Venkatesan Sundaresan

List of Publications by Year
in descending order

98 papers	14,255 citations	23500 58 h-index	38300 95 g-index
168 all docs	168 docs citations	168 times ranked	12494 citing authors

#	Article	IF	Citations
1	Structure, variation, and assembly of the root-associated microbiomes of rice. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E911-20.	3.3	2,016
2	Patterns of gene action in plant development revealed by enhancer trap and gene trap transposable elements.. Genes and Development, 1995, 9, 1797-1810.	2.7	671
3	Genetic and molecular identification of genes required for female gametophyte development and function in Arabidopsis. Development (Cambridge), 2005, 132, 603-614.	1.2	538
4	The SPOROCYTELESS gene of Arabidopsis is required for initiation of sporogenesis and encodes a novel nuclear protein. Genes and Development, 1999, 13, 2108-2117.	2.7	456
5	VANGUARD1 Encodes a Pectin Methylesterase That Enhances Pollen Tube Growth in the Arabidopsis Style and Transmitting Tract. Plant Cell, 2005, 17, 584-596.	3.1	386
6	Compositional shifts in root-associated bacterial and archaeal microbiota track the plant life cycle in field-grown rice. PLoS Biology, 2018, 16, e2003862.	2.6	340
7	Drought Stress Results in a Compartment-Specific Restructuring of the Rice Root-Associated Microbiomes. MBio, 2017, 8, .	1.8	336
8	<i>Arabidopsis</i> CYCD3 D-type cyclins link cell proliferation and endocycles and are rate-limiting for cytokinin responses. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14537-14542.	3.3	333
9	Computational prediction of miRNAs in Arabidopsis thaliana. Genome Research, 2005, 15, 78-91.	2.4	324
10	A male-expressed rice embryogenic trigger redirected for asexual propagation through seeds. Nature, 2019, 565, 91-95.	13.7	324
11	Nonredundant Regulation of Rice Arbuscular Mycorrhizal Symbiosis by Two Members of the <i>PHOSPHATE TRANSPORTER1</i> Gene Family. Plant Cell, 2012, 24, 4236-4251.	3.1	306
12	TAPETUM DETERMINANT1 Is Required for Cell Specialization in the Arabidopsis Anther. Plant Cell, 2003, 15, 2792-2804.	3.1	305
13	The indeterminate Gene Encodes a Zinc Finger Protein and Regulates a Leaf-Generated Signal Required for the Transition to Flowering in Maize. Cell, 1998, 93, 593-603.	13.5	293
14	Analysis of Flanking Sequences fromDissociationInsertion Lines: A Database for Reverse Genetics in Arabidopsis. Plant Cell, 1999, 11, 2263-2270.	3.1	287
15	Clusters and superclusters of phased small RNAs in the developing inflorescence of rice. Genome Research, 2009, 19, 1429-1440.	2.4	283
16	The Arabidopsis myc/bHLH gene ALCATRAZ enables cell separation in fruit dehiscence. Current Biology, 2001, 11, 1914-1922.	1.8	274
17	Gene trap tagging of PROLIFERA, an essential MCM2-3-5-like gene in Arabidopsis. Science, 1995, 268, 877-880.	6.0	266
18	Auxin-Dependent Patterning and Gamete Specification in the <i>Arabidopsis</i> Female Gametophyte. Science, 2009, 324, 1684-1689.	6.0	252

