

# Geoffrey B Fincher

## List of Publications by Citations

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#	Paper	IF	Citations
174	A physical, genetic and functional sequence assembly of the barley genome. <i>Nature</i> , <b>2012</b> , 491, 711-6	50.4	1124
173	Determining the polysaccharide composition of plant cell walls. <i>Nature Protocols</i> , <b>2012</b> , 7, 1590-607	18.8	402
172	Heterogeneity in the chemistry, structure and function of plant cell walls. <i>Nature Chemical Biology</i> , <b>2010</b> , 6, 724-32	11.7	398
171	An Arabidopsis Callose Synthase, GSL5, Is Required for Wound and Papillary Callose Formation. <i>Plant Cell</i> , <b>2003</b> , 15, 2503-13	11.6	365
170	Cellulose synthase-like CslF genes mediate the synthesis of cell wall (1,3;1,4)-beta-D-glucans. <i>Science</i> , <b>2006</b> , 311, 1940-2	33.3	346
169	The CesA gene family of barley. Quantitative analysis of transcripts reveals two groups of co-expressed genes. <i>Plant Physiology</i> , <b>2004</b> , 134, 224-36	6.6	248
168	Virus-induced silencing of a plant cellulose synthase gene. <i>Plant Cell</i> , <b>2000</b> , 12, 691-706	11.6	215
167	A barley cellulose synthase-like CSLH gene mediates (1,3;1,4)-beta-D-glucan synthesis in transgenic Arabidopsis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 5996-6001	11.5	203
166	Three-dimensional structure of a barley beta-D-glucan exohydrolase, a family 3 glycosyl hydrolase. <i>Structure</i> , <b>1999</b> , 7, 179-90	5.2	194
165	Starch granule initiation and growth are altered in barley mutants that lack isoamylase activity. <i>Plant Journal</i> , <b>2002</b> , 31, 97-112	6.9	193
164	Changes in cell wall composition during ripening of grape berries. <i>Plant Physiology</i> , <b>1998</b> , 118, 783-92	6.6	193
163	The genetics and transcriptional profiles of the cellulose synthase-like HvCslF gene family in barley. <i>Plant Physiology</i> , <b>2008</b> , 146, 1821-33	6.6	177
162	Revolutionary times in our understanding of cell wall biosynthesis and remodeling in the grasses. <i>Plant Physiology</i> , <b>2009</b> , 149, 27-37	6.6	163
161	An investigation of boron toxicity in barley using metabolomics. <i>Plant Physiology</i> , <b>2006</b> , 142, 1087-101	6.6	158
160	Plant cell wall biosynthesis: genetic, biochemical and functional genomics approaches to the identification of key genes. <i>Plant Biotechnology Journal</i> , <b>2006</b> , 4, 145-67	11.6	158
159	Changes in cell wall polysaccharides in developing barley ( <i>Hordeum vulgare</i> ) coleoptiles. <i>Planta</i> , <b>2005</b> , 221, 729-38	4.7	158
158	Evolution of the Grain Dispersal System in Barley. <i>Cell</i> , <b>2015</b> , 162, 527-39	56.2	157

157	Bifunctional family 3 glycoside hydrolases from barley with alpha -L-arabinofuranosidase and beta -D-xylosidase activity. Characterization, primary structures, and COOH-terminal processing. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 5377-87	5.4	142
156	Expression patterns of cell wall-modifying enzymes during grape berry development. <i>Planta</i> , <b>2001</b> , 214, 257-64	4.7	142
155	(1,3;1,4)-beta-D-glucans in cell walls of the poaceae, lower plants, and fungi: a tale of two linkages. <i>Molecular Plant</i> , <b>2009</b> , 2, 873-82	14.4	132
154	Over-expression of specific HvCslF cellulose synthase-like genes in transgenic barley increases the levels of cell wall (1,3;1,4)-D-glucans and alters their fine structure. <i>Plant Biotechnology Journal</i> , <b>2011</b> , 9, 117-35	11.6	131
