Neil J Shirley

List of Publications by Year
in descending order

80 papers	6,083 citations	101543 36 h-index	74163 75 g-index
82 all docs	82 docs citations	82 times ranked	7483 citing authors

#	Article	IF	Citations
1	Transcriptomics technologies. PLoS Computational Biology, 2017, 13, e1005457.	3.2	677
2	The pineapple genome and the evolution of CAM photosynthesis. Nature Genetics, 2015, 47, 1435-1442.	21.4	472
3	Cellulose Synthase-Like CslF Genes Mediate the Synthesis of Cell Wall (1,3;1,4)-Â-D-Glucans. Science, 2006, 311, 1940-1942.	12.6	422
4	Improvement of stress tolerance of wheat and barley by modulation of expression of DREB/CBF factors. Plant Biotechnology Journal, 2011, 9, 230-249.	8.3	389
5	The Plant Cell Wall: A Complex and Dynamic Structure As Revealed by the Responses of Genes under Stress Conditions. Frontiers in Plant Science, 2016, 7, 984.	3.6	328
6	The CesA Gene Family of Barley. Quantitative Analysis of Transcripts Reveals Two Groups of Co-Expressed Genes. Plant Physiology, 2004, 134, 224-236.	4.8	275
7	The Genetics and Transcriptional Profiles of the Cellulose Synthase-Like <i>HvCslF</i> Gene Family in Barley. Plant Physiology, 2008, 146, 1821-1833.	4.8	204
8	A Two-Staged Model of Na+ Exclusion in Rice Explained by 3D Modeling of HKT Transporters and Alternative Splicing. PLoS ONE, 2012, 7, e39865.	2.5	193
9	Overâ€expression of specific <i>HvCslF</i> cellulose synthaseâ€like genes in transgenic barley increases the levels of cell wall (1,3;1,4)â€Î²â€<scp>d</scp>â€glucans and alters their fine structure. Plant Biotechnology Journal, 2011, 9, 117-135.	8.3	171
10	Metabolite Profiling Reveals Distinct Changes in Carbon and Nitrogen Metabolism in Phosphate-Deficient Barley Plants (Hordeum vulgare L.). Plant and Cell Physiology, 2008, 49, 691-703.	3.1	169
11	Nuisance Proteins of Wine Are Grape Pathogenesis-Related Proteins. Journal of Agricultural and Food Chemistry, 1996, 44, 3-5.	5.2	164
12	Improved Salinity Tolerance of Rice Through Cell Type-Specific Expression of AtHKT1;1. PLoS ONE, 2010, 5, e12571.	2.5	140
13	Barley Î²-D-Glucan Exohydrolases with Î²-D-Glucosidase Activity. Journal of Biological Chemistry, 1996, 271, 5277-5286.	3.4	137
14	Revised Phylogeny of the <i>Cellulose Synthase</i> Gene Superfamily: Insights into Cell Wall Evolution. Plant Physiology, 2018, 177, 1124-1141.	4.8	118
15	Increased expression of six <i>ZIP</i> family genes by zinc (Zn) deficiency is associated with enhanced uptake and rootâ€toâ€shoot translocation of Zn in barley (<i>Hordeum vulgare</i>). New Phytologist, 2015, 207, 1097-1109.	7.3	114
16	The response of the maize nitrate transport system to nitrogen demand and supply across the lifecycle. New Phytologist, 2013, 198, 82-94.	7.3	108
17	Phosphate Utilization Efficiency Correlates with Expression of Low-Affinity Phosphate Transporters and Noncoding RNA, <i>IPS1</i>, in Barley Â. Plant Physiology, 2011, 156, 1217-1229.	4.8	105
18	<scp><i>EPSPS</i></scp> gene amplification in glyphosateâ€resistant <i>Bromus diandrus</i>. Pest Management Science, 2016, 72, 81-88.	3.4	84

