Neil J Shirley

List of Publications by Citations

79 papers	4,409 citations	31 h-index	66 g-index
82 ext. papers	5,465 ext. citations	7 avg, IF	5.19 L-index

#	Paper	IF	Citations
79	Transcriptomics technologies. *PLoS Computational Biology*, **2017**, 13, e1005457	5	385
78	Cellulose synthase-like CslF genes mediate the synthesis of cell wall (1,3;1,4)-beta-D-glucans. *Science*, **2006**, 311, 1940-2	33.3	346
77	Improvement of stress tolerance of wheat and barley by modulation of expression of DREB/CBF factors. *Plant Biotechnology Journal*, **2011**, 9, 230-49	11.6	318
76	The pineapple genome and the evolution of CAM photosynthesis. *Nature Genetics*, **2015**, 47, 1435-42	36.3	309
75	The CesA gene family of barley. Quantitative analysis of transcripts reveals two groups of co-expressed genes. *Plant Physiology*, **2004**, 134, 224-36	6.6	248
74	The genetics and transcriptional profiles of the cellulose synthase-like HvCslF gene family in barley. *Plant Physiology*, **2008**, 146, 1821-33	6.6	177
73	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	6.2	175
72	Nuisance Proteins of Wine Are Grape Pathogenesis-Related Proteins. *Journal of Agricultural and Food Chemistry*, **1996**, 44, 3-5	5.7	151
71	A two-staged model of Na+ exclusion in rice explained by 3D modeling of HKT transporters and alternative splicing. *PLoS ONE*, **2012**, 7, e39865	3.7	134
70	Over-expression of specific HvCslF cellulose synthase-like genes in transgenic barley increases the levels of cell wall (1,3;1,4)-□-glucans and alters their fine structure. *Plant Biotechnology Journal*, **2011**, 9, 117-35	11.6	131
69	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	4.9	130
68	Barley beta-D-glucan exohydrolases with beta-D-glucosidase activity. Purification, characterization, and determination of primary structure from a cDNA clone. *Journal of Biological Chemistry*, **1996**, 271, 5277-86	5.4	116
67	Improved salinity tolerance of rice through cell type-specific expression of AtHKT1;1. *PLoS ONE*, **2010**, 5, e12571	3.7	106
66	Phosphate utilization efficiency correlates with expression of low-affinity phosphate transporters and noncoding RNA, IPS1, in barley. *Plant Physiology*, **2011**, 156, 1217-29	6.6	89
65	The response of the maize nitrate transport system to nitrogen demand and supply across the lifecycle. *New Phytologist*, **2013**, 198, 82-94	9.8	85
64	Increased expression of six ZIP family genes by zinc (Zn) deficiency is associated with enhanced uptake and root-to-shoot translocation of Zn in barley (Hordeum vulgare). *New Phytologist*, **2015**, 207, 1097-109	9.8	78
63	Microarray expression analysis of meiosis and microsporogenesis in hexaploid bread wheat. *BMC Genomics*, **2006**, 7, 267	4.5	65

