

Herv Vaucheret

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117
papers

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123
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123
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19,185
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L-index

#	Paper	IF	Citations
117	A diverse and evolutionarily fluid set of microRNAs in <i>Arabidopsis thaliana</i> . <i>Genes and Development</i> , 2006 , 20, 3407-25	12.6	1058
116	Criteria for annotation of plant MicroRNAs. <i>Plant Cell</i> , 2008 , 20, 3186-90	11.6	992
115	<i>Arabidopsis</i> SGS2 and SGS3 genes are required for posttranscriptional gene silencing and natural virus resistance. <i>Cell</i> , 2000 , 101, 533-42	56.2	869
114	The action of ARGONAUTE1 in the miRNA pathway and its regulation by the miRNA pathway are crucial for plant development. <i>Genes and Development</i> , 2004 , 18, 1187-97	12.6	719
113	Endogenous trans-acting siRNAs regulate the accumulation of <i>Arabidopsis</i> mRNAs. <i>Molecular Cell</i> , 2004 , 16, 69-79	17.6	671
112	Functions of microRNAs and related small RNAs in plants. <i>Nature Genetics</i> , 2006 , 38 Suppl, S31-6	36.3	644
111	Post-transcriptional small RNA pathways in plants: mechanisms and regulations. <i>Genes and Development</i> , 2006 , 20, 759-71	12.6	581
110	Nuclear processing and export of microRNAs in <i>Arabidopsis</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3691-6	11.5	528
109	Fertile hypomorphic ARGONAUTE (<i>ago1</i>) mutants impaired in post-transcriptional gene silencing and virus resistance. <i>Plant Cell</i> , 2002 , 14, 629-39	11.6	499
108	Plant ARGONAUTES. <i>Trends in Plant Science</i> , 2008 , 13, 350-8	13.1	483
107	Partially redundant functions of <i>Arabidopsis</i> DICER-like enzymes and a role for DCL4 in producing trans-acting siRNAs. <i>Current Biology</i> , 2005 , 15, 1494-500	6.3	480
106	The nuclear dsRNA binding protein HYL1 is required for microRNA accumulation and plant development, but not posttranscriptional transgene silencing. <i>Current Biology</i> , 2004 , 14, 346-51	6.3	441
105	miR390, <i>Arabidopsis</i> TAS3 tasiRNAs, and their AUXIN RESPONSE FACTOR targets define an autoregulatory network quantitatively regulating lateral root growth. <i>Plant Cell</i> , 2010 , 22, 1104-17	11.6	406
104	An antagonistic function for <i>Arabidopsis</i> DCL2 in development and a new function for DCL4 in generating viral siRNAs. <i>EMBO Journal</i> , 2006 , 25, 3347-56	13	365
103	Transgene-induced gene silencing in plants. <i>Plant Journal</i> , 1998 , 16, 651-9	6.9	358
102	DRB4-dependent TAS3 trans-acting siRNAs control leaf morphology through AGO7. <i>Current Biology</i> , 2006 , 16, 927-32	6.3	352
101	Transcriptional gene silencing in plants: targets, inducers and regulators. <i>Trends in Genetics</i> , 2001 , 17, 29-35	8.5	299