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19	Microarray expression analysis of meiosis and microsporogenesis in hexaploid bread wheat. BMC Genomics, 2006, 7, 267.	2.8	82
20	Discovery of Cyclotide-Like Protein Sequences in Graminaceous Crop Plants: Ancestral Precursors of Circular Proteins?. Plant Cell, 2006, 18, 2134-2144.	6.6	70
21	Exploring the Role of Cell Wall-Related Genes and Polysaccharides during Plant Development. Plants, 2018, 7, 42.	3.5	60
22	A genome wide association scan for (1,3;1,4)-Î²-glucan content in the grain of contemporary 2-row Spring and Winter barleys. BMC Genomics, 2014, 15, 907.	2.8	57
23	Evolutionary Dynamics of the Cellulose Synthase Gene Superfamily in Grasses. Plant Physiology, 2015, 168, 968-983.	4.8	55
24	Gene Structure and Expression Pattern Analysis of Three Monodehydroascorbate Reductase (Mdhar) Genes in Physcomitrella patens: Implications for the Evolution of the MDHAR Family in Plants*. Plant Molecular Biology, 2006, 60, 259-275.	3.9	53
25	Powerful regulatory systems and post-transcriptional gene silencing resist increases in cellulose content in cell walls of barley. BMC Plant Biology, 2015, 15, 62.	3.6	52
26	Isolation of plant transcription factors using a modified yeast one-hybrid system. Plant Methods, 2006, 2, 3.	4.3	51
27	Pattern of Deposition of Cell Wall Polysaccharides and Transcript Abundance of Related Cell Wall Synthesis Genes during Differentiation in Barley Endosperm. Plant Physiology, 2012, 159, 655-670.	4.8	50
28	Spatial gradients in cell wall composition and transcriptional profiles along elongating maize internodes. BMC Plant Biology, 2014, 14, 27.	3.6	50
29	Grain development in Brachypodium and other grasses: possible interactions between cell expansion, starch deposition, and cell-wall synthesis. Journal of Experimental Botany, 2013, 64, 5033-5047.	4.8	48
30	Defensin promoters as potential tools for engineering disease resistance in cereal grains. Plant Biotechnology Journal, 2010, 8, 47-64.	8.3	47
31	The Dynamics of Transcript Abundance during Cellularization of Developing Barley Endosperm. Plant Physiology, 2016, 170, 1549-1565.	4.8	47
32	Gene expression patterns and catalytic properties of UDP-D-glucose 4-epimerases from barley (Hordeum vulgare L.). Biochemical Journal, 2006, 394, 115-124.	3.7	46
33	Differences in glycosyltransferase family 61 accompany variation in seed coat mucilage composition in<i>Plantago</i>spp.. Journal of Experimental Botany, 2016, 67, 6481-6495.	4.8	46
34	Downâ€regulation of the <i>glucan synthaseâ€like 6</i> gene (<i>HvGsl6</i>) in barley leads to decreased callose accumulation and increased cell wall penetration by <i>Blumeria graminis</i> f. sp. <i>hordei</i>. New Phytologist, 2016, 212, 434-443.	7.3	41
35	The dynamics of cereal cyst nematode infection differ between susceptible and resistant barley cultivars and lead to changes in (1,3;1,4)â€Î²â€glucan levels and <scp><i>HvCslF</i></scp> gene transcript abundance. New Phytologist, 2015, 207, 135-147.	7.3	40
36	Spatial and temporal expression of endosperm transfer cellâ€specific promoters in transgenic rice and barley. Plant Biotechnology Journal, 2008, 6, 465-476.	8.3	38