62	Revised Phylogeny of the Gene Superfamily: Insights into Cell Wall Evolution. *Plant Physiology*, **2018**, 177, 1124-1141	6.6	64
61	EPSPS gene amplification in glyphosate-resistant Bromus diandrus. *Pest Management Science*, **2016**, 72, 81-8	4.6	63
60	Discovery of cyclotide-like protein sequences in graminaceous crop plants: ancestral precursors of circular proteins?. *Plant Cell*, **2006**, 18, 2134-44	11.6	62
59	Isolation of plant transcription factors using a modified yeast one-hybrid system. *Plant Methods*, **2006**, 2, 3	5.8	47
58	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, 259-75	4.6	46
57	A genome wide association scan for (1,3;1,4)-β-glucan content in the grain of contemporary 2-row Spring and Winter barleys. *BMC Genomics*, **2014**, 15, 907	4.5	42
56	Grain development in Brachypodium and other grasses: possible interactions between cell expansion, starch deposition, and cell-wall synthesis. *Journal of Experimental Botany*, **2013**, 64, 5033-47	7	40
55	Defensin promoters as potential tools for engineering disease resistance in cereal grains. *Plant Biotechnology Journal*, **2010**, 8, 47-64	11.6	40
54	Spatial gradients in cell wall composition and transcriptional profiles along elongating maize internodes. *BMC Plant Biology*, **2014**, 14, 27	5.3	39
53	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, 655-70	6.6	38
52	Gene expression patterns and catalytic properties of UDP-D-glucose 4-epimerases from barley (Hordeum vulgare L.). *Biochemical Journal*, **2006**, 394, 115-24	3.8	38
51	Evolutionary Dynamics of the Cellulose Synthase Gene Superfamily in Grasses. *Plant Physiology*, **2015**, 168, 968-83	6.6	35
50	Spatial and temporal expression of endosperm transfer cell-specific promoters in transgenic rice and barley. *Plant Biotechnology Journal*, **2008**, 6, 465-76	11.6	34
49	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, 1025-39	14.4	32
48	Exploring the Role of Cell Wall-Related Genes and Polysaccharides during Plant Development. *Plants*, **2018**, 7,	4.5	31
47	The dynamics of cereal cyst nematode infection differ between susceptible and resistant barley cultivars and lead to changes in (1,3;1,4)-β-glucan levels and HvCslF gene transcript abundance. *New Phytologist*, **2015**, 207, 135-147	9.8	31
46	Temperature influences the level of glyphosate resistance in barnyardgrass (Echinochloa colona). *Pest Management Science*, **2016**, 72, 1031-9	4.6	31
45	A customized gene expression microarray reveals that the brittle stem phenotype fs2 of barley is attributable to a retroelement in the HvCesA4 cellulose synthase gene. *Plant Physiology*, **2010**, 153, 1716-28	6.6	28

44	Expression of vacuolar H+-pyrophosphatase (OVP3) is under control of an anoxia-inducible promoter in rice. *Plant Molecular Biology*, **2010**, 72, 47-60	4.6	28
43	Identification and characterisation of barley (Hordeum vulgare) respiratory burst oxidase homologue family members. *Functional Plant Biology*, **2008**, 35, 347-359	2.7	28
42	Powerful regulatory systems and post-transcriptional gene silencing resist increases in cellulose content in cell walls of barley. *BMC Plant Biology*, **2015**, 15, 62	5.3	27
41	Endo-(1,4)-β-glucanase gene families in the grasses: temporal and spatial co-transcription of orthologous genes. *BMC Plant Biology*, **2012**, 12, 235	5.3	27
40	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	3.7	27
39	Translating auxin responses into ovules, seeds and yield: Insight from Arabidopsis and the cereals. *Journal of Integrative Plant Biology*, **2019**, 61, 310-336	8.3	26
38	Down-regulation of the glucan synthase-like 6 gene (HvGsl6) in barley leads to decreased callose accumulation and increased cell wall penetration by Blumeria graminis f. sp. hordei. *New Phytologist*, **2016**, 212, 434-43	9.8	25
37	Characterization and expression patterns of UDP-D-glucuronate decarboxylase genes in barley. *Plant Physiology*, **2005**, 138, 131-41	6.6	24
36	Differences in glycosyltransferase family 61 accompany variation in seed coat mucilage composition in Plantago spp. *Journal of Experimental Botany*, **2016**, 67, 6481-6495	7	24
35	The Dynamics of Transcript Abundance during Cellularization of Developing Barley Endosperm. *Plant Physiology*, **2016**, 170, 1549-65	6.6	23
34	Clusters of genes encoding fructan biosynthesizing enzymes in wheat and barley. *Plant Molecular Biology*, **2012**, 80, 299-314	4.6	23
33	Distribution, structure and biosynthetic gene families of (1,3;1,4)-β-glucan in Sorghum bicolor. *Journal of Integrative Plant Biology*, **2015**, 57, 429-45	8.3	22
32	Asexual Female Gametogenesis Involves Contact with a Sexually-Fated Megaspore in Apomictic. *Plant Physiology*, **2018**, 177, 1027-1049	6.6	20
31	Probing the hammerhead ribozyme structure with ribonucleases. *Nucleic Acids Research*, **1994**, 22, 1620-5	20.1	19
30	Analysis of the (1,3)-beta-D-glucan synthase gene family of barley. *Phytochemistry*, **2009**, 70, 713-20	4	18
29	Differences in hydrolytic enzyme activity accompany natural variation in mature aleurone morphology in barley (Hordeum vulgare L.). *Scientific Reports*, **2018**, 8, 11025	4.9	17
28	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	6.2	17
27	Altered Expression of Genes Implicated in Xylan Biosynthesis Affects Penetration Resistance against Powdery Mildew. *Frontiers in Plant Science*, **2017**, 8, 445	6.2	15

