Matthew R Tucker

List of Publications by Year
in descending order

76 papers	3,559 citations	126708 33 h-index	149479 56 g-index
80 all docs	80 docs citations	80 times ranked	4439 citing authors

#	Article	IF	Citations
1	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.	1.7	328
2	A Protodermal miR394 Signal Defines a Region of Stem Cell Competence in the Arabidopsis Shoot Meristem. Developmental Cell, 2013, 24, 125-132.	3.1	198
3	Control of Early Seed Development. Annual Review of Cell and Developmental Biology, 2001, 17, 677-699.	4.0	184
4	A modern Green Revolution gene for reduced height in wheat. Plant Journal, 2017, 92, 892-903.	2.8	150
5	Somatic small RNA pathways promote the mitotic events of megagametogenesis during female reproductive development in Arabidopsis. Development (Cambridge), 2012, 139, 1399-1404.	1.2	145
6	Sexual and Apomictic Reproduction in Hieracium subgenus Pilosella Are Closely Interrelated Developmental Pathways. Plant Cell, 2003, 15, 1524-1537.	3.1	126
7	Phenotypic and genetic analysis of spike and kernel characteristics in wheat reveals long-term genetic trends of grain yield components. Theoretical and Applied Genetics, 2018, 131, 2071-2084.	1.8	122
8	Vascular signalling mediated by ZWILLE potentiates WUSCHEL function during shoot meristem stem cell development in theArabidopsisembryo. Development (Cambridge), 2008, 135, 2839-2843.	1.2	109
9	Redundant and Specific Roles of the ARGONAUTE Proteins AGO1 and ZLL in Development and Small RNA-Directed Gene Silencing. PLoS Genetics, 2009, 5, e1000646.	1.5	107
10	Dissecting the role of MADS-box genes in monocot floral development and diversity. Journal of Experimental Botany, 2018, 69, 2435-2459.	2.4	96
11	Connecting the paths in plant stem cell regulation. Trends in Cell Biology, 2007, 17, 403-410.	3.6	90
12	Enlarging Cells Initiating Apomixis in Hieracium praealtum Transition to an Embryo Sac Program prior to Entering Mitosis Â Â. Plant Physiology, 2013, 163, 216-231.	2.3	78
13	Mapping dynamic QTL for plant height in triticale. BMC Genetics, 2014, 15, 59.	2.7	73
14	A Genetic Screen for Impaired Systemic RNAi Highlights the Crucial Role of DICER-LIKE 2. Plant Physiology, 2017, 175, 1424-1437.	2.3	72
15	Copy number variations of CBF genes at the Frâ€A2 locus are essential components of winter hardiness in wheat. Plant Journal, 2017, 89, 764-773.	2.8	72
16	Improved efficiency of doubled haploid generation in hexaploid triticale by in vitro chromosome doubling. BMC Plant Biology, 2012, 12, 109.	1.6	65
17	Sexual and asexual (apomictic) seed development in flowering plants: molecular, morphological and evolutionary relationships. Functional Plant Biology, 2009, 36, 490.	1.1	64
18	Dynamics of callose deposition and Î²-1,3-glucanase expression during reproductive events in sexual and apomictic Hieracium. Planta, 2001, 212, 487-498.	1.6	60