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37	Temperature influences the level of glyphosate resistance in barnyardgrass (<i>Echinochloa) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	3.4	38
38	Translating auxin responses into ovules, seeds and yield: Insight from Arabidopsis and the cereals. Journal of Integrative Plant Biology, 2019, 61, 310-336.	8.5	38
39	A Customized Gene Expression Microarray Reveals That the Brittle Stem Phenotype <i>fs2</i> of Barley Is Attributable to a Retroelement in the <i>HvCesA4</i> Cellulose Synthase Gene Â Â. Plant Physiology, 2010, 153, 1716-1728.	4.8	37
40	The CELLULOSE-SYNTHASE LIKE C (CSLC) Family of Barley Includes Members that Are Integral Membrane Proteins Targeted to the Plasma Membrane. Molecular Plant, 2009, 2, 1025-1039.	8.3	36
41	Endo-(1,4)-Î²-Glucanase gene families in the grasses: temporal and spatial Co-transcription of orthologous genes1. BMC Plant Biology, 2012, 12, 235.	3.6	35
42	Expression of vacuolar H+-pyrophosphatase (OVP3) is under control of an anoxia-inducible promoter in rice. Plant Molecular Biology, 2010, 72, 47-60.	3.9	34
43	Complex Regulation by Apetala2 Domain-Containing Transcription Factors Revealed through Analysis of the Stress-Responsive TdCor410b Promoter from Durum Wheat. PLoS ONE, 2013, 8, e58713.	2.5	34
44	Distribution, structure and biosynthetic gene families of (1,3;1,4)â€Î²â€glucan in <i>Sorghum bicolor</i>. Journal of Integrative Plant Biology, 2015, 57, 429-445.	8.5	33
45	Identification and characterisation of barley (Hordeum vulgare) respiratory burst oxidase homologue family members. Functional Plant Biology, 2008, 35, 347.	2.1	31
46	Altered Expression of Genes Implicated in Xylan Biosynthesis Affects Penetration Resistance against Powdery Mildew. Frontiers in Plant Science, 2017, 8, 445.	3.6	30
47	Characterization and Expression Patterns of UDP-d-Glucuronate Decarboxylase Genes in Barley. Plant Physiology, 2005, 138, 131-141.	4.8	29
48	Clusters of genes encoding fructan biosynthesizing enzymes in wheat and barley. Plant Molecular Biology, 2012, 80, 299-314.	3.9	29
49	A Genome Wide Association Study of arabinoxylan content in 2-row spring barley grain. PLoS ONE, 2017, 12, e0182537.	2.5	29
50	Asexual Female Gametogenesis Involves Contact with a Sexually-Fated Megaspore in Apomictic <i>Hieracium</i>. Plant Physiology, 2018, 177, 1027-1049.	4.8	28
51	Differences in hydrolytic enzyme activity accompany natural variation in mature aleurone morphology in barley (Hordeum vulgare L.). Scientific Reports, 2018, 8, 11025.	3.3	25
52	A Novel (1,4)-Î²-Linked Glucoxylan Is Synthesized by Members of the <i>Cellulose Synthase-Like F</i> Gene Family in Land Plants. ACS Central Science, 2019, 5, 73-84.	11.3	25
53	Morphology, Carbohydrate Distribution, Gene Expression, and Enzymatic Activities Related to Cell Wall Hydrolysis in Four Barley Varieties during Simulated Malting. Frontiers in Plant Science, 2017, 8, 1872.	3.6	24
54	Probing the hammerhead ribozyme structure with ribonucleases. Nucleic Acids Research, 1994, 22, 1620-1625.	14.5	21