153	The sequence statistics and solution conformation of a barley (1----3, 1----4)-beta-D-glucan. <i>Carbohydrate Research</i> , <b>1986</b> , 157, 139-56	2.9	131
152	REVIEW: Variability in Fine Structures of Noncellulosic Cell Wall Polysaccharides from Cereal Grains: Potential Importance in Human Health and Nutrition. <i>Cereal Chemistry</i> , <b>2010</b> , 87, 272-282	2.4	125
151	Purification and chemical properties of two 1,3;1,4-beta-glucan endohydrolases from germinating barley. <i>FEBS Journal</i> , <b>1982</b> , 121, 663-9		125
150	Temporal and spatial appearance of wall polysaccharides during cellularization of barley ( <i>Hordeum vulgare</i> ) endosperm. <i>Planta</i> , <b>2006</b> , 224, 655-67	4.7	117
149	Barley beta-D-glucan exohydrolases with beta-D-glucosidase activity. Purification, characterization, and determination of primary structure from a cDNA clone. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 5277-86	5.4	116
148	A Barley xyloglucan xyloglucosyl transferase covalently links xyloglucan, cellulosic substrates, and (1,3;1,4)-beta-D-glucans. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 12951-62	5.4	112
147	Comparative modeling of the three-dimensional structures of family 3 glycoside hydrolases. <i>Proteins: Structure, Function and Bioinformatics</i> , <b>2000</b> , 41, 257-69	4.2	98
146	Molecular evolution of plant beta-glucan endohydrolases. <i>Plant Journal</i> , <b>1995</b> , 7, 367-79	6.9	98
145	Structure-function relationships of D-glucan endo- and exohydrolases from higher plants <b>2001</b> , 47, 73-91		96
144	Characterization of the genes encoding the cytosolic and plastidial forms of ADP-glucose pyrophosphorylase in wheat endosperm. <i>Plant Physiology</i> , <b>2002</b> , 130, 1464-75	6.6	94
143	Binding interactions between barley thaumatin-like proteins and (1,3)-beta-D-glucans. Kinetics, specificity, structural analysis and biological implications. <i>FEBS Journal</i> , <b>2001</b> , 268, 4190-9		92
142	Evolution and development of cell walls in cereal grains. <i>Frontiers in Plant Science</i> , <b>2014</b> , 5, 456	6.2	88
141	Purification of (1-->3)-beta-glucan endohydrolase isoenzyme II from germinated barley and determination of its primary structure from a cDNA clone. <i>Plant Molecular Biology</i> , <b>1989</b> , 13, 31-42	4.6	85
140	Substrate specificities and kinetic properties of two (1->3), (1->4)-D-glucan endo-hydrolases from germinating barley ( <i>Hordeum vulgare</i> ). <i>Carbohydrate Research</i> , <b>1982</b> , 106, 111-122	2.9	85

139	Development of (1 $\rightarrow$ 3,1 $\rightarrow$ 4)-beta-d-Glucan Endohydrolase Isoenzymes in Isolated Scutella and Aleurone Layers of Barley ( <i>Hordeum vulgare</i> ). <i>Plant Physiology</i> , <b>1986</b> , 80, 310-4	6.6	83
138	Differential accumulation of callose, arabinoxylan and cellulose in nonpenetrated versus penetrated papillae on leaves of barley infected with <i>Blumeria graminis</i> f. sp. <i>hordei</i> . <i>New Phytologist</i> , <b>2014</b> , 204, 650-660	9.8	82
137	Structural basis for broad substrate specificity in higher plant beta-D-glucan glucohydrolases. <i>Plant Cell</i> , <b>2002</b> , 14, 1033-52	11.6	81