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19	Cell-Fate Switch of Synergid to Egg Cell in<i>Arabidopsis eostre</i>Mutant Embryo Sacs Arises from Misexpression of the BEL1-Like Homeodomain Gene<i>BLH1</i>. Plant Cell, 2007, 19, 3578-3592.	3.1	242
20	Plant cyclins: a unified nomenclature for plant A-, B- and D-type cyclins based on sequence organization. Plant Molecular Biology, 1996, 32, 1003-1018.	2.0	232
21	YABBY Polarity Genes Mediate the Repression of KNOX Homeobox Genes in Arabidopsis. Plant Cell, 2002, 14, 2761-2770.	3.1	229
22	Directed transposon Tn5 mutagenesis and complementation analysis of rhizobium meliloti symbiotic nitrogen fixation genes. Cell, 1982, 29, 551-559.	13.5	228
23	Rice Mutant Resources for Gene Discovery. Plant Molecular Biology, 2004, 54, 325-334.	2.0	221
24	Isolation and characterization of cDNA clones encoding a functional p34cdc2 homologue from Zea mays.. Proceedings of the National Academy of Sciences of the United States of America, 1991, 88, 3377-3381.	3.3	210
25	Functional genomics in Arabidopsis: large-scale insertional mutagenesis complements the genome sequencing project. Current Opinion in Biotechnology, 2000, 11, 157-161.	3.3	207
26	Establishing an efficient <i>Ac/Ds</i> tagging system in rice: largeâ€scale analysis of <i>Ds</i> flanking sequences. Plant Journal, 2004, 37, 301-314.	2.8	192
27	A Rhizobium meliloti symbiotic regulatory gene. Cell, 1984, 36, 1035-1043.	13.5	174
28	Control of axillary bud initiation and shoot architecture in Arabidopsis through the SUPERSHOOT gene. Genes and Development, 2001, 15, 1577-1588.	2.7	169
29	Mutant Resources in Rice for Functional Genomics of the Grasses. Plant Physiology, 2009, 149, 165-170.	2.3	167
30	Maternal Control of Male-Gamete Delivery in<i>Arabidopsis</i>Involves a Putative GPI-Anchored Protein Encoded by the<i>LORELEI</i>Gene. Plant Cell, 2008, 20, 3038-3049.	3.1	166
31	SLOW WALKER1, Essential for Gametogenesis in Arabidopsis, Encodes a WD40 Protein Involved in 18S Ribosomal RNA Biogenesis. Plant Cell, 2005, 17, 2340-2354.	3.1	163
32	Analysis of the Female Gametophyte Transcriptome of Arabidopsis by Comparative Expression Profiling. Plant Physiology, 2005, 139, 1853-1869.	2.3	150
33	Clonal analysis of the Arabidopsis root confirms that position, not lineage, determines cell fate. Planta, 2000, 211, 191-199.	1.6	145
34	The halfâ€size ABC transporters STR1 and STR2 are indispensable for mycorrhizal arbuscule formation in rice. Plant Journal, 2012, 69, 906-920.	2.8	131
35	Klebsiella pneumoniae nifA product activates the Rhizobium meliloti nitrogenase promoter. Nature, 1983, 301, 728-732.	13.7	130
36	Prolonged drought imparts lasting compositional changes to the rice root microbiome. Nature Plants, 2021, 7, 1065-1077.	4.7	111

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37	Control of seed size in plants. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17887-17888.	3.3	104
38	Genetics of gametophyte biogenesis in Arabidopsis. Current Opinion in Plant Biology, 2000, 3, 53-57.	3.5	102
39	The Rapidly Evolving Centromere-Specific Histone Has Stringent Functional Requirements in<i>Arabidopsis thaliana</i>. Genetics, 2010, 186, 461-471.	1.2	101
40	Cloning of four cyclins from maize indicates that higher plants have three structurally distinct groups of mitotic cyclins.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 7375-7379.	3.3	100
41	Efficient insertional mutagenesis in rice using the maize En/Spm elements. Plant Journal, 2005, 44, 879-892.	2.8	100
42	A haploid genetics toolbox for Arabidopsis thaliana. Nature Communications, 2014, 5, 5334.	5.8	100
43	TheNOMEGAgene required for female gametophyte development encodes the putative APC6/CDC16 component of the Anaphase Promoting Complex inArabidopsis. Plant Journal, 2003, 36, 853-866.	2.8	98
44	<i>oiwa</i>, a Female Gametophytic Mutant Impaired in a Mitochondrial Manganese-Superoxide Dismutase, Reveals Crucial Roles for Reactive Oxygen Species during Embryo Sac Development and Fertilization in <i>Arabidopsis</i> Â Â. Plant Cell, 2013, 25, 1573-1591.	3.1	96
45	Transcriptomes of isolated <i>Oryza sativa</i> gametes characterized by deep sequencing: evidence for distinct sexâ€dependent chromatin and epigenetic states before fertilization. Plant Journal, 2013, 76, 729-741.	2.8	89
46	Pattern formation in miniature: the female gametophyte of flowering plants. Development (Cambridge), 2010, 137, 179-189.	1.2	88
47	Promoters regulated by the glnG (ntrC) and nifA gene products share a heptameric consensus sequence in the -15 region.. Proceedings of the National Academy of Sciences of the United States of America, 1983, 80, 2524-2528.	3.3	84
48	A Collection of <i>Ds</i> Insertional Mutants Associated With Defects in Male Gametophyte Development and Function in <i>Arabidopsis thaliana</i>. Genetics, 2009, 181, 1369-1385.	1.2	84
49	The Zygotic Transition Is Initiated in Unicellular Plant Zygotes with Asymmetric Activation of Parental Genomes. Developmental Cell, 2017, 43, 349-358.e4.	3.1	83
50	â€˜Florigenâ€™ enters the molecular age: long-distance signals that cause plants to flower. Trends in Biochemical Sciences, 2000, 25, 236-240.	3.7	82
51	Auxin Import and Local Auxin Biosynthesis Are Required for Mitotic Divisions, Cell Expansion and Cell Specification during Female Gametophyte Development in Arabidopsis thaliana. PLoS ONE, 2015, 10, e0126164.	1.1	80
52	Activation of Klebsiella pneumoniae and Rhizobium meliloti nitrogenase promoters by gln (ntr) regulatory proteins.. Proceedings of the National Academy of Sciences of the United States of America, 1983, 80, 4030-4034.	3.3	79
53	Horizontal spread of transposon mutagenesis: new uses for old elements. Trends in Plant Science, 1996, 1, 184-190.	4.3	79
54	An extrachromosomal form of the Mu transposons of maize.. Proceedings of the National Academy of Sciences of the United States of America, 1987, 84, 4924-4928.	3.3	73

