

David Twell

List of Publications by Year in descending order

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127
papers

10,091
citations

30070

54
h-index

37204

96
g-index

135
all docs

135
docs citations

135
times ranked

7212
citing authors

#	ARTICLE	IF	CITATIONS
1	Transcriptome analysis of haploid male gametophyte development in Arabidopsis. <i>Genome Biology</i> , 2004, 5, R85.	8.8	658
2	Comparative Analysis of the Arabidopsis Pollen Transcriptome. <i>Plant Physiology</i> , 2003, 132, 640-652.	4.8	477
3	Male gametophyte development: a molecular perspective. <i>Journal of Experimental Botany</i> , 2009, 60, 1465-1478.	4.8	287
4	Promoter analysis of genes that are coordinately expressed during pollen development reveals pollen-specific enhancer sequences and shared regulatory elements. <i>Genes and Development</i> , 1991, 5, 496-507.	5.9	282
5	Isolation and expression of an anther-specific gene from tomato. <i>Molecular Genetics and Genomics</i> , 1989, 217, 240-245.	2.4	270
6	MOR1/GEM1 has an essential role in the plant-specific cytokinetic phragmoplast. <i>Nature Cell Biology</i> , 2002, 4, 711-714.	10.3	220
7	Functional architecture of a late pollen promoter: pollen-specific transcription is developmentally regulated by multiple stage-specific and co-dependent activator elements. <i>Plant Molecular Biology</i> , 1998, 37, 859-869.	3.9	219
8	A Novel Class of MYB Factors Controls Sperm-Cell Formation in Plants. <i>Current Biology</i> , 2005, 15, 244-248.	3.9	210
9	Transient Expression of Chimeric Genes Delivered into Pollen by Microprojectile Bombardment. <i>Plant Physiology</i> , 1989, 91, 1270-1274.	4.8	197
10	Functional analysis of cis-regulatory elements within the promoter of the tobacco late pollen gene g10. <i>Plant Molecular Biology</i> , 2001, 45, 577-585.	3.9	190
11	<i>In vivo</i> studies on the roles of Tic110, Tic40 and Hsp93 during chloroplast protein import. <i>Plant Journal</i> , 2005, 41, 412-428.	5.7	189
12	Selection of T-DNA-Tagged Male and Female Gametophytic Mutants by Segregation Distortion in Arabidopsis. <i>Genetics</i> , 1998, 149, 621-631.	2.9	189
13	Germline Specification and Function in Plants. <i>Annual Review of Plant Biology</i> , 2011, 62, 461-484.	18.7	186
14	Control of plant germline proliferation by SCFFBL17 degradation of cell cycle inhibitors. <i>Nature</i> , 2008, 455, 1134-1137.	27.8	180
15	SETH1 and SETH2, Two Components of the Glycosylphosphatidylinositol Anchor Biosynthetic Pathway, Are Required for Pollen Germination and Tube Growth in Arabidopsis [W]. <i>Plant Cell</i> , 2004, 16, 229-240.	6.6	178
16	Integrating Membrane Transport with Male Gametophyte Development and Function through Transcriptomics. <i>Plant Physiology</i> , 2006, 140, 1151-1168.	4.8	171
17	Induction of RNA-directed DNA methylation upon decondensation of constitutive heterochromatin. <i>EMBO Reports</i> , 2009, 10, 1015-1021.	4.5	167
18	The R2R3 MYB Transcription Factor DUO1 Activates a Male Germline-Specific Regulon Essential for Sperm Cell Differentiation in Arabidopsis. <i>Plant Cell</i> , 2011, 23, 534-549.	6.6	160