100	Novel long non-protein coding RNAs involved in Arabidopsis differentiation and stress responses. <i>Genome Research</i> , 2009 , 19, 57-69	9.7	287
99	Form, function, and regulation of ARGONAUTE proteins. <i>Plant Cell</i> , 2010 , 22, 3879-89	11.6	284
98	The 21-nucleotide, but not 22-nucleotide, viral secondary small interfering RNAs direct potent antiviral defense by two cooperative argonautes in Arabidopsis thaliana. <i>Plant Cell</i> , 2011 , 23, 1625-38	11.6	279
97	Auxin and light control of adventitious rooting in Arabidopsis require ARGONAUTE1. <i>Plant Cell</i> , 2005 , 17, 1343-59	11.6	278
96	AGO1 homeostasis entails coexpression of MIR168 and AGO1 and preferential stabilization of miR168 by AGO1. <i>Molecular Cell</i> , 2006 , 22, 129-36	17.6	272
95	HC-Pro suppression of transgene silencing eliminates the small RNAs but not transgene methylation or the mobile signal. <i>Plant Cell</i> , 2001 , 13, 571-83	11.6	257
94	Arabidopsis HEN1: a genetic link between endogenous miRNA controlling development and siRNA controlling transgene silencing and virus resistance. <i>Current Biology</i> , 2003 , 13, 843-8	6.3	253
93	Expression of single copies of a strongly expressed 35S transgene can be silenced post-transcriptionally. <i>Plant Journal</i> , 1996 , 9, 787-797	6.9	253
92	Arabidopsis histone deacetylase HDA6 is required for maintenance of transcriptional gene silencing and determines nuclear organization of rDNA repeats. <i>Plant Cell</i> , 2004 , 16, 1021-34	11.6	225
91	Arabidopsis FIERY1, XRN2, and XRN3 are endogenous RNA silencing suppressors. <i>Plant Cell</i> , 2007 , 19, 3451-61	11.6	221
90	A branched pathway for transgene-induced RNA silencing in plants. <i>Current Biology</i> , 2002 , 12, 684-8	6.3	213
89	Arabidopsis mutants impaired in cosuppression. <i>Plant Cell</i> , 1998 , 10, 1747-58	11.6	208
88	Regulation of nitrate and nitrite reductase expression in Nicotiana plumbaginifolia leaves by nitrogen and carbon metabolites. <i>Plant Journal</i> , 1993 , 3, 315-24	6.9	199
87	RNA silencing and the mobile silencing signal. <i>Plant Cell</i> , 2002 , 14 Suppl, S289-301	11.6	197
86	DNA methylation and chromatin structure affect transcriptional and post-transcriptional transgene silencing in Arabidopsis. <i>Current Biology</i> , 2000 , 10, 1591-4	6.3	194
85	Infection of tobacco or Arabidopsis plants by CMV counteracts systemic post-transcriptional silencing of nonviral (trans)genes. <i>Virology</i> , 1998 , 252, 313-7	3.6	158
84	The Arabidopsis HOMOLOGUE-DEPENDENT GENE SILENCING1 gene codes for an S-adenosyl-L-homocysteine hydrolase required for DNA methylation-dependent gene silencing. <i>Plant Cell</i> , 2005 , 17, 404-17	11.6	132
83	Geminivirus VIGS of endogenous genes requires SGS2/SDE1 and SGS3 and defines a new branch in the genetic pathway for silencing in plants. <i>Plant Journal</i> , 2004 , 38, 1004-14	6.9	122

82	MicroRNAs: something important between the genes. <i>Current Opinion in Plant Biology</i> , 2004 , 7, 120-5	9.9	117
81	Gene silencing in plants: a diversity of pathways. <i>Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms</i> , 2013 , 1829, 1300-8	6	116
80	Requirement of sense transcription for homology-dependent virus resistance and trans-inactivation. <i>Plant Journal</i> , 1997 , 12, 597-603	6.9	111
79	Cloning of DNA fragments complementary to tobacco nitrate reductase mRNA and encoding epitopes common to the nitrate reductases from higher plants. <i>Molecular Genetics and Genomics</i> , 1987 , 209, 552-62		106
78	Transgenes are dispensable for the RNA degradation step of cosuppression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998 , 95, 9675-80	11.5	103
77	Respective contributions of Arabidopsis DCL2 and DCL4 to RNA silencing. <i>Plant Journal</i> , 2015 , 81, 223-32	9	99
76	Redundant and specific roles of the ARGONAUTE proteins AGO1 and ZLL in development and small RNA-directed gene silencing. <i>PLoS Genetics</i> , 2009 , 5, e1000646	6	95
75	Cytoplasmic Arabidopsis AGO7 accumulates in membrane-associated siRNA bodies and is required for ta-siRNA biogenesis. <i>EMBO Journal</i> , 2012 , 31, 1704-13	13	90
74	Unexpected silencing effects from T-DNA tags in Arabidopsis. <i>Trends in Plant Science</i> , 2008 , 13, 4-6	13.1	88
73	Molecular cloning and characterisation of the two homologous genes coding for nitrate reductase in tobacco. <i>Molecular Genetics and Genomics</i> , 1989 , 216, 10-5		84
72	Warm temperatures induce transgenerational epigenetic release of RNA silencing by inhibiting siRNA biogenesis in Arabidopsis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 9171-6	11.5	82
71	AGO1 homeostasis involves differential production of 21-nt and 22-nt miR168 species by MIR168a and MIR168b. <i>PLoS ONE</i> , 2009 , 4, e6442	3.7	82
70	Cytoplasmic and nuclear quality control and turnover of single-stranded RNA modulate post-transcriptional gene silencing in plants. <i>Nucleic Acids Research</i> , 2013 , 41, 4699-708	20.1	81
69	ARGONAUTE 1 homeostasis invokes the coordinate action of the microRNA and siRNA pathways. <i>EMBO Reports</i> , 2009 , 10, 521-6	6.5	81
68	Inhibition of tobacco nitrite reductase activity by expression of antisense RNA. <i>Plant Journal</i> , 1992 , 2, 559-569	6.9	81
67	Co-suppression of nitrate reductase host genes and transgenes in transgenic tobacco plants. <i>Molecular Genetics and Genomics</i> , 1994 , 243, 613-21		79
66	In plants, decapping prevents RDR6-dependent production of small interfering RNAs from endogenous mRNAs. <i>Nucleic Acids Research</i> , 2015 , 43, 2902-13	20.1	78
65	MicroRNA maturation and action—the expanding roles of ARGONAUTES. <i>Current Opinion in Plant Biology</i> , 2008 , 11, 560-6	9.9	78