136	Grape marc as a source of carbohydrates for bioethanol: Chemical composition, pre-treatment and saccharification. <i>Bioresource Technology</i> , <b>2015</b> , 193, 76-83	11	76
135	Substrate binding and catalytic mechanism of a barley beta-D-Glucosidase/(1,4)-beta-D-glucan exohydrolase. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 11134-43	5.4	76
134	Barley arabinoxylan arabinofuranohydrolases: purification, characterization and determination of primary structures from cDNA clones. <i>Biochemical Journal</i> , <b>2001</b> , 356, 181-189	3.8	72
133	Mutated barley (1,3)-beta-D-glucan endohydrolases synthesize crystalline (1,3)-beta-D-glucans. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 30102-11	5.4	71
132	Developmental Regulation of (1 $\rightarrow$ 3, 1 $\rightarrow$ 4)-beta-Glucanase Gene Expression in Barley : Tissue-Specific Expression of Individual Isoenzymes. <i>Plant Physiology</i> , <b>1992</b> , 99, 1226-31	6.6	71
131	Molecular modeling of family GH16 glycoside hydrolases: potential roles for xyloglucan transglucosylases/hydrolases in cell wall modification in the poaceae. <i>Protein Science</i> , <b>2004</b> , 13, 3200-13	6.3	70
130	A Brief and Informationally Rich Naming System for Oligosaccharide Motifs of Heteroxylans Found in Plant Cell Walls. <i>Australian Journal of Chemistry</i> , <b>2009</b> , 62, 533	1.2	70
129	Alanine aminotransferase controls seed dormancy in barley. <i>Nature Communications</i> , <b>2016</b> , 7, 11625	17.4	69
128	Exploring the evolution of (1,3;1,4)-beta-D-glucans in plant cell walls: comparative genomics can help!. <i>Current Opinion in Plant Biology</i> , <b>2009</b> , 12, 140-7	9.9	68
127	Structure and Function of Cereal and Related Higher Plant (1 $\rightarrow$ 4)-Xylan Endohydrolases. <i>Journal of Cereal Science</i> , <b>2003</b> , 37, 111-127	3.8	68
126	Catalytic mechanisms and reaction intermediates along the hydrolytic pathway of a plant beta-D-glucan glucohydrolase. <i>Structure</i> , <b>2001</b> , 9, 1005-16	5.2	65
125	A single limit dextrinase gene is expressed both in the developing endosperm and in germinated grains of barley. <i>Plant Physiology</i> , <b>1999</b> , 119, 859-71	6.6	65
124	Revised Phylogeny of the Gene Superfamily: Insights into Cell Wall Evolution. <i>Plant Physiology</i> , <b>2018</b> , 177, 1124-1141	6.6	64
123	Discovery of cyclotide-like protein sequences in graminaceous crop plants: ancestral precursors of circular proteins?. <i>Plant Cell</i> , <b>2006</b> , 18, 2134-44	11.6	62
122	Members of a new group of chitinase-like genes are expressed preferentially in cotton cells with secondary walls. <i>Plant Molecular Biology</i> , <b>2004</b> , 54, 353-72	4.6	60

121	Current challenges in cell wall biology in the cereals and grasses. <i>Frontiers in Plant Science</i> , <b>2012</b> , 3, 130	6.2	59
120	Molecular cloning of a cDNA encoding a (1→4)-beta-mannan endohydrolase from the seeds of germinated tomato ( <i>Lycopersicon esculentum</i> ). <i>Planta</i> , <b>1997</b> , 203, 454-9	4.7	57
119	Biochemical evidence linking a putative callose synthase gene with (1 → 3)-beta-D-glucan biosynthesis in barley. <i>Plant Molecular Biology</i> , <b>2003</b> , 53, 213-25	4.6	57
118	Purification and characterization of three (1→4)-beta-D-xylan endohydrolases from germinated barley. <i>FEBS Journal</i> , <b>1989</b> , 185, 533-9		54