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19	Genetic modification of potato development using Ri T-DNA. <i>Theoretical and Applied Genetics</i> , 1985, 70, 440-446.	3.6	156
20	A Plant Germline-Specific Integrator of Sperm Specification and Cell Cycle Progression. <i>PLoS Genetics</i> , 2009, 5, e1000430.	3.5	152
21	A decade of pollen transcriptomics. <i>Plant Reproduction</i> , 2015, 28, 73-89.	2.2	149
22	Asymmetric division and cell-fate determination in developing pollen. <i>Trends in Plant Science</i> , 1998, 3, 305-310.	8.8	148
23	Expression Patterns of a Novel AtCHX Gene Family Highlight Potential Roles in Osmotic Adjustment and K ⁺ Homeostasis in Pollen Development. <i>Plant Physiology</i> , 2004, 136, 2532-2547.	4.8	148
24	Male gametogenesis and germline specification in flowering plants. <i>Sexual Plant Reproduction</i> , 2011, 24, 149-160.	2.2	146
25	Pollen Development at High Temperature: From Acclimation to Collapse. <i>Plant Physiology</i> , 2017, 173, 1967-1976.	4.8	145
26	Imprinting of the Polycomb Group Gene MEDEA Serves as a Ploidy Sensor in Arabidopsis. <i>PLoS Genetics</i> , 2009, 5, e1000663.	3.5	141
27	The Significance of Microspore Division and Division Symmetry for Vegetative Cell-Specific Transcription and Generative Cell Differentiation.. <i>Plant Cell</i> , 1995, 7, 65-74.	6.6	137
28	Male Germ Line Development in Arabidopsis. duo pollen Mutants Reveal Gametophytic Regulators of Generative Cell Cycle Progression. <i>Plant Physiology</i> , 2005, 137, 297-307.	4.8	126
29	Activities of CaMV 35S and nos promoters in pollen: implications for field release of transgenic plants. <i>Journal of Experimental Botany</i> , 1997, 48, 265-275.	4.8	124
30	Fertilization Recovery after Defective Sperm Cell Release in Arabidopsis. <i>Current Biology</i> , 2012, 22, 1084-1089.	3.9	118
31	A Molecular-Genetic Study of the Arabidopsis Toc75 Gene Family. <i>Plant Physiology</i> , 2005, 138, 715-733.	4.8	117
32	<i>CLO/GFA1</i> and <i>ATO</i> are novel regulators of gametic cell fate in plants. <i>Plant Journal</i> , 2008, 56, 913-921.	5.7	117
33	MicroRNA and tasiRNA diversity in mature pollen of Arabidopsis thaliana. <i>BMC Genomics</i> , 2009, 10, 643.	2.8	112
34	AtCSLA7, a Cellulose Synthase-Like Putative Glycosyltransferase, Is Important for Pollen Tube Growth and Embryogenesis in Arabidopsis. <i>Plant Physiology</i> , 2003, 131, 547-557.	4.8	109
35	Dual function of Arabidopsis glucan synthase-like genes <i>GSL8</i> and <i>GSL10</i> in male gametophyte development and plant growth. <i>Plant Journal</i> , 2008, 54, 911-923.	5.7	101
36	A Divergent Cellular Role for the FUSED Kinase Family in the Plant-Specific Cytokinetic Phragmoplast. <i>Current Biology</i> , 2005, 15, 2107-2111.	3.9	98