64	Arabidopsis RPA2: a genetic link among transcriptional gene silencing, DNA repair, and DNA replication. <i>Current Biology</i> , 2005 , 15, 1919-25	6.3	77
63	Lessons on RNA silencing mechanisms in plants from eukaryotic argonaute structures. <i>Plant Cell</i> , 2013 , 25, 22-37	11.6	76
62	The conserved RNA trafficking proteins HPR1 and TEX1 are involved in the production of endogenous and exogenous small interfering RNA in Arabidopsis. <i>Plant Cell</i> , 2010 , 22, 2697-709	11.6	76
61	The RNA helicases AtMTR4 and HEN2 target specific subsets of nuclear transcripts for degradation by the nuclear exosome in Arabidopsis thaliana. <i>PLoS Genetics</i> , 2014 , 10, e1004564	6	74
60	Systemic silencing signal(s). <i>Plant Molecular Biology</i> , 2000 , 43, 285-93	4.6	70
59	The origin and effect of small RNA signaling in plants. <i>Frontiers in Plant Science</i> , 2012 , 3, 179	6.2	63
58	Biotechnological uses of RNAi in plants: risk assessment considerations. <i>Trends in Biotechnology</i> , 2015 , 33, 145-7	15.1	59
57	Cloning and expression of distinct nitrite reductases in tobacco leaves and roots. <i>Molecular Genetics and Genomics</i> , 1993 , 236, 203-8		58
56	MicroRNA-dependent trans-acting siRNA production. <i>Science Signaling</i> , 2005 , 2005, pe43	8.8	55
55	AGO1 and AGO2 act redundantly in miR408-mediated Plantacyanin regulation. <i>PLoS ONE</i> , 2011 , 6, e287297	3.7	51
54	siRNAs compete with miRNAs for methylation by HEN1 in Arabidopsis. <i>Nucleic Acids Research</i> , 2010 , 38, 5844-50	20.1	50
53	Interest in and limits to the utilization of reporter genes for the analysis of transcriptional regulation of nitrate reductase. <i>Molecular Genetics and Genomics</i> , 1992 , 235, 259-68		49
52	Molecular and genetic analysis of nitrite reductase co-suppression in transgenic tobacco plants. <i>Molecular Genetics and Genomics</i> , 1995 , 248, 311-7		48
51	A novel fry1 allele reveals the existence of a mutant phenotype unrelated to 5R>3Rexoribonuclease (XRN) activities in Arabidopsis thaliana roots. <i>PLoS ONE</i> , 2011 , 6, e16724	3.7	48
50	Ingested plant miRNAs regulate gene expression in animals. <i>Cell Research</i> , 2012 , 22, 3-5	24.7	44
49	A single transgene locus triggers both transcriptional and post-transcriptional silencing through double-stranded RNA production. <i>Planta</i> , 2007 , 225, 365-79	4.7	43
48	Sequence homology requirements for transcriptional silencing of 35S transgenes and post-transcriptional silencing of nitrite reductase (trans)genes by the tobacco 271 locus. <i>Plant Molecular Biology</i> , 1996 , 32, 1075-83	4.6	43
47	Functional complementation of tobacco and Nicotiana plumbaginifolia nitrate reductase deficient mutants by transformation with the wild-type alleles of the tobacco structural genes. <i>Molecular Genetics and Genomics</i> , 1990 , 220, 468-474		43

