

# Matthew R Tucker

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

77  
papers

2,379  
citations

28  
h-index

47  
g-index

80  
ext. papers

3,119  
ext. citations

6.3  
avg, IF

5.16  
L-index

#	Paper	IF	Citations
77	Systematic identification and expression profiles of the BAHD superfamily acyltransferases in barley ( <i>Hordeum vulgare</i> ).. <i>Scientific Reports</i> , <b>2022</b> , 12, 5063	4.9	1
76	Manipulation of Barley Development and Flowering Time by Exogenous Application of Plant Growth Regulators.. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 694424	6.2	4
75	APETALA2 functions as a temporal factor together with BLADE-ON-PETIOLE2 and MADS29 to control flower and grain development in barley. <i>Development (Cambridge)</i> , <b>2021</b> , 148,	6.6	6
74	MADS1 maintains barley spike morphology at high ambient temperatures. <i>Nature Plants</i> , <b>2021</b> , 7, 1093-1107	11.5	7
73	Rab-dependent vesicular traffic affects female gametophyte development in Arabidopsis. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 320-340	7	2
72	Three-dimensional imaging reveals that positions of cyst nematode feeding sites relative to xylem vessels differ between susceptible and resistant wheat. <i>Plant Cell Reports</i> , <b>2021</b> , 40, 393-403	5.1	2
71	The Rab Geranylgeranyl Transferase Beta Subunit Is Essential for Embryo and Seed Development in. <i>International Journal of Molecular Sciences</i> , <b>2021</b> , 22,	6.3	1
70	HvLEAFY controls the early stages of floral organ specification and inhibits the formation of multiple ovaries in barley. <i>Plant Journal</i> , <b>2021</b> , 108, 509-527	6.9	2
69	Establishing a regulatory blueprint for ovule number and function during plant development. <i>Current Opinion in Plant Biology</i> , <b>2021</b> , 63, 102095	9.9	0
68	Genome-wide association study reveals the genetic complexity of fructan accumulation patterns in barley grain. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 2383-2402	7	5
67	The RNA-dependent DNA methylation pathway is required to restrict expression to specify a single female germ cell precursor in. <i>Development (Cambridge)</i> , <b>2020</b> , 147,	6.6	13
66	Infection by cyst nematodes induces rapid remodelling of developing xylem vessels in wheat roots. <i>Scientific Reports</i> , <b>2020</b> , 10, 9025	4.9	2
65	Hybrid breeding in wheat: how shaping floral biology can offer new perspectives. <i>Functional Plant Biology</i> , <b>2020</b> , 47, 675-694	2.7	6
64	Misexpression of a transcriptional repressor candidate provides a molecular mechanism for the suppression of awns by Tipped 1 in wheat. <i>Journal of Experimental Botany</i> , <b>2020</b> , 71, 3428-3436	7	4
63	Deciphering aquaporin regulation and roles in seed biology. <i>Journal of Experimental Botany</i> , <b>2020</b> , 71, 1763-1773	7	9
62	Auxin treatment of grapevine ( <i>Vitis vinifera</i> L.) berries delays ripening onset by inhibiting cell expansion. <i>Plant Molecular Biology</i> , <b>2020</b> , 103, 91-111	4.6	6
61	Refining the genetic architecture of flag leaf glaucousness in wheat. <i>Theoretical and Applied Genetics</i> , <b>2020</b> , 133, 981-991	6	6