117	Barley arabinoxylan arabinofuranohydrolases: purification, characterization and determination of primary structures from cDNA clones. <i>Biochemical Journal</i> , <b>2001</b> , 356, 181-9	3.8	53
116	Prospecting for Energy-Rich Renewable Raw Materials: Agave Leaf Case Study. <i>PLoS ONE</i> , <b>2015</b> , 10, e0135382	3.5	51
115	Reducing haziness in white wine by overexpression of <i>Saccharomyces cerevisiae</i> genes YOL155c and YDR055w. <i>Applied Microbiology and Biotechnology</i> , <b>2007</b> , 73, 1363-76	5.7	51
114	Plant cell wall engineering: applications in biofuel production and improved human health. <i>Current Opinion in Biotechnology</i> , <b>2014</b> , 26, 79-84	11.4	50
113	Fine structure of the arabinogalactan-protein from <i>Lolium multiflorum</i> . <i>Carbohydrate Research</i> , <b>1987</b> , 162, 85-93	2.9	50
112	Messenger RNAs from the Scutellum and Aleurone of Germinating Barley Encode (1→3,1→4)-beta-d-Glucanase, alpha-Amylase and Carboxypeptidase. <i>Plant Physiology</i> , <b>1985</b> , 79, 867-71	6.6	49
111	Induction of (1→3,1→4)-beta-D-glucan hydrolases in leaves of dark-incubated barley seedlings. <i>Planta</i> , <b>2002</b> , 215, 51-9	4.7	48
110	Isolation and characterization of cell walls from the mesocarp of mature grape berries ( <i>Vitis vinifera</i> ). <i>Planta</i> , <b>1997</b> , 203, 93-100	4.7	47
109	Gene structure and expression pattern analysis of three monodehydroascorbate reductase (MdhAr) genes in <i>Physcomitrella patens</i> : implications for the evolution of the MDHAR family in plants. <i>Plant Molecular Biology</i> , <b>2006</b> , 60, 259-75	4.6	46
108	Tissue Slice and Particulate beta-Glucan Synthetase Activities from <i>Pisum</i> Epicotyls. <i>Plant Physiology</i> , <b>1978</b> , 61, 938-42	6.6	44
107	Barley β-glucan exohydrolases. Substrate specificity and kinetic properties. <i>Carbohydrate Research</i> , <b>1997</b> , 305, 209-221	2.9	43
106	Molecular cloning of cDNAs encoding (1→4)-beta-xylan endohydrolases from the aleurone layer of germinated barley ( <i>Hordeum vulgare</i> ). <i>Plant Molecular Biology</i> , <b>1996</b> , 31, 1163-72	4.6	43
105	A genome wide association scan for (1,3;1,4)-β-glucan content in the grain of contemporary 2-row Spring and Winter barleys. <i>BMC Genomics</i> , <b>2014</b> , 15, 907	4.5	42
104	Hydrolysis of (1,4)-beta-D-mannans in barley ( <i>Hordeum vulgare</i> L.) is mediated by the concerted action of (1,4)-beta-D-mannan endohydrolase and beta-D-mannosidase. <i>Biochemical Journal</i> , <b>2006</b> , 399, 77-90	3.8	42

103	Grain development in Brachypodium and other grasses: possible interactions between cell expansion, starch deposition, and cell-wall synthesis. <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 5033-47	7	40
102	The barley ( <i>Hordeum vulgare</i> ) cellulose synthase-like D2 gene (HvCslD2) mediates penetration resistance to host-adapted and nonhost isolates of the powdery mildew fungus. <i>New Phytologist</i> , <b>2016</b> , 212, 421-33	9.8	39
101	Spatial gradients in cell wall composition and transcriptional profiles along elongating maize internodes. <i>BMC Plant Biology</i> , <b>2014</b> , 14, 27	5.3	39
100	In vitro synthesis of a microfibrillar (1->3)- $\beta$ -glucan by a ryegrass ( <i>Lolium multiflorum</i> ) endosperm (1->3)- $\beta$ -glucan synthase enriched by product entrapment. <i>Plant Journal</i> , <b>1995</b> , 8, 213-225	6.9	39
