Herv Vaucheret

List of Publications by Year in Descending Order

117 papers	17,265 citations	59 h-index	123 g-index
123 ext. papers	19,185 ext. citations	10.2 avg, IF	6.66 L-index

#	Paper	IF	Citations
117	The Arabidopsis F-box protein FBW2 targets AGO1 for degradation to prevent spurious loading of illegitimate small RNA.. *Cell Reports*, **2022**, 39, 110671	10.6	1
116	Contrasting epigenetic control of transgenes and endogenous genes promotes post-transcriptional transgene silencing in Arabidopsis. *Nature Communications*, **2021**, 12, 2787	17.4	0
115	The root-knot nematode effector MiEFF18 interacts with the plant core spliceosomal protein SmD1 required for giant cell formation. *New Phytologist*, **2021**, 229, 3408-3423	9.8	7
114	Can-Seq: a PCR and DNA sequencing strategy for identifying new alleles of known and candidate genes. *Plant Methods*, **2020**, 16, 16	5.8	3
113	Dose-Dependent AGO1-Mediated Inhibition of the miRNA165/166 Pathway Modulates Stem Cell Maintenance in Shoot Apical Meristem. *Plant Communications*, **2020**, 1, 100002	9	8
112	RST1 and RIPR connect the cytosolic RNA exosome to the Ski complex in Arabidopsis. *Nature Communications*, **2019**, 10, 3871	17.4	25
111	Post-transcriptional gene silencing triggers dispensable DNA methylation in gene body in Arabidopsis. *Nucleic Acids Research*, **2019**, 47, 9104-9114	20.1	6
110	The viral F-box protein P0 induces an ER-derived autophagy degradation pathway for the clearance of membrane-bound AGO1. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 22872-22883	11.5	37
109	A Suppressor Screen for AGO1 Degradation by the Viral F-Box P0 Protein Uncovers a Role for AGO DUF1785 in sRNA Duplex Unwinding. *Plant Cell*, **2018**, 30, 1353-1374	11.6	28
108	sgs1: a neomorphic nac52 allele impairing post-transcriptional gene silencing through SGS3 downregulation. *Plant Journal*, **2017**, 90, 505-519	6.9	6
107	DCL2- and RDR6-dependent transitive silencing of SMXL4 and SMXL5 in Arabidopsis dcl4 mutants causes defective phloem transport and carbohydrate over-accumulation. *Plant Journal*, **2017**, 90, 1064-1078	6.9	29
106	The siRNA suppressor RTL1 is redox-regulated through glutathionylation of a conserved cysteine in the double-stranded-RNA-binding domain. *Nucleic Acids Research*, **2017**, 45, 11891-11907	20.1	10
105	A Genetic Screen for Impaired Systemic RNAi Highlights the Crucial Role of DICER-LIKE 2. *Plant Physiology*, **2017**, 175, 1424-1437	6.6	41
104	Arabidopsis RNASE THREE LIKE2 Modulates the Expression of Protein-Coding Genes via 24-Nucleotide Small Interfering RNA-Directed DNA Methylation. *Plant Cell*, **2016**, 28, 406-25	11.6	23
103	The Zinc-Finger Protein SOP1 Is Required for a Subset of the Nuclear Exosome Functions in Arabidopsis. *PLoS Genetics*, **2016**, 12, e1005817	6	22
102	The Nuclear Ribonucleoprotein SmD1 Interplays with Splicing, RNA Quality Control, and Posttranscriptional Gene Silencing in Arabidopsis. *Plant Cell*, **2016**, 28, 426-38	11.6	22
101	In plants, decapping prevents RDR6-dependent production of small interfering RNAs from endogenous mRNAs. *Nucleic Acids Research*, **2015**, 43, 2902-13	20.1	78