46	A Genetic Screen for Impaired Systemic RNAi Highlights the Crucial Role of DICER-LIKE 2. <i>Plant Physiology</i> , 2017 , 175, 1424-1437	6.6	41
45	Gene activation and gene silencing. <i>Plant Physiology</i> , 2001 , 125, 145-8	6.6	40
44	A neomorphic sgs3 allele stabilizing miRNA cleavage products reveals that SGS3 acts as a homodimer. <i>FEBS Journal</i> , 2009 , 276, 835-44	5.7	39
43	Double-stranded RNA binding proteins DRB2 and DRB4 have an antagonistic impact on polymerase IV-dependent siRNA levels in Arabidopsis. <i>Rna</i> , 2011 , 17, 1502-10	5.8	39
42	The viral F-box protein P0 induces an ER-derived autophagy degradation pathway for the clearance of membrane-bound AGO1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 22872-22883	11.5	37
41	Mutations in the Arabidopsis H3K4me2/3 demethylase JMJ14 suppress posttranscriptional gene silencing by decreasing transgene transcription. <i>Plant Cell</i> , 2012 , 24, 3603-12	11.6	37
40	SINE RNA induces severe developmental defects in Arabidopsis thaliana and interacts with HYL1 (DRB1), a key member of the DCL1 complex. <i>PLoS Genetics</i> , 2008 , 4, e1000096	6	37
39	Post-transcriptional gene silencing triggered by sense transgenes involves uncapped antisense RNA and differs from silencing intentionally triggered by antisense transgenes. <i>Nucleic Acids Research</i> , 2015 , 43, 8464-75	20.1	32
38	DCL2- and RDR6-dependent transitive silencing of SMXL4 and SMXL5 in Arabidopsis dcl4 mutants causes defective phloem transport and carbohydrate over-accumulation. <i>Plant Journal</i> , 2017 , 90, 1064-1078	6.9	29
37	The miRNA pathway limits AGO1 availability during siRNA-mediated PTGS defense against exogenous RNA. <i>Nucleic Acids Research</i> , 2011 , 39, 9339-44	20.1	29
36	Plant viral suppressors of post-transcriptional silencing do not suppress transcriptional silencing. <i>Plant Journal</i> , 2000 , 22, 51-9	6.9	29
35	A Suppressor Screen for AGO1 Degradation by the Viral F-Box P0 Protein Uncovers a Role for AGO DUF1785 in siRNA Duplex Unwinding. <i>Plant Cell</i> , 2018 , 30, 1353-1374	11.6	28
34	Second-Site Mutagenesis of a Hypomorphic argonaute1 Allele Identifies SUPERKILLER3 as an Endogenous Suppressor of Transgene Posttranscriptional Gene Silencing. <i>Plant Physiology</i> , 2015 , 169, 1266-74	6.6	27
33	RDR2 partially antagonizes the production of RDR6-dependent siRNA in sense transgene-mediated PTGS. <i>PLoS ONE</i> , 2012 , 7, e29785	3.7	26
32	RST1 and RIPR connect the cytosolic RNA exosome to the Ski complex in Arabidopsis. <i>Nature Communications</i> , 2019 , 10, 3871	17.4	25
31	Plants Encode a General siRNA Suppressor That Is Induced and Suppressed by Viruses. <i>PLoS Biology</i> , 2015 , 13, e1002326	9.7	24
30	Arabidopsis RNASE THREE LIKE2 Modulates the Expression of Protein-Coding Genes via 24-Nucleotide Small Interfering RNA-Directed DNA Methylation. <i>Plant Cell</i> , 2016 , 28, 406-25	11.6	23
29	Nitrate Reductase mRNA Regulation in Nicotiana plumbaginifolia Nitrate Reductase-Deficient Mutants. <i>Plant Cell</i> , 1989 , 1, 1111	11.6	23