60	Targeted mutation of barley (1,3;1,4)- $\beta$ -glucan synthases reveals complex relationships between the storage and cell wall polysaccharide content. <i>Plant Journal</i> , <b>2020</b> , 104, 1009-1022	6.9	11
59	Genetic Architecture of Cereal Leaf Beetle Resistance in Wheat. <i>Plants</i> , <b>2020</b> , 9,	4.5	1
58	Overexpression of HvCslF6 in barley grain alters carbohydrate partitioning plus transfer tissue and endosperm development. <i>Journal of Experimental Botany</i> , <b>2020</b> , 71, 138-153	7	10
57	Dose-Dependent AGO1-Mediated Inhibition of the miRNA165/166 Pathway Modulates Stem Cell Maintenance in Shoot Apical Meristem. <i>Plant Communications</i> , <b>2020</b> , 1, 100002	9	8
56	Establishing a framework for female germline initiation in the plant ovule. <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 2937-2949	7	16
55	Ostkpr1 functions in anther cuticle development and pollen wall formation in rice. <i>BMC Plant Biology</i> , <b>2019</b> , 19, 104	5.3	23
54	Revisiting the Female Germline and Its Expanding Toolbox. <i>Trends in Plant Science</i> , <b>2019</b> , 24, 455-467	13.1	22
53	Barley grain (1,3;1,4)- $\beta$ -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
52	Natural Variation in Ovule Morphology Is Influenced by Multiple Tissues and Impacts Downstream Grain Development in Barley (L.). <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 1374	6.2	6
51	Translating auxin responses into ovules, seeds and yield: Insight from Arabidopsis and the cereals. <i>Journal of Integrative Plant Biology</i> , <b>2019</b> , 61, 310-336	8.3	26
50	A three-component system incorporating Ppd-D1, copy number variation at Ppd-B1, and numerous small-effect quantitative trait loci facilitates adaptation of heading time in winter wheat cultivars of worldwide origin. <i>Plant, Cell and Environment</i> , <b>2018</b> , 41, 1407-1416	8.4	30
49	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
48	Dissecting the role of MADS-box genes in monocot floral development and diversity. <i>Journal of Experimental Botany</i> , <b>2018</b> , 69, 2435-2459	7	56
47	The Central Role of the Ovule in Apomixis and Parthenocarpy <b>2018</b> , 234-270		1
46	Differences in hydrolytic enzyme activity accompany natural variation in mature aleurone morphology in barley ( <i>Hordeum vulgare</i> L.). <i>Scientific Reports</i> , <b>2018</b> , 8, 11025	4.9	17
45	Exploring the Role of Cell Wall-Related Genes and Polysaccharides during Plant Development. <i>Plants</i> , <b>2018</b> , 7,	4.5	31
44	Asexual Female Gametogenesis Involves Contact with a Sexually-Fated Megaspore in Apomictic. <i>Plant Physiology</i> , <b>2018</b> , 177, 1027-1049	6.6	20
43	Phenotypic and genetic analysis of spike and kernel characteristics in wheat reveals long-term genetic trends of grain yield components. <i>Theoretical and Applied Genetics</i> , <b>2018</b> , 131, 2071-2084	6	72

42	Exploring the Role of the Ovule in Cereal Grain Development and Reproductive Stress Tolerance <b>2018</b> , 181-216		6
41	Potential for Marker-Assisted Simultaneous Improvement of Grain and Biomass Yield in Triticale. <i>Bioenergy Research</i> , <b>2017</b> , 10, 449-455	3.1	11
40	A modern Green Revolution gene for reduced height in wheat. <i>Plant Journal</i> , <b>2017</b> , 92, 892-903	6.9	80
39	An optimised clearing protocol for the quantitative assessment of sub-epidermal ovule tissues within whole cereal pistils. <i>Plant Methods</i> , <b>2017</b> , 13, 67	5.8	13
38	A Genetic Screen for Impaired Systemic RNAi Highlights the Crucial Role of DICER-LIKE 2. <i>Plant Physiology</i> , <b>2017</b> , 175, 1424-1437	6.6	41
37	Isolation and structural elucidation by 2D NMR of planteose, a major oligosaccharide in the mucilage of chia ( <i>Salvia hispanica</i> L.) seeds. <i>Carbohydrate Polymers</i> , <b>2017</b> , 175, 231-240	10.3	21
36	Copy number variations of CBF genes at the Fr-A2 locus are essential components of winter hardness in wheat. <i>Plant Journal</i> , <b>2017</b> , 89, 764-773	6.9	44
35	The transition from somatic to germline identity shows conserved and specialized features during angiosperm evolution. <i>New Phytologist</i> , <b>2017</b> , 216, 495-509	9.8	30
34	Dissecting the Genetic Basis for Seed Coat Mucilage Heteroxylan Biosynthesis in Using Gamma Irradiation and Infrared Spectroscopy. <i>Frontiers in Plant Science</i> , <b>2017</b> , 8, 326	6.2	13
33	Multiple-line cross QTL mapping for grain yield and thousand kernel weight in triticale. <i>Plant Breeding</i> , <b>2016</b> , 135, 567-573	2.4	12
32	The Dynamics of Transcript Abundance during Cellularization of Developing Barley Endosperm. <i>Plant Physiology</i> , <b>2016</b> , 170, 1549-65	6.6	23
31	The Plant Cell Wall: A Complex and Dynamic Structure As Revealed by the Responses of Genes under Stress Conditions. <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 984	6.2	175
30	Differences in glycosyltransferase family 61 accompany variation in seed coat mucilage composition in <i>Plantago</i> spp. <i>Journal of Experimental Botany</i> , <b>2016</b> , 67, 6481-6495	7	24
29	A Rice Ca <sup>2+</sup> Binding Protein Is Required for Tapetum Function and Pollen Formation. <i>Plant Physiology</i> , <b>2016</b> , 172, 1772-1786	6.6	40
28	Ethylene inhibitors improve efficiency of microspore embryogenesis in hexaploid triticale. <i>Plant Cell, Tissue and Organ Culture</i> , <b>2015</b> , 122, 751-757	2.7	18
27	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
26	Stress treatments influence efficiency of microspore embryogenesis and green plant regeneration in hexaploid triticale ( <i>Triticosecale</i> Wittmack L.). <i>In Vitro Cellular and Developmental Biology - Plant</i> , <b>2014</b> , 50, 143-148	2.3	7
25	Mapping dynamic QTL for plant height in triticale. <i>BMC Genetics</i> , <b>2014</b> , 15, 59	2.6	47