100	Biotechnological uses of RNAi in plants: risk assessment considerations. *Trends in Biotechnology*, **2015**, 33, 145-7	15.1	59
99	Post-transcriptional gene silencing triggered by sense transgenes involves uncapped antisense RNA and differs from silencing intentionally triggered by antisense transgenes. *Nucleic Acids Research*, **2015**, 43, 8464-75	20.1	32
98	Respective contributions of Arabidopsis DCL2 and DCL4 to RNA silencing. *Plant Journal*, **2015**, 81, 223-32	6.9	99
97	Gene silencing: Mode of miRNA biogenesis matters. *Nature Plants*, **2015**, 1, 15019	11.5	2
96	Plants Encode a General siRNA Suppressor That Is Induced and Suppressed by Viruses. *PLoS Biology*, **2015**, 13, e1002326	9.7	24
95	Second-Site Mutagenesis of a Hypomorphic argonaute1 Allele Identifies SUPERKILLER3 as an Endogenous Suppressor of Transgene Posttranscriptional Gene Silencing. *Plant Physiology*, **2015**, 169, 1266-74	6.6	27
94	The RNA helicases AtMTR4 and HEN2 target specific subsets of nuclear transcripts for degradation by the nuclear exosome in Arabidopsis thaliana. *PLoS Genetics*, **2014**, 10, e1004564	6	74
93	Gene silencing in plants: a diversity of pathways. *Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms*, **2013**, 1829, 1300-8	6	116
92	Lessons on RNA silencing mechanisms in plants from eukaryotic argonaute structures. *Plant Cell*, **2013**, 25, 22-37	11.6	76
91	Small RNA-Mediated Control of Development in Plants. *Signaling and Communication in Plants*, **2013**, 177-199	1	3
90	Cytoplasmic and nuclear quality control and turnover of single-stranded RNA modulate post-transcriptional gene silencing in plants. *Nucleic Acids Research*, **2013**, 41, 4699-708	20.1	81
89	Warm temperatures induce transgenerational epigenetic release of RNA silencing by inhibiting siRNA biogenesis in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 9171-6	11.5	82
88	RNA silencing is resistant to low-temperature in grapevine. *PLoS ONE*, **2013**, 8, e82652	3.7	17
87	Ingested plant miRNAs regulate gene expression in animals. *Cell Research*, **2012**, 22, 3-5	24.7	44
86	Cytoplasmic Arabidopsis AGO7 accumulates in membrane-associated siRNA bodies and is required for ta-siRNA biogenesis. *EMBO Journal*, **2012**, 31, 1704-13	13	90
85	The origin and effect of small RNA signaling in plants. *Frontiers in Plant Science*, **2012**, 3, 179	6.2	63
84	Mutations in the Arabidopsis H3K4me2/3 demethylase JMJ14 suppress posttranscriptional gene silencing by decreasing transgene transcription. *Plant Cell*, **2012**, 24, 3603-12	11.6	37
83	RDR2 partially antagonizes the production of RDR6-dependent siRNA in sense transgene-mediated PTGS. *PLoS ONE*, **2012**, 7, e29785	3.7	26