28	The Zinc-Finger Protein SOP1 Is Required for a Subset of the Nuclear Exosome Functions in Arabidopsis. <i>PLoS Genetics</i> , 2016 , 12, e1005817	6	22
27	The Nuclear Ribonucleoprotein Smd1 Interplays with Splicing, RNA Quality Control, and Posttranscriptional Gene Silencing in Arabidopsis. <i>Plant Cell</i> , 2016 , 28, 426-38	11.6	22
26	Requirement of sense transcription for homology-dependent virus resistance and trans-inactivation. <i>Plant Journal</i> , 1997 , 12, 597-603	6.9	20
25	Over-expression of acetolactate synthase confers resistance to valine in transgenic tobacco. <i>Plant Science</i> , 1993 , 88, 159-168	5.3	19
24	RNA silencing is resistant to low-temperature in grapevine. <i>PLoS ONE</i> , 2013 , 8, e82652	3.7	17
23	A Transcriptionally Active State Is Required for Post-Transcriptional Silencing (Cosuppression) of Nitrate Reductase Host Genes and Transgenes. <i>Plant Cell</i> , 1997 , 9, 1495	11.6	15
22	Post-transcriptional gene silencing mutants. <i>Plant Molecular Biology</i> , 2000 , 43, 275-84	4.6	15
21	Induction of nitrate reductase host gene expression has a negative effect on the expression of transgenes driven by the nitrate reductase promoter. <i>Plant Science</i> , 1995 , 107, 95-104	5.3	12
20	The siRNA suppressor RTL1 is redox-regulated through glutathionylation of a conserved cysteine in the double-stranded-RNA-binding domain. <i>Nucleic Acids Research</i> , 2017 , 45, 11891-11907	20.1	10
19	Dose-Dependent AGO1-Mediated Inhibition of the miRNA165/166 Pathway Modulates Stem Cell Maintenance in Shoot Apical Meristem. <i>Plant Communications</i> , 2020 , 1, 100002	9	8
18	Expression and sequence requirements for nitrite reductase co-suppression. <i>Plant Molecular Biology</i> , 1999 , 41, 105-14	4.6	7
17	The root-knot nematode effector MiEFF18 interacts with the plant core spliceosomal protein Smd1 required for giant cell formation. <i>New Phytologist</i> , 2021 , 229, 3408-3423	9.8	7
16	sgs1: a neomorphic nac52 allele impairing post-transcriptional gene silencing through SGS3 downregulation. <i>Plant Journal</i> , 2017 , 90, 505-519	6.9	6
15	Post-transcriptional gene silencing triggers dispensable DNA methylation in gene body in Arabidopsis. <i>Nucleic Acids Research</i> , 2019 , 47, 9104-9114	20.1	6
14	Nitrate reductase and nitrite reductase as targets to study gene silencing phenomena in transgenic plants. <i>Euphytica</i> , 1997 , 93, 195-200	2.1	4
13	Nitrite reductase silencing as a tool for selecting spontaneous haploid plants. <i>Plant Cell Reports</i> , 1995 , 15, 12-6	5.1	4
12	Can-Seq: a PCR and DNA sequencing strategy for identifying new alleles of known and candidate genes. <i>Plant Methods</i> , 2020 , 16, 16	5.8	3
11	Small RNA-Mediated Control of Development in Plants. <i>Signaling and Communication in Plants</i> , 2013 , 177-199	1	3

10	Are gene silencing mutants good tools for reliable transgene expression or reliable silencing of endogenous genes in plants?. <i>Genetic Engineering</i> , 2000 , 22, 155-70		3
9	Gene silencing: Mode of miRNA biogenesis matters. <i>Nature Plants</i> , 2015 , 1, 15019	11.5	2
8	HC-Pro Suppression of Transgene Silencing Eliminates the Small RNAs but Not Transgene Methylation or the Mobile Signal. <i>Plant Cell</i> , 2001 , 13, 571	11.6	2
7	Inhibition of tobacco nitrite reductase activity by expression of antisense RNA. <i>Plant Journal</i> , 1992 , 2, 559-569	6.9	2
6	Systemic silencing signal(s) 2000 , 165-173		2
5	Deciphering post-transcriptional Gene Silencing Pathways Through Genetic Screens 2011 , 17-46		1
4	Arabidopsis Mutants Impaired in Cosuppression. <i>Plant Cell</i> , 1998 , 10, 1747	11.6	1
3	RST1 and RIPR connect the cytosolic RNA exosome to the Ski complex in Arabidopsis		1
2	The Arabidopsis F-box protein FBW2 targets AGO1 for degradation to prevent spurious loading of illegitimate small RNA.. <i>Cell Reports</i> , 2022 , 39, 110671	10.6	1
1	Contrasting epigenetic control of transgenes and endogenous genes promotes post-transcriptional transgene silencing in Arabidopsis. <i>Nature Communications</i> , 2021 , 12, 2787	17.4	0