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55	Development of Flowering Plant Gametophytes. Current Topics in Developmental Biology, 2010, 91, 379-412.	1.0	73
56	Functional Analysis of the Tandem-Duplicated P450 Genes SPS/BUS/CYP79F1 and CYP79F2 in Glucosinolate Biosynthesis and Plant Development by Ds Transposition-Generated Double Mutants. Plant Physiology, 2004, 135, 840-848.	2.3	70
57	Somatic excision of theMu1transposable element of maize. Nucleic Acids Research, 1991, 19, 579-584.	6.5	67
58	A recombination hotspot in the maize A1 intragenic region. Theoretical and Applied Genetics, 1991, 81, 185-188.	1.8	64
59	A Versatile Transposon-Based Activation Tag Vector System for Functional Genomics in Cereals and Other Monocot Plants. Plant Physiology, 2008, 146, 189-199.	2.3	64
60	Transposons as tools for functional genomics. Plant Physiology and Biochemistry, 2001, 39, 243-252.	2.8	62
61	<i>SLOW WALKER2</i>, a NOC1/MAK21 Homologue, Is Essential for Coordinated Cell Cycle Progression during Female Gametophyte Development in Arabidopsis. Plant Physiology, 2009, 151, 1486-1497.	2.3	59
62	ARF2â€“ARF4 and ARF5 are Essential for Female and Male Gametophyte Development in Arabidopsis. Plant and Cell Physiology, 2018, 59, 179-189.	1.5	55
63	The CKI1 Histidine Kinase Specifies the Female Gametic Precursor of the Endosperm. Developmental Cell, 2016, 37, 34-46.	3.1	54
64	Soil domestication by rice cultivation results in plant-soil feedback through shifts in soil microbiota. Genome Biology, 2019, 20, 221.	3.8	54
65	The polycomb group gene <i><scp>EMF</scp>2B</i> is essential for maintenance of floral meristem determinacy in rice. Plant Journal, 2014, 80, 883-894.	2.8	53
66	Production of a High-Efficiency TILLING Population through Polyploidization Â Â Â. Plant Physiology, 2013, 161, 1604-1614.	2.3	48
67	The<i>TORMOZ</i>Gene Encodes a Nucleolar Protein Required for Regulated Division Planes and Embryo Development in<i>Arabidopsis</i>. Plant Cell, 2007, 19, 2246-2263.	3.1	47
68	<i>Arabidopsis GLAUCE</i>promotes fertilization-independent endosperm development and expression of paternally inherited alleles. Development (Cambridge), 2007, 134, 4107-4117.	1.2	39
69	Bioactive diterpenoids impact the composition of the root-associated microbiome in maize (Zea mays). Scientific Reports, 2021, 11, 333.	1.6	36
70	Pollen tube entry into the synergid cell of Arabidopsis is observed at a site distinct from the filiform apparatus. Plant Reproduction, 2013, 26, 93-99.	1.3	35
71	Molecular cloning of ABNORMAL FLORALâ€ˆORGANS : a gene required for flower development in Arabidopsis. Sexual Plant Reproduction, 1999, 12, 118-122.	2.2	34
72	Genome-wide redistribution of 24-nt siRNAs in rice gametes. Genome Research, 2020, 30, 173-184.	2.4	32