82	Deciphering post-transcriptional Gene Silencing Pathways Through Genetic Screens **2011**, 17-46		1
81	The 21-nucleotide, but not 22-nucleotide, viral secondary small interfering RNAs direct potent antiviral defense by two cooperative argonautes in Arabidopsis thaliana. *Plant Cell*, **2011**, 23, 1625-38	11.6	279
80	The miRNA pathway limits AGO1 availability during siRNA-mediated PTGS defense against exogenous RNA. *Nucleic Acids Research*, **2011**, 39, 9339-44	20.1	29
79	Double-stranded RNA binding proteins DRB2 and DRB4 have an antagonistic impact on polymerase IV-dependent siRNA levels in Arabidopsis. *Rna*, **2011**, 17, 1502-10	5.8	39
78	A novel fry1 allele reveals the existence of a mutant phenotype unrelated to 5R>3Rexoribonuclease (XRN) activities in Arabidopsis thaliana roots. *PLoS ONE*, **2011**, 6, e16724	3.7	48
77	AGO1 and AGO2 act redundantly in miR408-mediated Plantacyanin regulation. *PLoS ONE*, **2011**, 6, e28729	3.7	51
76	siRNAs compete with miRNAs for methylation by HEN1 in Arabidopsis. *Nucleic Acids Research*, **2010**, 38, 5844-50	20.1	50
75	miR390, Arabidopsis TAS3 tasiRNAs, and their AUXIN RESPONSE FACTOR targets define an autoregulatory network quantitatively regulating lateral root growth. *Plant Cell*, **2010**, 22, 1104-17	11.6	406
74	The conserved RNA trafficking proteins HPR1 and TEX1 are involved in the production of endogenous and exogenous small interfering RNA in Arabidopsis. *Plant Cell*, **2010**, 22, 2697-709	11.6	76
73	Form, function, and regulation of ARGONAUTE proteins. *Plant Cell*, **2010**, 22, 3879-89	11.6	284
72	AGO1 homeostasis involves differential production of 21-nt and 22-nt miR168 species by MIR168a and MIR168b. *PLoS ONE*, **2009**, 4, e6442	3.7	82
71	Redundant and specific roles of the ARGONAUTE proteins AGO1 and ZLL in development and small RNA-directed gene silencing. *PLoS Genetics*, **2009**, 5, e1000646	6	95
70	ARGONAUTE 1 homeostasis invokes the coordinate action of the microRNA and siRNA pathways. *EMBO Reports*, **2009**, 10, 521-6	6.5	81
69	A neomorphic sgs3 allele stabilizing miRNA cleavage products reveals that SGS3 acts as a homodimer. *FEBS Journal*, **2009**, 276, 835-44	5.7	39
68	Novel long non-protein coding RNAs involved in Arabidopsis differentiation and stress responses. *Genome Research*, **2009**, 19, 57-69	9.7	287
67	MicroRNA maturation and action--the expanding roles of ARGONAUTEs. *Current Opinion in Plant Biology*, **2008**, 11, 560-6	9.9	78
66	Unexpected silencing effects from T-DNA tags in Arabidopsis. *Trends in Plant Science*, **2008**, 13, 4-6	13.1	88
65	Plant ARGONAUTES. *Trends in Plant Science*, **2008**, 13, 350-8	13.1	483

64	Criteria for annotation of plant MicroRNAs. *Plant Cell*, **2008**, 20, 3186-90	11.6	992
63	SINE RNA induces severe developmental defects in Arabidopsis thaliana and interacts with HYL1 (DRB1), a key member of the DCL1 complex. *PLoS Genetics*, **2008**, 4, e1000096	6	37
62	Arabidopsis FIERY1, XRN2, and XRN3 are endogenous RNA silencing suppressors. *Plant Cell*, **2007**, 19, 3451-61	11.6	221
61	A single transgene locus triggers both transcriptional and post-transcriptional silencing through double-stranded RNA production. *Planta*, **2007**, 225, 365-79	4.7	43
60	DRB4-dependent TAS3 trans-acting siRNAs control leaf morphology through AGO7. *Current Biology* , **2006**, 16, 927-32	6.3	352
59	A diverse and evolutionarily fluid set of microRNAs in Arabidopsis thaliana. *Genes and Development*, **2006**, 20, 3407-25	12.6	1058
58	Post-transcriptional small RNA pathways in plants: mechanisms and regulations. *Genes and Development*, **2006**, 20, 759-71	12.6	581
57	AGO1 homeostasis entails coexpression of MIR168 and AGO1 and preferential stabilization of miR168 by AGO1. *Molecular Cell*, **2006**, 22, 129-36	17.6	272
56	Functions of microRNAs and related small RNAs in plants. *Nature Genetics*, **2006**, 38 Suppl, S31-6	36.3	644
55	An antagonistic function for Arabidopsis DCL2 in development and a new function for DCL4 in generating viral siRNAs. *EMBO Journal*, **2006**, 25, 3347-56	13	365
54	Partially redundant functions of Arabidopsis DICER-like enzymes and a role for DCL4 in producing trans-acting siRNAs. *Current Biology*, **2005**, 15, 1494-500	6.3	480
53	Arabidopsis RPA2: a genetic link among transcriptional gene silencing, DNA repair, and DNA replication. *Current Biology*, **2005**, 15, 1919-25	6.3	77
52	Nuclear processing and export of microRNAs in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 3691-6	11.5	528
51	The Arabidopsis HOMOLOGY-DEPENDENT GENE SILENCING1 gene codes for an S-adenosyl-L-homocysteine hydrolase required for DNA methylation-dependent gene silencing. *Plant Cell*, **2005**, 17, 404-17	11.6	132
50	MicroRNA-dependent trans-acting siRNA production. *Science Signaling*, **2005**, 2005, pe43	8.8	55
49	Auxin and light control of adventitious rooting in Arabidopsis require ARGONAUTE1. *Plant Cell*, **2005**, 17, 1343-59	11.6	278
48	Arabidopsis histone deacetylase HDA6 is required for maintenance of transcriptional gene silencing and determines nuclear organization of rDNA repeats. *Plant Cell*, **2004**, 16, 1021-34	11.6	225
47	Geminivirus VIGS of endogenous genes requires SGS2/SDE1 and SGS3 and defines a new branch in the genetic pathway for silencing in plants. *Plant Journal*, **2004**, 38, 1004-14	6.9	122