26	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, 2025-40	7	15
25	A Novel (1,4)-Linked Glucoxylan Is Synthesized by Members of the Gene Family in Land Plants. *ACS Central Science*, **2019**, 5, 73-84	16.8	15
24	Systematic identification of factors involved in post-transcriptional processes in wheat grain. *Plant Molecular Biology*, **2006**, 62, 637-53	4.6	14
23	A Genome Wide Association Study of arabinoxylan content in 2-row spring barley grain. *PLoS ONE*, **2017**, 12, e0182537	3.7	14
22	Differential expression of the gene late in grain development may explain quantitative differences in (1,3;1,4)-glucan concentration in barley. *Molecular Breeding*, **2015**, 35, 20	3.4	13
21	Dissecting the Genetic Basis for Seed Coat Mucilage Heteroxylan Biosynthesis in Using Gamma Irradiation and Infrared Spectroscopy. *Frontiers in Plant Science*, **2017**, 8, 326	6.2	13
20	The scutellar vascular bundle-specific promoter of the wheat HD-Zip IV transcription factor shows similar spatial and temporal activity in transgenic wheat, barley and rice. *Plant Biotechnology Journal*, **2012**, 10, 43-53	11.6	13
19	The genetics, transcriptional profiles, and catalytic properties of UDP-alpha-D-xylose 4-epimerases from barley. *Plant Physiology*, **2010**, 153, 555-68	6.6	13
18	Cell wall modifications in maize pulvini in response to gravitational stress. *Plant Physiology*, **2011**, 156, 2155-71	6.6	13
17	Genetics and physiology of cell wall polysaccharides in the model C4 grass, Setaria viridis spp. *BMC Plant Biology*, **2015**, 15, 236	5.3	11
16	Combining transcriptional datasets using the generalized singular value decomposition. *BMC Bioinformatics*, **2008**, 9, 335	3.6	11
15	Overexpression of HvCslF6 in barley grain alters carbohydrate partitioning plus transfer tissue and endosperm development. *Journal of Experimental Botany*, **2020**, 71, 138-153	7	10
14	Genetics, Transcriptional Profiles, and Catalytic Properties of the UDP-Arabinose Mutase Family from Barley. *Biochemistry*, **2016**, 55, 322-34	3.2	9
13	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	6.9	8
12	Phylogenetic analysis and functional characterisation of strictosidine synthase-like genes in Arabidopsis thaliana. *Functional Plant Biology*, **2010**, 36, 1098-1109	2.7	7
11	Carbon Flux and Carbohydrate Gene Families in Pineapple. *Tropical Plant Biology*, **2016**, 9, 200-213	1.6	7
10	Analysis of cell wall synthesis and metabolism during early germination of f. sp. conidial cells induced. *Cell Surface*, **2019**, 5, 100030	4.8	6
9	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	4.6	5

8	Prospecting for Energy-Rich Renewable Raw Materials: Sorghum Stem Case Study. *PLoS ONE*, **2016**, 11, e0156638	3.7	5
7	Evidence for multiple interspecific hybridization in Saccharomyces sensu stricto species. *FEMS Yeast Research*, **2002**, 1, 323-331	3.1	4
6	Composition and biosynthetic machinery of the f. sp. conidia cell wall. *Cell Surface*, **2019**, 5, 100029	4.8	3
5	HvLEAFY controls the early stages of floral organ specification and inhibits the formation of multiple ovaries in barley. *Plant Journal*, **2021**, 108, 509-527	6.9	2
4	Expression patterns and protein structure of a lipid transfer protein END1 from Arabidopsis. *Planta* , **2014**, 240, 1319-34	4.7	1
3	Auxin Treatment Enhances Anthocyanin Production in the Non-Climacteric Sweet Cherry (L.). *International Journal of Molecular Sciences*, **2021**, 22,	6.3	1
2	Transcript Profiling of MIKCc MADS-Box Genes Reveals Conserved and Novel Roles in Barley Inflorescence Development. *Frontiers in Plant Science*, **2021**, 12, 705286	6.2	1
1	Identification and spatio-temporal expression analysis of barley genes that encode putative modular xylanolytic enzymes. *Plant Science*, **2021**, 308, 110792	5.3	