, 70, 119-151.	18.7	158
24	Group VII Ethylene Response Factors Coordinate Oxygen and Nitric Oxide Signal Transduction and Stress Responses in Plants. Plant Physiology, 2015, 169, 23-31.	4.8	156
25	Geminiviruses and RNA silencing. Trends in Plant Science, 2005, 10, 144-151.	8.8	153
26	Mapping genes for resistance to sprouting damage in wheat. Euphytica, 2002, 126, 39-45.	1.2	149
27	Transgenesis has less impact on the transcriptome of wheat grain than conventional breeding. Plant Biotechnology Journal, 2006, 4, 369-380.	8.3	146
28	Community recommendations on terminology and procedures used in flooding and low oxygen stress research. New Phytologist, 2017, 214, 1403-1407.	7.3	146
29	Transcripts of Vp-1 homeologues are misspliced in modern wheat and ancestral species. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10203-10208.	7.1	143
30	Oxygen Sensing Coordinates Photomorphogenesis to Facilitate Seedling Survival. Current Biology, 2015, 25, 1483-1488.	3.9	131
31	Genetic map locations for orthologous Vp1 genes in wheat and rice. Theoretical and Applied Genetics, 1999, 98, 281-284.	3.6	129
32	Large-Scale Identification of Gibberellin-Related Transcription Factors Defines Group VII ETHYLENE RESPONSE FACTORS as Functional DELLA Partners. Plant Physiology, 2014, 166, 1022-1032.	4.8	124
33	Enhanced waterlogging tolerance in barley by manipulation of expression of the Nâ€end rule pathway E3 ligase <scp>PROTEOLYSIS</scp>6. Plant Biotechnology Journal, 2016, 14, 40-50.	8.3	122
34	Mathematical modeling elucidates the role of transcriptional feedback in gibberellin signaling. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7571-7576.	7.1	119
35	The Cys-Arg/N-End Rule Pathway Is a General Sensor of Abiotic Stress in Flowering Plants. Current Biology, 2017, 27, 3183-3190.e4.	3.9	118
36	Molecular and genetic mechanisms regulating the transition from embryo development to germination. Trends in Plant Science, 1999, 4, 275-280.	8.8	107

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37	Nicotinamidase activity is important for germination. Plant Journal, 2007, 51, 341-351.	5.7	106
38	Peroxisomal ABC transporters. FEBS Letters, 2006, 580, 1139-1155.	2.8	103
39	Genotype and environment interact to control dormancy and differential expression of the VIVIPAROUS 1 homologue in embryos of Avena fatua. Plant Journal, 1997, 12, 911-920.	5.7	93
40	ABI3 emerges from the seed. Trends in Plant Science, 2000, 5, 418-419.	8.8	91
41	Functional Network Construction in Arabidopsis Using Rule-Based Machine Learning on Large-Scale Data Sets Â Â. Plant Cell, 2011, 23, 3101-3116.	6.6	91
42	Gene Expression Profiling Reveals Defined Functions of the ATP-Binding Cassette Transporter COMATOSE Late in Phase II of Germination. Plant Physiology, 2007, 143, 1669-1679.	4.8	90
43	The COMATOSE ATP-Binding Cassette Transporter Is Required for Full Fertility in Arabidopsis. Plant Physiology, 2007, 144, 1467-1480.	4.8	85
44	Oxygen-dependent proteolysis regulates the stability of angiosperm polycomb repressive complex 2 subunit VERNALIZATIONÂ2. Nature Communications, 2018, 9, 5438.	12.8	81
45	Every Breath You Take: New Insights into Plant and Animal Oxygen Sensing. Cell, 2020, 180, 22-24.	28.9	78
46	An analysis of dormancy, ABA responsiveness, after-ripening and pre-harvest sprouting in hexaploid wheat (Triticum aestivum L.) caryopses. Journal of Experimental Botany, 2010, 61, 597-607.	4.8	75
47	Hypoxia response in Arabidopsis roots infected by Plasmodiophora brassicae supports the development of clubroot. BMC Plant Biology, 2016, 16, 251.	3.6	71