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55	Dissecting the Genetic Basis for Seed Coat Mucilage Heteroxylan Biosynthesis in Plantago ovata Using Gamma Irradiation and Infrared Spectroscopy. Frontiers in Plant Science, 2017, 8, 326.	3.6	20
56	Analysis of the (1,3)-Î²-d-glucan synthase gene family of barley. Phytochemistry, 2009, 70, 713-720.	2.9	19
57	Overexpression of HvCslF6 in barley grain alters carbohydrate partitioning plus transfer tissue and endosperm development. Journal of Experimental Botany, 2020, 71, 138-153.	4.8	18
58	Systematic identification of factors involved in post-transcriptional processes in wheat grain. Plant Molecular Biology, 2006, 62, 637-653.	3.9	17
59	Cell Wall Modifications in Maize Pulvini in Response to Gravitational Stress Â Â. Plant Physiology, 2011, 156, 2155-2171.	4.8	17
60	Characterization of the wheat gene encoding a grain-specific lipid transfer protein TdPR61, and promoter activity in wheat, barley and rice. Journal of Experimental Botany, 2012, 63, 2025-2040.	4.8	17
61	Differential expression of the HvCslF6 gene late in grain development may explain quantitative differences in (1,3;1,4)-Î²-glucan concentration in barley. Molecular Breeding, 2015, 35, 20.	2.1	17
62	Another building block in the plant cell wall: Barley xyloglucan xyloglucosyl transferases link covalently xyloglucan and anionic oligosaccharides derived from pectin. Plant Journal, 2020, 104, 752-767.	5.7	17
63	Genetics and physiology of cell wall polysaccharides in the model C4 grass, Setaria viridis spp. BMC Plant Biology, 2015, 15, 236.	3.6	16
64	Auxin Treatment Enhances Anthocyanin Production in the Non-Climacteric Sweet Cherry (Prunus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	4.1	16
65	The Genetics, Transcriptional Profiles, and Catalytic Properties of UDP-<i>Î±</i>-<scp>d</scp>-Xylose 4-Epimerases from Barley Â. Plant Physiology, 2010, 153, 555-568.	4.8	15
66	The scutellar vascular bundleâ€"specific promoter of the wheat HDâ€Zip IV transcription factor shows similar spatial and temporal activity in transgenic wheat, barley and rice. Plant Biotechnology Journal, 2012, 10, 43-53.	8.3	15
67	HvLEAFY controls the early stages of floral organ specification and inhibits the formation of multiple ovaries in barley. Plant Journal, 2021, 108, 509-527.	5.7	15
68	Transcript Profiling of MIKCc MADS-Box Genes Reveals Conserved and Novel Roles in Barley Inflorescence Development. Frontiers in Plant Science, 2021, 12, 705286.	3.6	15
69	Phylogenetic analysis and functional characterisation of strictosidine synthase-like genes in Arabidopsis thaliana. Functional Plant Biology, 2009, 36, 1098.	2.1	13
70	Genetics, Transcriptional Profiles, and Catalytic Properties of the UDP-Arabinose Mutase Family from Barley. Biochemistry, 2016, 55, 322-334.	2.5	13
71	Combining transcriptional datasets using the generalized singular value decomposition. BMC Bioinformatics, 2008, 9, 335.	2.6	11
72	Analysis of cell wall synthesis and metabolism during early germination of Blumeria graminis f. sp. hordei conidial cells induced in vitro. Cell Surface, 2019, 5, 100030.	3.0	11

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73	Carbon Flux and Carbohydrate Gene Families in Pineapple. Tropical Plant Biology, 2016, 9, 200-213.	1.9	8
74	Composition and biosynthetic machinery of the Blumeria graminis f. sp. hordei conidia cell wall. Cell Surface, 2019, 5, 100029.	3.0	7
75	Expression patterns and protein structure of a lipid transfer protein END1 from Arabidopsis. Planta, 2014, 240, 1319-1334.	3.2	6
76	Wheat wounding-responsive HD-Zip IV transcription factor GL7 is predominantly expressed in grain and activates genes encoding defensins. Plant Molecular Biology, 2019, 101, 41-61.	3.9	6
77	Prospecting for Energy-Rich Renewable Raw Materials: Sorghum Stem Case Study. PLoS ONE, 2016, 11, e0156638.	2.5	6
78	Evidence for multiple interspecific hybridization in sensu stricto species. FEMS Yeast Research, 2002, 1, 323-331.	2.3	5
79	Phylogenomic Analyses of Nucleotide-Sugar Biosynthetic and Interconverting Enzymes Illuminate Cell Wall Composition in Fungi. MBio, 2021, 12, .	4.1	4
80	Identification and spatio-temporal expression analysis of barley genes that encode putative modular xylanolytic enzymes. Plant Science, 2021, 308, 110792.	3.6	0