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19	Exploring the Role of Cell Wall-Related Genes and Polysaccharides during Plant Development. Plants, 2018, 7, 42.	1.6	60
20	A threeâ€component system incorporating <scp>Ppdâ€D1</scp>, copy number variation at <scp>Ppdâ€B1</scp>, and numerous smallâ€effect quantitative trait loci facilitates adaptation of heading time in winter wheat cultivars of worldwide origin. Plant, Cell and Environment, 2018, 41, 1407-1416.	2.8	56
21	Sexual and Apomictic Seed Formation in Hieracium Requires the Plant Polycomb-Group Gene FERTILIZATION INDEPENDENT ENDOSPERM Â. Plant Cell, 2008, 20, 2372-2386.	3.1	53
22	A Rice Ca²⁺ Binding Protein Is Required for Tapetum Function and Pollen Formation. Plant Physiology, 2016, 172, 1772-1786.	2.3	50
23	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.	2.4	48
24	The Dynamics of Transcript Abundance during Cellularization of Developing Barley Endosperm. Plant Physiology, 2016, 170, 1549-1565.	2.3	47
25	Differences in glycosyltransferase family 61 accompany variation in seed coat mucilage composition inPlantagospp.. Journal of Experimental Botany, 2016, 67, 6481-6495.	2.4	46
26	Revisiting the Female Germline and Its Expanding Toolbox. Trends in Plant Science, 2019, 24, 455-467.	4.3	46
27	Ostkpr1 functions in anther cuticle development and pollen wall formation in rice. BMC Plant Biology, 2019, 19, 104.	1.6	43
28	Traffic monitors at the cell periphery: the role of cell walls during early female reproductive cell differentiation in plants. Current Opinion in Plant Biology, 2014, 17, 137-145.	3.5	41
29	The transition from somatic to germline identity shows conserved and specialized features during angiosperm evolution. New Phytologist, 2017, 216, 495-509.	3.5	41
30	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>HvCslF</scp> gene transcript abundance. New Phytologist, 2015, 207, 135-147.	3.5	40
31	Sporophytic ovule tissues modulate the initiation and progression of apomixis in Hieracium. Journal of Experimental Botany, 2012, 63, 3229-3241.	2.4	39
32	Translating auxin responses into ovules, seeds and yield: Insight from Arabidopsis and the cereals. Journal of Integrative Plant Biology, 2019, 61, 310-336.	4.1	38
33	Isolation and structural elucidation by 2D NMR of planteose, a major oligosaccharide in the mucilage of chia (Salvia hispanica L.) seeds. Carbohydrate Polymers, 2017, 175, 231-240.	5.1	36
34	Targeted mutation of barley (1,3;1,4)â€Î²â€glucan synthases reveals complex relationships between the storage and cell wall polysaccharide content. Plant Journal, 2020, 104, 1009-1022.	2.8	35
35	MADS1 maintains barley spike morphology at high ambient temperatures. Nature Plants, 2021, 7, 1093-1107.	4.7	35
36	Optimum design of family structure and allocation of resources in association mapping with lines from multiple crosses. Heredity, 2013, 110, 71-79.	1.2	34

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37	The RNA dependent DNA methylation pathway is required to restrict SPOROCYTELESS/NOZZLE expression to specify a single female germ cell precursor in Arabidopsis. Development (Cambridge), 2020, 147, .	1.2	34
38	Reduced Expression of the SHORT-ROOT Gene Increases the Rates of Growth and Development in Hybrid Poplar and Arabidopsis. PLoS ONE, 2011, 6, e28878.	1.1	32
39	Genome-wide evaluation of genetic diversity and linkage disequilibrium in winter and spring triticale (x Triticosecale Wittmack). BMC Genomics, 2012, 13, 235.	1.2	28
40	Asexual Female Gametogenesis Involves Contact with a Sexually-Fated Megaspore in Apomictic Hieracium. Plant Physiology, 2018, 177, 1027-1049.	2.3	28
41	Adult Plant Development in Triticale (Ã— Triticosecale Wittmack) Is Controlled by Dynamic Genetic Patterns of Regulation. G3: Genes, Genomes, Genetics, 2014, 4, 1585-1591.	0.8	26
42	Establishing a framework for female germline initiation in the plant ovule. Journal of Experimental Botany, 2019, 70, 2937-2949.	2.4	26
43	Differences in hydrolytic enzyme activity accompany natural variation in mature aleurone morphology in barley (Hordeum vulgare L.). Scientific Reports, 2018, 8, 11025.	1.6	25
44	Ethylene inhibitors improve efficiency of microspore embryogenesis in hexaploid triticale. Plant Cell, Tissue and Organ Culture, 2015, 122, 751-757.	1.2	24
45	Barley grain (1,3;1,4)-Î²-glucan content: effects of transcript and sequence variation in genes encoding the corresponding synthase and endohydrolase enzymes. Scientific Reports, 2019, 9, 17250.	1.6	24
46	Genetic and environmental factors contribute to variation in cell wall composition in mature desi chickpea (Cicer arietinumL.) cotyledons. Plant, Cell and Environment, 2018, 41, 2195-2208.	2.8	23
47	Auxin treatment of grapevine (Vitis vinifera L.) berries delays ripening onset by inhibiting cell expansion. Plant Molecular Biology, 2020, 103, 91-111.	2.0	21
48	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.	1.7	20
49	An optimised clearing protocol for the quantitative assessment of sub-epidermal ovule tissues within whole cereal pistils. Plant Methods, 2017, 13, 67.	1.9	20
50	Deciphering aquaporin regulation and roles in seed biology. Journal of Experimental Botany, 2020, 71, 1763-1773.	2.4	19
51	Genetic Architecture of Winter Hardiness and Frost Tolerance in Triticale. PLoS ONE, 2014, 9, e99848.	1.1	18
52	Overexpression of HvCslF6 in barley grain alters carbohydrate partitioning plus transfer tissue and endosperm development. Journal of Experimental Botany, 2020, 71, 138-153.	2.4	18
53	Dose-Dependent AGO1-Mediated Inhibition of the miRNA165/166 Pathway Modulates Stem Cell Maintenance in Arabidopsis Shoot Apical Meristem. Plant Communications, 2020, 1, 100002.	3.6	18
54	APETALA2 functions as a temporal factor together with BLADE-ON-PETIOLE2 and MADS29 to control flower and grain development in barley. Development (Cambridge), 2021, 148, .	1.2	18