48	Organisation and expression of a wound/ripening-related small multigene family from tomato. Plant Molecular Biology, 1988, 11, 81-88.	3.9	69
49	REGIA, An EU Project on Functional Genomics of Transcription Factors fromArabidopsis thaliana. Comparative and Functional Genomics, 2002, 3, 102-108.	2.0	69
50	A Regulatory Module Controlling GA-Mediated Endosperm Cell Expansion Is Critical for Seed Germination in Arabidopsis. Molecular Plant, 2019, 12, 71-85.	8.3	69
51	Promotion of Testa Rupture during Garden Cress Germination Involves Seed Compartment-Specific Expression and Activity of Pectin Methylesterases Â. Plant Physiology, 2014, 167, 200-215.	4.8	64
52	A transcriptomics resource for wheat functional genomics. Plant Biotechnology Journal, 2004, 2, 495-506.	8.3	60
53	Analysis of the role of COMATOSE and peroxisomal beta-oxidation in the determination of germination potential in Arabidopsis. Journal of Experimental Botany, 2006, 57, 2805-2814.	4.8	60
54	Distinct branches of the Nâ€end rule pathway modulate the plant immune response. New Phytologist, 2019, 221, 988-1000.	7.3	59

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55	From start to finish: aminoâ€terminal protein modifications as degradation signals in plants. New Phytologist, 2016, 211, 1188-1194.	7.3	53
56	The wheatPhs-A1pre-harvest sprouting resistance locus delays the rate of seed dormancy loss and maps 0.3 cM distal to thePM19genes in UK germplasm. Journal of Experimental Botany, 2016, 67, 4169-4178.	4.8	53
57	The plant Nâ€degron pathways of ubiquitinâ€mediated proteolysis. Journal of Integrative Plant Biology, 2020, 62, 70-89.	8.5	51
58	Site-specific binding of a nuclear factor to the carrot extensin gene is influenced by both ethylene and wounding. Planta, 1989, 179, 17-23.	3.2	47
59	The Wheat Transcriptional Activator SPA: A Seed-Specific bZIP Protein That Recognizes the GCN4-Like Motif in the Bifactorial Endosperm Box of Prolamin Genes. Plant Cell, 1997, 9, 171.	6.6	47
60	Identification and analysis of proteins that interact with the Avena fatua homologue of the maize transcription factor VIVIPAROUS 1. Plant Journal, 2000, 21, 133-142.	5.7	46
61	Nâ€terminomics reveals control of Arabidopsis seed storage proteins and proteases by the Arg/Nâ€end rule pathway. New Phytologist, 2018, 218, 1106-1126.	7.3	44
62	Nucleotide sequence of an ethylene-related gene from tomato. Nucleic Acids Research, 1987, 15, 10600-10600.	14.5	43
63	Mutations in the Arabidopsis Peroxisomal ABC Transporter COMATOSE Allow Differentiation between Multiple Functions In Planta: Insights from an Allelic Series. Molecular Biology of the Cell, 2009, 20, 530-543.	2.1	43
64	Comparative Biology of Oxygen Sensing in Plants andÂAnimals. Current Biology, 2020, 30, R362-R369.	3.9	43
65	The maize transcription factor Opaque-2 activates a wheat glutenin promoter in plant and yeast cells. Plant Molecular Biology, 1995, 29, 711-720.	3.9	36
66	Transcriptional control of plant storage protein genes. Philosophical Transactions of the Royal Society B: Biological Sciences, 1993, 342, 209-215.	4.0	33
67	Transcripts of Vp-1 homoeologues are alternatively spliced within the Triticeae tribe. Euphytica, 2005, 143, 243-246.	1.2	32
68	An oxygen-sensing mechanism for angiosperm adaptation to altitude. Nature, 2022, 606, 565-569.	27.8	31
69	Axisymmetric indentation of curved elastic membranes by a convex rigid indenter. International Journal of Non-Linear Mechanics, 2011, 46, 1128-1138.	2.6	30
70	Multi-omics analysis identifies genes mediating the extension of cell walls in the Arabidopsis thaliana root elongation zone. Frontiers in Cell and Developmental Biology, 2015, 3, 10.	3.7	30