46	MicroRNAs: something important between the genes. *Current Opinion in Plant Biology*, **2004**, 7, 120-5	9.9	117
45	The nuclear dsRNA binding protein HYL1 is required for microRNA accumulation and plant development, but not posttranscriptional transgene silencing. *Current Biology*, **2004**, 14, 346-51	6.3	441
44	The action of ARGONAUTE1 in the miRNA pathway and its regulation by the miRNA pathway are crucial for plant development. *Genes and Development*, **2004**, 18, 1187-97	12.6	719
43	Endogenous trans-acting siRNAs regulate the accumulation of Arabidopsis mRNAs. *Molecular Cell*, **2004**, 16, 69-79	17.6	671
42	Arabidopsis HEN1: a genetic link between endogenous miRNA controlling development and siRNA controlling transgene silencing and virus resistance. *Current Biology*, **2003**, 13, 843-8	6.3	253
41	A branched pathway for transgene-induced RNA silencing in plants. *Current Biology*, **2002**, 12, 684-8	6.3	213
40	Fertile hypomorphic ARGONAUTE (ago1) mutants impaired in post-transcriptional gene silencing and virus resistance. *Plant Cell*, **2002**, 14, 629-39	11.6	499
39	RNA silencing and the mobile silencing signal. *Plant Cell*, **2002**, 14 Suppl, S289-301	11.6	197
38	Transcriptional gene silencing in plants: targets, inducers and regulators. *Trends in Genetics*, **2001**, 17, 29-35	8.5	299
37	HC-Pro Suppression of Transgene Silencing Eliminates the Small RNAs but Not Transgene Methylation or the Mobile Signal. *Plant Cell*, **2001**, 13, 571	11.6	2
36	HC-Pro suppression of transgene silencing eliminates the small RNAs but not transgene methylation or the mobile signal. *Plant Cell*, **2001**, 13, 571-83	11.6	257
35	Gene activation and gene silencing. *Plant Physiology*, **2001**, 125, 145-8	6.6	40
34	Plant viral suppressors of post-transcriptional silencing do not suppress transcriptional silencing. *Plant Journal*, **2000**, 22, 51-9	6.9	29
33	DNA methylation and chromatin structure affect transcriptional and post-transcriptional transgene silencing in Arabidopsis. *Current Biology*, **2000**, 10, 1591-4	6.3	194
32	Systemic silencing signal(s). *Plant Molecular Biology*, **2000**, 43, 285-93	4.6	70
31	Post-transcriptional gene silencing mutants. *Plant Molecular Biology*, **2000**, 43, 275-84	4.6	15
30	Arabidopsis SGS2 and SGS3 genes are required for posttranscriptional gene silencing and natural virus resistance. *Cell*, **2000**, 101, 533-42	56.2	869
29	Are gene silencing mutants good tools for reliable transgene expression or reliable silencing of endogenous genes in plants?. *Genetic Engineering*, **2000**, 22, 155-70		3