99	Pattern of deposition of cell wall polysaccharides and transcript abundance of related cell wall synthesis genes during differentiation in barley endosperm. <i>Plant Physiology</i> , <b>2012</b> , 159, 655-70	6.6	38
98	Polysaccharide hydrolases in germinated barley and their role in the depolymerization of plant and fungal cell walls. <i>International Journal of Biological Macromolecules</i> , <b>1997</b> , 21, 67-72	7.9	38
97	A tetrad of ionizable amino acids is important for catalysis in barley beta-glucanases. <i>Journal of Biological Chemistry</i> , <b>1995</b> , 270, 8093-101	5.4	37
96	Flt-2L, a locus in barley controlling flowering time, spike density, and plant height. <i>Functional and Integrative Genomics</i> , <b>2009</b> , 9, 243-54	3.8	36
95	Evolutionary Dynamics of the Cellulose Synthase Gene Superfamily in Grasses. <i>Plant Physiology</i> , <b>2015</b> , 168, 968-83	6.6	35
94	Emerging Technologies for the Production of Renewable Liquid Transport Fuels from Biomass Sources Enriched in Plant Cell Walls. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 1854	6.2	35
93	Subsite affinities and disposition of catalytic amino acids in the substrate-binding region of barley 1,3-beta-glucanases. Implications in plant-pathogen interactions. <i>Journal of Biological Chemistry</i> , <b>1995</b> , 270, 14556-63	5.4	34
92	Genome Wide Association Mapping for Arabinoxylan Content in a Collection of Tetraploid Wheats. <i>PLoS ONE</i> , <b>2015</b> , 10, e0132787	3.7	34
91	The CELLULOSE-SYNTHASE LIKE C (CSLC) family of barley includes members that are integral membrane proteins targeted to the plasma membrane. <i>Molecular Plant</i> , <b>2009</b> , 2, 1025-39	14.4	32
90	Substrate specificity and catalytic mechanism of a xyloglucan xyloglucosyl transferase HvXET6 from barley ( <i>Hordeum vulgare</i> L.). <i>FEBS Journal</i> , <b>2009</b> , 276, 437-56	5.7	32
89	Three-dimensional structure of the barley beta-D-glucan glucohydrolase in complex with a transition state mimic. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 4970-80	5.4	32
88	The dynamics of cereal cyst nematode infection differ between susceptible and resistant barley cultivars and lead to changes in (1,3;1,4)- $\beta$ -glucan levels and HvCslF gene transcript abundance. <i>New Phytologist</i> , <b>2015</b> , 207, 135-147	9.8	31
87	Isolation and characterization of a (1 -> 3)- $\beta$ -glucan endohydrolase from germinating barley ( <i>Hordeum vulgare</i> ): amino acid sequence similarity with barley (1 -> 3, 1 -> 4)- $\beta$ -glucanases. <i>FEBS Letters</i> , <b>1988</b> , 230, 67-71	3.8	31
86	Reconstitution of cyanogenesis in barley ( <i>Hordeum vulgare</i> L.) and its implications for resistance against the barley powdery mildew fungus. <i>Planta</i> , <b>2006</b> , 223, 1010-23	4.7	30

85	Genetic Diversity and Genome Wide Association Study of $\beta$ -Glucan Content in Tetraploid Wheat Grains. <i>PLoS ONE</i> , <b>2016</b> , 11, e0152590	3.7	30
84	Hyphal cell walls from the plant pathogen <i>Rhynchosporium secalis</i> contain (1,3/1,6)- $\beta$ -D-glucans, galacto- and rhamnomannans, (1,3;1,4)- $\beta$ -D-glucans and chitin. <i>FEBS Journal</i> , <b>2009</b> , 276, 3698-709	5.7	29
83	The barley genome sequence assembly reveals three additional members of the CslF (1,3;1,4)- $\beta$ -glucan synthase gene family. <i>PLoS ONE</i> , <b>2014</b> , 9, e90888	3.7	29