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37	MADS-complexes regulate transcriptome dynamics during pollen maturation. <i>Genome Biology</i> , 2007, 8, R249.	9.6	95
38	AtbZIP34 is required for Arabidopsis pollen wall patterning and the control of several metabolic pathways in developing pollen. <i>Plant Molecular Biology</i> , 2009, 70, 581-601.	3.9	86
39	Analysis of Transposon Insertion Mutants Highlights the Diversity of Mechanisms Underlying Male Progametic Development in Arabidopsis. <i>Genetics</i> , 2004, 167, 1975-1986.	2.9	84
40	<i>Arabidopsis</i> DUO POLLEN3 Is a Key Regulator of Male Germline Development and Embryogenesis. <i>Plant Cell</i> , 2009, 21, 1940-1956.	6.6	82
41	Identification of a Sphingolipid β -Glucuronosyltransferase That Is Essential for Pollen Function in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2014, 26, 3314-3325.	6.6	80
42	Genetic manipulation in cultivars of oilseed rape (<i>Brassica napus</i>) using <i>Agrobacterium</i> . <i>Theoretical and Applied Genetics</i> , 1985, 71, 325-329.	3.6	78
43	Endoplasmic Reticulum and Golgi-Localized Phospholipase A2 Plays Critical Roles in <i>Arabidopsis</i> Pollen Development and Germination. <i>Plant Cell</i> , 2011, 23, 94-110.	6.6	76
44	Novel Patterns of Ectopic Cell Plate Growth and Lipid Body Distribution in the <i>Arabidopsis</i> gemini pollen1 Mutant. <i>Plant Physiology</i> , 2001, 126, 899-909.	4.8	75
45	Genetic Control of Male Germ Unit Organization in Arabidopsis. <i>Plant Physiology</i> , 2002, 129, 865-875.	4.8	73
46	Regulation of pollen tube growth by Rac-like GTPases. <i>Journal of Experimental Botany</i> , 2003, 54, 73-81.	4.8	72
47	Functional dissection of the promoter of the pollen-specific gene <i>NTP303</i> reveals a novel pollen-specific, and conserved cis-regulatory element. <i>Plant Journal</i> , 1995, 8, 55-63.	5.7	71
48	Proliferation and cell fate establishment during Arabidopsis male gametogenesis depends on the Retinoblastoma protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 7257-7262.	7.1	69
49	Structural diversity of the patatin gene family in potato cv. Desiree. <i>Molecular Genetics and Genomics</i> , 1988, 212, 325-336.	2.4	68
50	Small RNA Pathways Are Present and Functional in the Angiosperm Male Gametophyte. <i>Molecular Plant</i> , 2009, 2, 500-512.	8.3	68
51	An EAR-Dependent Regulatory Module Promotes Male Germ Cell Division and Sperm Fertility in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2014, 26, 2098-2113.	6.6	67
52	Young Genes out of the Male: An Insight from Evolutionary Age Analysis of the Pollen Transcriptome. <i>Molecular Plant</i> , 2015, 8, 935-945.	8.3	64
53	Use of a nuclear-targeted beta-glucuronidase fusion protein to demonstrate vegetative cell-specific gene expression in developing pollen. <i>Plant Journal</i> , 1992, 2, 887-892.	5.7	62
54	Artificial microRNAs reveal cell-specific differences in small RNA activity in pollen. <i>Current Biology</i> , 2013, 23, R599-R601.	3.9	61