28	Systemic silencing signal(s) **2000**, 165-173		2
27	Expression and sequence requirements for nitrite reductase co-suppression. *Plant Molecular Biology*, **1999**, 41, 105-14	4.6	7
26	Infection of tobacco or Arabidopsis plants by CMV counteracts systemic post-transcriptional silencing of nonviral (trans)genes. *Virology*, **1998**, 252, 313-7	3.6	158
25	Transgene-induced gene silencing in plants. *Plant Journal*, **1998**, 16, 651-9	6.9	358
24	Arabidopsis mutants impaired in cosuppression. *Plant Cell*, **1998**, 10, 1747-58	11.6	208
23	Arabidopsis Mutants Impaired in Cosuppression. *Plant Cell*, **1998**, 10, 1747	11.6	1
22	Transgenes are dispensable for the RNA degradation step of cosuppression. *Proceedings of the National Academy of Sciences of the United States of America*, **1998**, 95, 9675-80	11.5	103
21	A Transcriptionally Active State Is Required for Post-Transcriptional Silencing (Cosuppression) of Nitrate Reductase Host Genes and Transgenes. *Plant Cell*, **1997**, 9, 1495	11.6	15
20	Nitrate reductase and nitrite reductase as targets to study gene silencing phenomena in transgenic plants. *Euphytica*, **1997**, 93, 195-200	2.1	4
19	Requirement of sense transcription for homology-dependent virus resistance and trans-inactivation. *Plant Journal*, **1997**, 12, 597-603	6.9	20
18	Requirement of sense transcription for homology-dependent virus resistance and trans-inactivation. *Plant Journal*, **1997**, 12, 597-603	6.9	111
17	Expression of single copies of a strongly expressed 35S transgene can be silenced post-transcriptionally. *Plant Journal*, **1996**, 9, 787-797	6.9	253
16	Sequence homology requirements for transcriptional silencing of 35S transgenes and post-transcriptional silencing of nitrite reductase (trans)genes by the tobacco 271 locus. *Plant Molecular Biology*, **1996**, 32, 1075-83	4.6	43
15	Induction of nitrate reductase host gene expression has a negative effect on the expression of transgenes driven by the nitrate reductase promoter. *Plant Science*, **1995**, 107, 95-104	5.3	12
14	Nitrite reductase silencing as a tool for selecting spontaneous haploid plants. *Plant Cell Reports*, **1995**, 15, 12-6	5.1	4
13	Molecular and genetic analysis of nitrite reductase co-suppression in transgenic tobacco plants. *Molecular Genetics and Genomics*, **1995**, 248, 311-7		48
12	Co-suppression of nitrate reductase host genes and transgenes in transgenic tobacco plants. *Molecular Genetics and Genomics*, **1994**, 243, 613-21		79
11	Over-expression of acetolactate synthase confers resistance to valine in transgenic tobacco. *Plant Science*, **1993**, 88, 159-168	5.3	19

10	Cloning and expression of distinct nitrite reductases in tobacco leaves and roots. *Molecular Genetics and Genomics*, **1993**, 236, 203-8		58
9	Regulation of nitrate and nitrite reductase expression in Nicotiana plumbaginifolia leaves by nitrogen and carbon metabolites. *Plant Journal*, **1993**, 3, 315-24	6.9	199
8	Interest in and limits to the utilization of reporter genes for the analysis of transcriptional regulation of nitrate reductase. *Molecular Genetics and Genomics*, **1992**, 235, 259-68		49
7	Inhibition of tobacco nitrite reductase activity by expression of antisense RNA. *Plant Journal*, **1992**, 2, 559-569	6.9	81
6	Inhibition of tobacco nitrite reductase activity by expression of antisense RNA. *Plant Journal*, **1992**, 2, 559-569	6.9	2
5	Functional complementation of tobacco and Nicotiana plumbaginifolia nitrate reductase deficient mutants by transformation with the wild-type alleles of the tobacco structural genes. *Molecular Genetics and Genomics*, **1990**, 220, 468-474		43
4	Nitrate Reductase mRNA Regulation in Nicotiana plumbaginifolia Nitrate Reductase-Deficient Mutants. *Plant Cell*, **1989**, 1, 1111	11.6	23
3	Molecular cloning and characterisation of the two homologous genes coding for nitrate reductase in tobacco. *Molecular Genetics and Genomics*, **1989**, 216, 10-5		84
2	Cloning of DNA fragments complementary to tobacco nitrate reductase mRNA and encoding epitopes common to the nitrate reductases from higher plants. *Molecular Genetics and Genomics*, **1987**, 209, 552-62		106
1	RST1 and RIPR connect the cytosolic RNA exosome to the Ski complex in Arabidopsis		1