82	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. <i>Plant Physiology</i> , <b>2010</b> , 153, 1716-28	6.6	28
81	Polyproline II Confirmation in the Protein Component of Arabinogalactan-Protein from <i>Lolium multiflorum</i> . <i>Plant Physiology</i> , <b>1984</b> , 75, 1163-4	6.6	28
80	Powerful regulatory systems and post-transcriptional gene silencing resist increases in cellulose content in cell walls of barley. <i>BMC Plant Biology</i> , <b>2015</b> , 15, 62	5.3	27
79	Endo-(1,4)- $\beta$ -glucanase gene families in the grasses: temporal and spatial co-transcription of orthologous genes. <i>BMC Plant Biology</i> , <b>2012</b> , 12, 235	5.3	27
78	Rice family GH1 glycoside hydrolases with $\beta$ -D-glucosidase and $\beta$ -D-mannosidase activities. <i>Archives of Biochemistry and Biophysics</i> , <b>2009</b> , 491, 85-95	4.1	27
77	Purification and characterization of (1 $\rightarrow$ 3, 1 $\rightarrow$ 4)- $\beta$ -glucan endohydrolases from germinated wheat ( <i>Triticum aestivum</i> ). <i>Plant Molecular Biology</i> , <b>1993</b> , 22, 847-59	4.6	27
76	Dissecting the catalytic mechanism of a plant $\beta$ -D-glucan glucohydrolase through structural biology using inhibitors and substrate analogues. <i>Carbohydrate Research</i> , <b>2007</b> , 342, 1613-23	2.9	26
75	Down-regulation of the glucan synthase-like 6 gene (HvGsl6) in barley leads to decreased callose accumulation and increased cell wall penetration by <i>Blumeria graminis</i> f. sp. <i>hordei</i> . <i>New Phytologist</i> , <b>2016</b> , 212, 434-43	9.8	25
74	(1,3;1,4)- $\beta$ -Glucan Biosynthesis by the CSLF6 Enzyme: Position and Flexibility of Catalytic Residues Influence Product Fine Structure. <i>Biochemistry</i> , <b>2016</b> , 55, 2054-61	3.2	25
73	Characterization and expression patterns of UDP-D-glucuronate decarboxylase genes in barley. <i>Plant Physiology</i> , <b>2005</b> , 138, 131-41	6.6	24
72	Chromosomal Location of Genes Encoding Barley (1 $\rightarrow$ 3, 1 $\rightarrow$ 4)- $\beta$ -Glucan 4-Glucanohydrolases. <i>Plant Physiology</i> , <b>1988</b> , 87, 300-2	6.6	24
71	Amino acid sequence homology in two 1,3;1,4- $\beta$ -glucan endohydrolases from germinating barley ( <i>hordeum vulgare</i> ). <i>FEBS Letters</i> , <b>1982</b> , 138, 198-200	3.8	24
70	. <i>ScienceAsia</i> , <b>2002</b> , 28, 29	1.4	24
69	The Dynamics of Transcript Abundance during Cellularization of Developing Barley Endosperm. <i>Plant Physiology</i> , <b>2016</b> , 170, 1549-65	6.6	23
68	Genes and traits associated with chromosome 2H and 5H regions controlling sensitivity of reproductive tissues to frost in barley. <i>Theoretical and Applied Genetics</i> , <b>2009</b> , 118, 1465-76	6	23

67	Distribution, structure and biosynthetic gene families of (1,3;1,4)- $\beta$ -glucan in <i>Sorghum bicolor</i> . <i>Journal of Integrative Plant Biology</i> , <b>2015</b> , 57, 429-45	8.3	22
66	Effects of gibberellic acid and abscisic acid on levels of translatable mRNA (1 $\rightarrow$ 3,1 $\rightarrow$ 4)- $\beta$ -D-glucanase in barley aleurone. <i>FEBS Letters</i> , <b>1986</b> , 198, 349-352	3.8	22
65	Gene flow from transgenic wheat and barley under field conditions. <i>Euphytica</i> , <b>2006</b> , 151, 383-391	2.1	21
64	Differences in the thermostabilities of barley (1 $\rightarrow$ 3,1 $\rightarrow$ 4)- $\beta$ -glucanases are only partly determined by N-glycosylation. <i>FEBS Letters</i> , <b>1992</b> , 309, 265-71	3.8	21