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73	An Inducible Targeted Tagging System for Localized Saturation Mutagenesis in Arabidopsis. Plant Physiology, 2005, 137, 3-12.	2.3	30
74	Antipodal cells persist through fertilization in the female gametophyte of Arabidopsis. Plant Reproduction, 2014, 27, 197-203.	1.3	29
75	AHP2, AHP3, and AHP5 act downstream of CKI1 in Arabidopsis female gametophyte development. Journal of Experimental Botany, 2017, 68, 3365-3373.	2.4	29
76	Comparative Analysis of Root Microbiomes of Rice Cultivars with High and Low Methane Emissions Reveals Differences in Abundance of Methanogenic Archaea and Putative Upstream Fermenters. MSystems, 2020, 5, .	1.7	29
77	Binding sites for maize nuclear proteins in the terminal inverted repeats of the Mul transposable element. Molecular Genetics and Genomics, 1991, 229, 17-26.	2.4	27
78	Molecular Characterization of the <i>glauce</i> Mutant: A Central Cellâ€"Specific Function Is Required for Double Fertilization in <i>Arabidopsis</i>. Plant Cell, 2012, 24, 3264-3277.	3.1	25
79	Extraction and 16S rRNA Sequence Analysis of Microbiomes Associated with Rice Roots. Bio-protocol, 2018, 8, e2884.	0.2	25
80	Plant zygote development: recent insights and applications to clonal seeds. Current Opinion in Plant Biology, 2021, 59, 101993.	3.5	22
81	Recent advances in understanding female gametophyte development. F1000Research, 2018, 7, 804.	0.8	21
82	The Armadillo Repeat Gene <i>ZAK IXIK</i> Promotes <i>Arabidopsis</i> Early Embryo and Endosperm Development through a Distinctive Gametophytic Maternal Effect. Plant Cell, 2012, 24, 4026-4043.	3.1	19
83	Coordinated Activation of ARF1 GTPases by ARF-GEF GNOM Dimers Is Essential for Vesicle Trafficking in Arabidopsis. Plant Cell, 2020, 32, 2491-2507.	3.1	17
84	Analysis of splice donor and acceptor site function in a transposable gene trap derived from the maize element Activator. Molecular Genetics and Genomics, 1995, 249, 91-101.	2.4	16
85	Step-by-step protocols for rice gamete isolation. Plant Reproduction, 2019, 32, 5-13.	1.3	15
86	A Weed Reaches New Heights Down Under. Plant Cell, 1999, 11, 1817-1826.	3.1	14
87	The RNA world is alive and well. Trends in Plant Science, 2008, 13, 311-313.	4.3	14
88	Reproductive Long Intergenic Noncoding RNAs Exhibit Male Gamete Specificity and Polycomb Repressive Complex 2-Mediated Repression. Plant Physiology, 2018, 177, 1198-1217.	2.3	14
89	The gymnosperm ortholog of the angiosperm central cellâ€specification gene <i>CKI1</i> provides an essential clue to endosperm origin. New Phytologist, 2018, 218, 1685-1696.	3.5	13
90	Resetting of the 24-nt siRNA landscape in rice zygotes. Genome Research, 2022, 32, 309-323.	2.4	13

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91	Transposon Insertional Mutants: A Resource for Rice Functional Genomics. , 2007, , 223-271.		12
92	Acquisition of a complex root microbiome reshapes the transcriptomes of rice plants. New Phytologist, 2022, 235, 2008-2021.	3.5	8
93	Spore formation in plants: SPOROCYTELESS and more. Cell Research, 2015, 25, 7-8.	5.7	7
94	Control of the transition to flowering. Current Opinion in Biotechnology, 1996, 7, 145-149.	3.3	6
95	Mutant Resources for Functional Analysis of the Rice Genome. , 2013, , 81-115.		6
96	Isolation of Rice Sperm Cells for Transcriptional Profiling. Methods in Molecular Biology, 2017, 1669, 211-219.	0.4	3
97	DEFECTIVE EMBRYO AND MERISTEMS genes are required for cell division and gamete viability in Arabidopsis. PLoS Genetics, 2021, 17, e1009561.	1.5	3
98	MicroRNAs: Tiny genetic switches in our genome. Resonance, 2017, 22, 163-176.	0.2	0