71	Dormant and after-Ripened Arabidopsis thaliana Seeds are Distinguished by Early Transcriptional Differences in the Imbibed State. Frontiers in Plant Science, 2016, 7, 1323.	3.6	30
72	DNA-binding properties of cloned TATA-binding protein from potato tubers. Plant Molecular Biology, 1992, 19, 455-464.	3.9	27

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73	Barley has two peroxisomal ABC transporters with multiple functions in Î²-oxidation. Journal of Experimental Botany, 2014, 65, 4833-4847.	4.8	26
74	The PRT6 Nâ€degron pathway restricts VERNALIZATION 2 to endogenous hypoxic niches to modulate plant development. New Phytologist, 2021, 229, 126-139.	7.3	26
75	Sumoylation and phosphorylation: hidden and overt links. Journal of Experimental Botany, 2018, 69, 4583-4590.	4.8	24
76	Mitochondrial retrograde signaling through UCP1-mediated inhibition of the plant oxygen-sensing pathway. Current Biology, 2022, 32, 1403-1411.e4.	3.9	23
77	Genetic interactions between ABA signalling and the Arg/N-end rule pathway during Arabidopsis seedling establishment. Scientific Reports, 2018, 8, 15192.	3.3	20
78	Amplification and Detection of Transposon Insertion Flanking Sequences Using Fluorescent MuAFLP. BioTechniques, 2002, 32, 1090-1097.	1.8	19
79	Genetic control mechanisms regulating the initiation of germination. Journal of Plant Physiology, 2001, 158, 439-445.	3.5	17
80	Use of comparative molecular genetics to study pre harvest sprouting in wheat. Euphytica, 2002, 126, 27-33.	1.2	16
81	Allelic shift in cis-elements of the transcription factor RAP2.12 underlies adaptation associated with humidity in Arabidopsis thaliana. Science Advances, 2022, 8, eabn8281.	10.3	15
82	Identification of a wound-induced inhibitor of a nuclear factor that binds the carrot extensin gene. Planta, 1989, 180, 74-81.	3.2	12
83	The Arabidopsis thaliana Nâ€recognin E3 ligase PROTEOLYSIS1 influences the immune response. Plant Direct, 2019, 3, e00194.	1.9	12
84	Statistical evaluation of transcriptomic data generated using the Affymetrix one-cycle, two-cycle and IVT-Express RNA labelling protocols with the Arabidopsis ATH1 microarray. Plant Methods, 2010, 6, 9.	4.3	11
85	First hints of new sensors. Nature Plants, 2017, 3, 767-768.	9.3	10
86	The NBDs that wouldn't die. Communicative and Integrative Biology, 2009, 2, 97-99.	1.4	8
87	Plant proteostasis â€“ shaping the proteome: a research community aiming to understand molecular mechanisms that control protein abundance. New Phytologist, 2020, 227, 1028-1033.	7.3	7
88	The NBDs that wouldn't die: A cautionary tale of the use of isolated nucleotide binding domains of ABC transporters. Communicative and Integrative Biology, 2009, 2, 97-9.	1.4	6
89	Finite indentation of highly curved elastic shells. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20170482.	2.1	5
90	Identification of Transposon-Tagged Maize Genes Displaying Homology to Arrayed cDNA Clones with the Use of Mutator Insertion Display. Journal of Genome Science and Technology, 2002, 1, 48-55.	0.5	3

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91	Conserved Mechanisms of Dormancy and Germination as Targets for Manipulation of Agricultural Problems. , 2006, , 11-32.		2
92	A Yeast-Based Functional Assay to Study Plant N-Degron â€“ N-Recognin Interactions. Frontiers in Plant Science, 2021, 12, 806129.	3.6	2
93	N-term 2017: Proteostasis via the N-terminus. Trends in Biochemical Sciences, 2019, 44, 293-295.	7.5	1
94	Seed Bioinformatics. Methods in Molecular Biology, 2011, 773, 403-419.	0.9	1