63	Barley (1 $\rightarrow$ 3,1 $\rightarrow$ 4)- $\beta$ -glucanase isoenzyme EI gene expression is mediated by auxin and gibberellic acid. <i>FEBS Letters</i> , <b>1992</b> , 306, 98-102	3.8	21
62	Biosynthesis of Arabinogalactan-Protein in <i>Lolium multiflorum</i> (Ryegrass) Endosperm Cells : III. Subcellular Distribution of Prolyl Hydroxylase. <i>Plant Physiology</i> , <b>1983</b> , 72, 754-8	6.6	21
61	Soluble arabinoxylan alters digesta flow and protein digestion of red meat-containing diets in pigs. <i>Nutrition</i> , <b>2015</b> , 31, 1141-7	4.8	20
60	Purification and characterization of a (1 $\rightarrow$ 3)- $\beta$ -D-glucan endohydrolase from rice ( <i>Oryza sativa</i> ) bran. <i>Carbohydrate Research</i> , <b>1997</b> , 297, 365-74	2.9	20
59	Synthesis of complex oligosaccharides by using a mutated (1,3)- $\beta$ -D-glucan endohydrolase from barley. <i>Chemistry - A European Journal</i> , <b>2003</b> , 9, 2603-10	4.8	20
58	Varietal and chromosome 2H locus-specific frost tolerance in reproductive tissues of barley ( <i>Hordeum vulgare</i> L.) detected using a frost simulation chamber. <i>Theoretical and Applied Genetics</i> , <b>2009</b> , 119, 685-94	6	19
57	Purification, characterization and gene structure of (1 $\rightarrow$ 3)- $\beta$ -glucanase isoenzyme GIII from barley ( <i>Hordeum vulgare</i> ). <i>FEBS Journal</i> , <b>1992</b> , 209, 103-9		19
56	Genetic and environmental factors contribute to variation in cell wall composition in mature desi chickpea ( <i>Cicer arietinum</i> L.) cotyledons. <i>Plant, Cell and Environment</i> , <b>2018</b> , 41, 2195-2208	8.4	18
55	Analysis of the (1,3)- $\beta$ -D-glucan synthase gene family of barley. <i>Phytochemistry</i> , <b>2009</b> , 70, 713-20	4	18
54	Plant enzyme structure. Explaining substrate specificity and the evolution of function. <i>Plant Physiology</i> , <b>2001</b> , 125, 54-7	6.6	18
53	Isolation of tissues and preservation of RNA from intact, germinated barley grain. <i>Plant Journal</i> , <b>2017</b> , 91, 754-765	6.9	17
52	Morphology, Carbohydrate Distribution, Gene Expression, and Enzymatic Activities Related to Cell Wall Hydrolysis in Four Barley Varieties during Simulated Malting. <i>Frontiers in Plant Science</i> , <b>2017</b> , 8, 1872	6.2	17
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45	Distribution, Fine Structure and Function of (1,3;1,4)-D-Glucans in the Grasses and Other Taxa <b>2009</b> , 621-654		14
44	Plant cell wall polysaccharide biosynthesis: real progress in the identification of participating genes. <i>Planta</i> , <b>2005</b> , 221, 309-12	4.7	14
43	Differential expression of the gene late in grain development may explain quantitative differences in (1,3;1,4)-D-glucan concentration in barley. <i>Molecular Breeding</i> , <b>2015</b> , 35, 20	3.4	13
42	The genetics, transcriptional profiles, and catalytic properties of UDP-alpha-D-xylose 4-epimerases from barley. <i>Plant Physiology</i> , <b>2010</b> , 153, 555-68	6.6	13
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40	Crystallization and preliminary X-ray analysis of beta-glucan exohydrolase isoenzyme Exol from barley ( <i>Hordeum vulgare</i> ). <i>Acta Crystallographica Section D: Biological Crystallography</i> , <b>1998</b> , 54, 687-9		13
39	Regulation of genes encoding D-glucan glucohydrolases in barley ( <i>Hordeum vulgare</i> ). <i>Physiologia Plantarum</i> , <b>2001</b> , 113, 108-120	4.6	13