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55	Comparative transcriptomic analysis reveals conserved programmes underpinning organogenesis and reproduction in land plants. <i>Nature Plants</i> , 2021, 7, 1143-1159.	9.3	61
56	The SIDECAR POLLEN gene encodes a microspore-specific LOB/AS2 domain protein required for the correct timing and orientation of asymmetric cell division. <i>Plant Journal</i> , 2010, 64, 839-850.	5.7	60
57	The conserved cysteine-rich domain of a tesmin/TSO1-like protein binds zinc in vitro and TSO1 is required for both male and female fertility in <i>Arabidopsis thaliana</i> . <i>Journal of Experimental Botany</i> , 2007, 58, 3657-3670.	4.8	59
58	The evolution and patterning of male gametophyte development. <i>Current Topics in Developmental Biology</i> , 2019, 131, 257-298.	2.2	56
59	Novel Anther-Specific myb Genes from Tobacco as Putative Regulators of Phenylalanine Ammonia-Lyase Expression. <i>Plant Physiology</i> , 2001, 126, 1738-1753.	4.8	55
60	Epigenetic reprogramming rewires transcription during the alternation of generations in <i>Arabidopsis</i> . <i>ELife</i> , 2021, 10, .	6.0	55
61	Developmental regulation of RI TL-DNA gene expression in roots, shoots and tubers of transformed potato (<i>Solanum tuberosum</i> cv. Desiree). <i>Plant Molecular Biology</i> , 1986, 6, 321-330.	3.9	54
62	The Putative <i>Arabidopsis</i> Homolog of Yeast Vps52p Is Required for Pollen Tube Elongation, Localizes to Golgi, and Might Be Involved in Vesicle Trafficking. <i>Plant Physiology</i> , 2004, 135, 1480-1490.	4.8	54
63	Transcription factor DUO1 generated by neo-functionalization is associated with evolution of sperm differentiation in plants. <i>Nature Communications</i> , 2018, 9, 5283.	12.8	54
64	A Conserved, Mg ²⁺ -Dependent Exonuclease Degrades Organelle DNA during <i>Arabidopsis</i> Pollen Development. <i>Plant Cell</i> , 2011, 23, 1608-1624.	6.6	53
65	Maturation-specific translational enhancement mediated by the 5'-UTR of a late pollen transcript. <i>Plant Journal</i> , 1996, 10, 613-623.	5.7	52
66	Expression of β -galactosidase and β -xylosidase genes during microspore and pollen development. <i>Planta</i> , 2005, 220, 931-940.	3.2	52
67	The 5' Untranslated Region of the ntp303 Gene Strongly Enhances Translation during Pollen Tube Growth, But Not during Pollen Maturation. <i>Plant Physiology</i> , 2002, 129, 342-353.	4.8	51
68	Identification of microspore-active promoters that allow targeted manipulation of gene expression at early stages of microgametogenesis in <i>Arabidopsis</i> . <i>BMC Plant Biology</i> , 2006, 6, 31.	3.6	48
69	Differential gene expression and alternative splicing in insect immune specificity. <i>BMC Genomics</i> , 2014, 15, 1031.	2.8	48
70	Translation initiation factors eIF4E and eIFiso4E are required for polysome formation and regulate plant growth in tobacco. <i>Plant Molecular Biology</i> , 2005, 57, 749-760.	3.9	45
71	The Small Cysteine-Rich Protein P14 of Beet Necrotic Yellow Vein Virus Regulates Accumulation of RNA 2 in Cis and Coat Protein in Trans. <i>Virology</i> , 1995, 210, 73-81.	2.4	42
72	The translationally repressed pollen-specific ntp303 mRNA is stored in non-polysomal mRNPs during pollen maturation. <i>Sexual Plant Reproduction</i> , 2000, 13, 135-144.	2.2	42

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73	Arabidopsis Fused kinase and the Kinesin ϵ 12 subfamily constitute a signalling module required for phragmoplast expansion. <i>Plant Journal</i> , 2012, 72, 308-319.	5.7	41
74	The 5' flanking DNA of a patatin gene directs tuber specific expression of a chimaeric gene in potato. <i>Plant Molecular Biology</i> , 1987, 9, 345-375.	3.9	40
75	A novel nucleic acid helicase gene identified by promoter trapping in Arabidopsis. <i>Plant Journal</i> , 1997, 11, 1307-1314.	5.7	39
76	Differential activation and conserved vegetative cell-specific activity of a late pollen promoter in species with bicellular and tricellular pollen. <i>Plant Journal</i> , 1994, 5, 543-550.	5.7	39
77	The tobacco MAP215/Dis1-family protein TMBP200 is required for the functional organization of microtubule arrays during male germline establishment. <i>Journal of Experimental Botany</i> , 2010, 61, 969-981.	4.8	38
78	Arabidopsis Kinesins HINKEL and TETRASPORE Act Redundantly to Control Cell Plate Expansion during Cytokinesis in the Male Gametophyte. <i>Molecular Plant</i> , 2008, 1, 794-799.	8.3	37
79	Life after meiosis: patterning the angiosperm male gametophyte. <i>Biochemical Society Transactions</i> , 2010, 38, 577-582.	3.4	37
80	Organelles maintain spindle position in plant meiosis. <i>Nature Communications</i> , 2015, 6, 6492.	12.8	37
81	An evolutionary conserved group of plant GSK-3/shaggy-like protein kinase genes preferentially expressed in developing pollen. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 1998, 1442, 261-273.	2.4	35
82	Diphtheria toxin-mediated cell ablation in developing pollen: Vegetative cell ablation blocks generative cell migration. <i>Protoplasma</i> , 1995, 187, 144-154.	2.1	34
83	Functional divergence of the duplicated <i>AtKIN14a</i> and <i>AtKIN14b</i> genes: critical roles in Arabidopsis meiosis and gametophyte development. <i>Plant Journal</i> , 2008, 53, 1013-1026.	5.7	34
84	The Significance of Microspore Division and Division Symmetry for Vegetative Cell-Specific Transcription and Generative Cell Differentiation. <i>Plant Cell</i> , 1995, 7, 65.	6.6	33
85	The pollen-specific gene Ntp303 encodes a 69-kDa glycoprotein associated with the vegetative membranes and the cell wall. <i>Sexual Plant Reproduction</i> , 2000, 12, 276-284.	2.2	32
86	Pollen Development, a Genetic and Transcriptomic View. , 0, , 15-45.		29
87	<i>BURSTING POLLEN</i> is required to organize the pollen germination plaque and pollen tube tip in <i>Arabidopsis thaliana</i> . <i>New Phytologist</i> , 2015, 206, 255-267.	7.3	28
88	Optimization of transient gene expression in pollen of Norway spruce (<i>Picea abies</i>) by particle acceleration. <i>Physiologia Plantarum</i> , 1994, 92, 412-416.	5.2	27
89	Gemini pollen 2, a male and female gametophytic cytokinesis defective mutation. <i>Sexual Plant Reproduction</i> , 2004, 17, 63-70.	2.2	27
90	Small RNA activity and function in angiosperm gametophytes. <i>Journal of Experimental Botany</i> , 2011, 62, 1601-1610.	4.8	24