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55	Genome-wide association study reveals the genetic complexity of fructan accumulation patterns in barley grain. Journal of Experimental Botany, 2021, 72, 2383-2402.	2.4	17
56	Hybrid breeding in wheat: how shaping floral biology can offer new perspectives. Functional Plant Biology, 2020, 47, 675.	1.1	16
57	Multipleâ€line cross <scp>QTL</scp> mapping for grain yield and thousand kernel weight in triticale. Plant Breeding, 2016, 135, 567-573.	1.0	15
58	HvLEAFY controls the early stages of floral organ specification and inhibits the formation of multiple ovaries in barley. Plant Journal, 2021, 108, 509-527.	2.8	15
59	Potential for Marker-Assisted Simultaneous Improvement of Grain and Biomass Yield in Triticale. Bioenergy Research, 2017, 10, 449-455.	2.2	14
60	Misexpression of a transcriptional repressor candidate provides a molecular mechanism for the suppression of awns by Tipped 1 in wheat. Journal of Experimental Botany, 2020, 71, 3428-3436.	2.4	12
61	Manipulation of Barley Development and Flowering Time by Exogenous Application of Plant Growth Regulators. Frontiers in Plant Science, 2021, 12, 694424.	1.7	12
62	Refining the genetic architecture of flag leaf glaucousness in wheat. Theoretical and Applied Genetics, 2020, 133, 981-991.	1.8	11
63	Accession-specific modifiers act with ZWILLE/ARGONAUTE10 to maintain shoot meristem stem cells during embryogenesis in Arabidopsis. BMC Genomics, 2013, 14, 809.	1.2	10
64	Stress treatments influence efficiency of microspore embryogenesis and green plant regeneration in hexaploid triticale (Ã— Triticosecale Wittmack L.). In Vitro Cellular and Developmental Biology - Plant, 2014, 50, 143-148.	0.9	10
65	Natural Variation in Ovule Morphology Is Influenced by Multiple Tissues and Impacts Downstream Grain Development in Barley (Hordeum vulgare L.). Frontiers in Plant Science, 2019, 10, 1374.	1.7	9
66	Rab-dependent vesicular traffic affects female gametophyte development in Arabidopsis. Journal of Experimental Botany, 2021, 72, 320-340.	2.4	9
67	Three-dimensional imaging reveals that positions of cyst nematode feeding sites relative to xylem vessels differ between susceptible and resistant wheat. Plant Cell Reports, 2021, 40, 393-403.	2.8	8
68	Infection by cyst nematodes induces rapid remodelling of developing xylem vessels in wheat roots. Scientific Reports, 2020, 10, 9025.	1.6	7
69	Establishing a regulatory blueprint for ovule number and function during plant development. Current Opinion in Plant Biology, 2021, 63, 102095.	3.5	7
70	Functional embryo sac formation in Arabidopsis without meiosis â€" one step towards asexual seed formation (apomixis) in crops?. Journal of Biosciences, 2008, 33, 309-311.	0.5	5
71	Systematic identification and expression profiles of the BAHD superfamily acyltransferases in barley (Hordeum vulgare). Scientific Reports, 2022, 12, 5063.	1.6	5
72	Genetic Architecture of Cereal Leaf Beetle Resistance in Wheat. Plants, 2020, 9, 1117.	1.6	4

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73	The Rab Geranylgeranyl Transferase Beta Subunit Is Essential for Embryo and Seed Development in Arabidopsis thaliana. International Journal of Molecular Sciences, 2021, 22, 7907.	1.8	4
74	The Cellulose <scp>Synthaseâ€Like</scp> <scp> F3 </scp> (<scp> CslF3 </scp>) Gene Mediates Cell Wall Polysaccharide Synthesis and Affects Root Growth and Differentiation in Barley. Plant Journal, 2022, , .	2.8	3
75	Advances in Apomixis Research: Can we Fix Heterosis?. , 2003, , 38-46.		2
76	Agrobacterium-Mediated Genetic Transformation, Transgenic Production, and Its Application for the Study of Male Reproductive Development in Rice. Journal of Visualized Experiments, 2020, , .	0.2	1