38	Functional Characterization of a Glycosyltransferase from the Moss Involved in the Biosynthesis of a Novel Cell Wall Arabinoglucan. <i>Plant Cell</i> , <b>2018</b> , 30, 1293-1308	11.6	12
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36	Genetics and physiology of cell wall polysaccharides in the model C4 grass, <i>Setaria viridis</i> spp. <i>BMC Plant Biology</i> , <b>2015</b> , 15, 236	5.3	11
35	Heterologous expression of diverse barley XTH genes in the yeast <i>Pichia pastoris</i> . <i>Plant Biotechnology</i> , <b>2010</b> , 27, 251-258	1.3	11
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33	Combining transcriptional datasets using the generalized singular value decomposition. <i>BMC Bioinformatics</i> , <b>2008</b> , 9, 335	3.6	11
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28	Gene structure and a possible cytoplasmic location for (1→3)-β-glucanase isoenzyme GI from barley ( <i>Hordeum vulgare</i> ). <i>Plant Science</i> , <b>1998</b> , 135, 39-47	5.3	10
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25	Heterologous expression of cDNAs encoding barley ( <i>Hordeum vulgare</i> ) (1→3)-beta-glucanase isoenzyme GV. <i>FEBS Letters</i> , <b>1994</b> , 348, 206-10	3.8	9
24	Genetics, Transcriptional Profiles, and Catalytic Properties of the UDP-Arabinose Mutase Family from Barley. <i>Biochemistry</i> , <b>2016</b> , 55, 322-34	3.2	9
23	Soluble cell wall carbohydrates and their relationship with sensory attributes in Cabernet Sauvignon wine. <i>Food Chemistry</i> , <b>2019</b> , 298, 124745	8.5	8
22	Method for hull-less barley transformation and manipulation of grain mixed-linkage beta-glucan. <i>Journal of Integrative Plant Biology</i> , <b>2018</b> , 60, 382-396	8.3	8
21	Barley grain (1,3;1,4)-β-glucan content: effects of transcript and sequence variation in genes encoding the corresponding synthase and endohydrolase enzymes. <i>Scientific Reports</i> , <b>2019</b> , 9, 17250	4.9	8
20	Low-Input Fermentations of Agave tequilana Leaf Juice Generate High Returns on Ethanol Yields. <i>Bioenergy Research</i> , <b>2016</b> , 9, 1142-1154	3.1	7
19	Water uptake in barley grain: Physiology; genetics and industrial applications. <i>Plant Science</i> , <b>2016</b> , 242, 260-269	5.3	7
18	The Synthesis of 3-O-(β-D-Glucopyranosyl)- and 3-O-(β-Laminaribiosyl)-isofagomines, Potent Inhibitors of a 1,3-β-D-Glucan endo-Hydrolase. <i>Australian Journal of Chemistry</i> , <b>2004</b> , 57, 187	1.2	7
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15	Barley Grain Carbohydrates: Starch and Cell Walls <b>2014</b> , 71-95		5
14	Biosynthesis of Plant Cell Wall and Related Polysaccharides by Enzymes of the GT2 and GT48 Families <b>2010</b> , 109-165		5

13	Plant and Microbial Enzymes Involved in the Depolymerization of (1,3)- $\beta$ -D-Glucans and Related Polysaccharides <b>2009</b> , 119-170		5
12	Development and regulation of (1 $\rightarrow$ 3,1 $\rightarrow$ 4)- $\beta$ -glucan endohydrolases in germinating wheat ( <i>Triticum aestivum</i> ). <i>Seed Science Research</i> , <b>1993</b> , 3, 65-73	1.3	5
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8	Biochemical and Molecular Properties of Biosynthetic Enzymes for (1,3)- $\beta$ -Glucans in Embryophytes, Chlorophytes and Rhodophytes <b>2009</b> , 283-326		3
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