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91	Nucleoporin MOS7/Nup88 is required for mitosis in gametogenesis and seed development in <i>Arabidopsis</i> . Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18393-18398.	7.1	23
92	Expression of shoot-inducing Ti TL-DNA in differentiated tissues of potato (<i>Solanum tuberosum</i> cv) Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50	3.9	22
93	Activation and developmental regulation of an <i>Arabidopsis</i> anther-specific promoter in microspores and pollen of <i>Nicotiana tabacum</i> . Sexual Plant Reproduction, 1993, 6, 217.	2.2	19
94	<i>Arabidopsis</i> Gene Family Profiler (aGFP) – user-oriented transcriptomic database with easy-to-use graphic interface. BMC Plant Biology, 2007, 7, 39.	3.6	18
95	<i>Arabidopsis</i> Fused kinase TWO-IN-ONE dominantly inhibits male meiotic cytokinesis. Plant Reproduction, 2014, 27, 7-17.	2.2	18
96	SYBR Green-activated sorting of <i>Arabidopsis</i> pollen nuclei based on different DNA/RNA content. Plant Reproduction, 2015, 28, 61-72.	2.2	18
97	Analysis of <i>gemini pollen 3</i> mutant suggests a broad function of <i>AUGMIN</i> in microtubule organization during sexual reproduction in <i>Arabidopsis</i> . Plant Journal, 2016, 87, 188-201.	5.7	18
98	Analysis of the promoter of an abscisic acid responsive late embryogenesis abundant gene of <i>Arabidopsis thaliana</i> . Plant Science, 1996, 114, 181-192.	3.6	17
99	Small RNAs in angiosperm gametophytes: from epigenetics to gamete development. Genes and Development, 2010, 24, 1081-1085.	5.9	17
100	Pollen viability and transgene expression following storage in honey. Transgenic Research, 1995, 4, 226-231.	2.4	16
101	halfman, an <i>Arabidopsis</i> male gametophytic mutant associated with a 150kb chromosomal deletion adjacent to an introduced Ds transposable element. Sexual Plant Reproduction, 2003, 16, 99-102.	2.2	16
102	A Conserved cis-Regulatory Module Determines Germline Fate through Activation of the Transcription Factor DUO1 Promoter. Plant Physiology, 2017, 173, 280-293.	4.8	16
103	Analysis of a translational enhancer upstream from the coat protein open reading frame of potato virus S. Archives of Virology, 1994, 134, 321-333.	2.1	15
104	Methanol does not specifically inhibit endogenous β -glucuronidase (GUS) activity. Plant Science, 1994, 97, 61-67.	3.6	15
105	Generalization of DNA microarray dispersion properties: microarray equivalent of t-distribution. Biology Direct, 2006, 1, 27.	4.6	15
106	MYB81, a microspore-specific GAMYB transcription factor, promotes pollen mitosis I and cell lineage formation in <i>Arabidopsis</i> . Plant Journal, 2020, 101, 590-603.	5.7	14
107	Analysis of a translational enhancer present within the 5'-terminal sequence of the genomic RNA of potato virus S. Archives of Virology, 1999, 144, 1451-1461.	2.1	13
108	Isolation and characterisation of two pollen-specific LIM domain protein cDNAs from <i>Nicotiana tabacum</i> . Sexual Plant Reproduction, 2000, 12, 339-345.	2.2	13