24	Genetic architecture of winter hardiness and frost tolerance in triticale. <i>PLoS ONE</i> , <b>2014</b> , 9, e99848	3.7	15
23	Adult plant development in triticale ( <i>Triticosecale wittmack</i> ) is controlled by dynamic genetic patterns of regulation. <i>G3: Genes, Genomes, Genetics</i> , <b>2014</b> , 4, 1585-91	3.2	14
22	Traffic monitors at the cell periphery: the role of cell walls during early female reproductive cell differentiation in plants. <i>Current Opinion in Plant Biology</i> , <b>2014</b> , 17, 137-45	9.9	34
21	A protodermal miR394 signal defines a region of stem cell competence in the Arabidopsis shoot meristem. <i>Developmental Cell</i> , <b>2013</b> , 24, 125-32	10.2	167
20	Optimum design of family structure and allocation of resources in association mapping with lines from multiple crosses. <i>Heredity</i> , <b>2013</b> , 110, 71-9	3.6	32
19	Enlarging cells initiating apomixis in <i>Hieracium praealtum</i> transition to an embryo sac program prior to entering mitosis. <i>Plant Physiology</i> , <b>2013</b> , 163, 216-31	6.6	51
18	Accession-specific modifiers act with ZWILLE/ARGONAUTE10 to maintain shoot meristem stem cells during embryogenesis in Arabidopsis. <i>BMC Genomics</i> , <b>2013</b> , 14, 809	4.5	8
17	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
16	Somatic small RNA pathways promote the mitotic events of megagametogenesis during female reproductive development in Arabidopsis. <i>Development (Cambridge)</i> , <b>2012</b> , 139, 1399-404	6.6	112
15	Genome-wide evaluation of genetic diversity and linkage disequilibrium in winter and spring triticale ( <i>x Triticosecale Wittmack</i> ). <i>BMC Genomics</i> , <b>2012</b> , 13, 235	4.5	26
14	Improved efficiency of doubled haploid generation in hexaploid triticale by in vitro chromosome doubling. <i>BMC Plant Biology</i> , <b>2012</b> , 12, 109	5.3	39
13	Sporophytic ovule tissues modulate the initiation and progression of apomixis in <i>Hieracium</i> . <i>Journal of Experimental Botany</i> , <b>2012</b> , 63, 3229-41	7	34
12	Reduced expression of the SHORT-ROOT gene increases the rates of growth and development in hybrid poplar and Arabidopsis. <i>PLoS ONE</i> , <b>2011</b> , 6, e28878	3.7	20
11	Redundant and specific roles of the ARGONAUTE proteins AGO1 and ZLL in development and small RNA-directed gene silencing. <i>PLoS Genetics</i> , <b>2009</b> , 5, e1000646	6	95
10	Sexual and asexual (apomictic) seed development in flowering plants: molecular, morphological and evolutionary relationships. <i>Functional Plant Biology</i> , <b>2009</b> , 36, 490-504	2.7	50
9	Vascular signalling mediated by ZWILLE potentiates WUSCHEL function during shoot meristem stem cell development in the Arabidopsis embryo. <i>Development (Cambridge)</i> , <b>2008</b> , 135, 2839-43	6.6	100
8	Sexual and apomictic seed formation in <i>Hieracium</i> requires the plant polycomb-group gene FERTILIZATION INDEPENDENT ENDOSPERM. <i>Plant Cell</i> , <b>2008</b> , 20, 2372-86	11.6	50
7	Functional embryo sac formation in Arabidopsis without meiosis - one step towards asexual seed formation (apomixis) in crops?. <i>Journal of Biosciences</i> , <b>2008</b> , 33, 309-11	2.3	5

6	Connecting the paths in plant stem cell regulation. <i>Trends in Cell Biology</i> , <b>2007</b> , 17, 403-10	18.3	79
5	Sexual and apomictic reproduction in <i>Hieracium</i> subgenus <i>pilosella</i> are closely interrelated developmental pathways. <i>Plant Cell</i> , <b>2003</b> , 15, 1524-37	11.6	114
4	Advances in Apomixis Research: Can we Fix Heterosis? <b>2003</b> , 38-46		1
3	Dynamics of callose deposition and beta-1,3-glucanase expression during reproductive events in sexual and apomictic <i>Hieracium</i> . <i>Planta</i> , <b>2001</b> , 212, 487-98	4.7	53
2	Control of early seed development. <i>Annual Review of Cell and Developmental Biology</i> , <b>2001</b> , 17, 677-99	12.6	151
1	GWAS reveals the genetic complexity of fructan accumulation patterns in barley grain		1