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109	A ticket for the live show: Microtubules in male gametophyte development. <i>Plant Signaling and Behavior</i> , 2010, 5, 614-617.	2.4	13
110	<i>SIDECAR POLLEN</i> suggests a plant-specific regulatory network underlying asymmetric microspore division in <i>Arabidopsis</i> . <i>Plant Signaling and Behavior</i> , 2011, 6, 416-419.	2.4	12
111	Deletion analysis of pollen-expressed promoters. <i>In Vitro Cellular and Developmental Biology - Plant</i> , 1991, 27, 15-20.	2.1	10
112	Pollen as a target of environmental changes. <i>Plant Reproduction</i> , 2016, 29, 1-2.	2.2	10
113	Analysis of gene regulation in growing pollen tubes of angiosperm and gymnosperm species using microprojectile bombardment. <i>Physiologia Plantarum</i> , 1995, 93, 445-450.	5.2	9
114	Analysis of gene regulation in growing pollen tubes of angiosperm and gymnosperm species using microprojectile bombardment. <i>Physiologia Plantarum</i> , 1995, 93, 445-450.	5.2	9
115	In vivo characterisation of a translational enhancer upstream from the coat protein open reading frame of potato virus S. <i>Archives of Virology</i> , 1994, 137, 123-132.	2.1	8
116	Transcriptome Analysis of <i>Hamelia patens</i> (Rubiaceae) Anthers Reveals Candidate Genes for Tapetum and Pollen Wall Development. <i>Frontiers in Plant Science</i> , 2017, 7, 1991.	3.6	8
117	Pollen maturation: Where ubiquitin is not required?. <i>BioEssays</i> , 1994, 16, 873-875.	2.5	7
118	A blossoming romance: gamete interactions in flowering plants. <i>Nature Cell Biology</i> , 2006, 8, 14-16.	10.3	7
119	A dynamic DUO of regulatory proteins coordinates gamete specification and germ cell mitosis in the angiosperm male germline. <i>Plant Signaling and Behavior</i> , 2009, 4, 1159-1162.	2.4	4
120	A novel transient assay system demonstrates that DT-Atsm is a temperature-sensitive toxin in plant tissues. <i>Plant Science</i> , 1996, 113, 59-65.	3.6	3
121	Analysis of Fluorescent Reporter Activity in the Male Germline During Pollen Development by Confocal Microscopy. <i>Methods in Molecular Biology</i> , 2017, 1669, 67-75.	0.9	3
122	Optimization of transient gene expression in pollen of Norway spruce (<i>Picea abies</i>) by particle acceleration. <i>Physiologia Plantarum</i> , 1994, 92, 412-416.	5.2	3
123	Transformation of pollen by particle bombardment. , 1991, , 631-644.		2
124	Identification of Cis-Regulatory Modules that Function in the Male Germline of Flowering Plants. <i>Methods in Molecular Biology</i> , 2017, 1669, 275-293.	0.9	1
125	Male Gametogenesis. , 2004, , 663-668.		0
126	Expression of four <i>S. pneumoniae</i> type 2 polysaccharide biosynthetic enzymes utilising the endogenous Kex2 protease activity in tobacco. <i>Pakistan Journal of Pharmaceutical Sciences</i> , 2017, 30, 439-448.	0.2	0

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127	Overexpression of TWO-IN-ONE Domains Inhibits Cytokinesis in Arabidopsis. Journal of Plant Biology, 0, , .	2.1	0