HervÃ© Vaucheret

List of Publications by Year
in descending order

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119 papers	20,500 citations	19657 61 h-index	22832 112 g-index
123 all docs	123 docs citations	123 times ranked	12296 citing authors

#	Article	IF	Citations
1	The Arabidopsis F-box protein FBW2 targets AGO1 for degradation to prevent spurious loading of illegitimate small RNA. Cell Reports, 2022, 39, 110671.	6.4	16
2	The rootâ€knot nematode effector MiEFF18 interacts with the plant core spliceosomal protein SmD1 required for giant cell formation. New Phytologist, 2021, 229, 3408-3423.	7.3	31
3	Contrasting epigenetic control of transgenes and endogenous genes promotes post-transcriptional transgene silencing in Arabidopsis. Nature Communications, 2021, 12, 2787.	12.8	5
4	Thiol-mediated redox regulation of DICER-LIKE RNaseIII and small RNA metabolism. Free Radical Biology and Medicine, 2021, 177, S61-S62.	2.9	0
5	Dose-Dependent AGO1-Mediated Inhibition of the miRNA165/166 Pathway Modulates Stem Cell Maintenance in Arabidopsis Shoot Apical Meristem. Plant Communications, 2020, 1, 100002.	7.7	18
6	Can-Seq: a PCR and DNA sequencing strategy for identifying new alleles of known and candidate genes. Plant Methods, 2020, 16, 16.	4.3	5
7	Post-transcriptional gene silencing triggers dispensable DNA methylation in gene body in Arabidopsis. Nucleic Acids Research, 2019, 47, 9104-9114.	14.5	15
8	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.	7.1	83
9	RST1 and RIPR connect the cytosolic RNA exosome to the Ski complex in Arabidopsis. Nature Communications, 2019, 10, 3871.	12.8	42
10	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.	6.6	44
11	<i>sgs1</i>: a neomorphic <i>nac52</i> allele impairing postâ€transcriptional gene silencing through <i>SGS3</i> downregulation. Plant Journal, 2017, 90, 505-519.	5.7	9
12	DCL2â€•and RDR6â€dependent transitive silencing of <i>SMXL4</i> and <i>SMXL5</i> in Arabidopsis <i>dcl4</i> mutants causes defective phloem transport and carbohydrate overâ€accumulation. Plant Journal, 2017, 90, 1064-1078.	5.7	43
13	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.	14.5	15
14	A Genetic Screen for Impaired Systemic RNAi Highlights the Crucial Role of DICER-LIKE 2. Plant Physiology, 2017, 175, 1424-1437.	4.8	72
15	The Nuclear Ribonucleoprotein SmD1 Interplays with Splicing, RNA Quality Control, and Posttranscriptional Gene Silencing in Arabidopsis. Plant Cell, 2016, 28, 426-438.	6.6	46
16	Arabidopsis RNASE THREE LIKE2 Modulates the Expression of Protein-Coding Genes via 24-Nucleotide Small Interfering RNA-Directed DNA Methylation. Plant Cell, 2016, 28, 406-425.	6.6	37
17	The Zinc-Finger Protein SOP1 Is Required for a Subset of the Nuclear Exosome Functions in Arabidopsis. PLoS Genetics, 2016, 12, e1005817.	3.5	36
18	Gene silencing: Mode of miRNA biogenesis matters. Nature Plants, 2015, 1, 15019.	9.3	5

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19	Plants Encode a General siRNA Suppressor That Is Induced and Suppressed by Viruses. PLoS Biology, 2015, 13, e1002326.	5.6	37
20	Second-Site Mutagenesis of a Hypomorphic <i>argonaute1</i> Allele Identifies <i>SUPERKILLER3</i> as an Endogenous Suppressor of Transgene Posttranscriptional Gene Silencing. Plant Physiology, 2015, 169, 1266-1274.	4.8	38
21	In plants, decapping prevents RDR6-dependent production of small interfering RNAs from endogenous mRNAs. Nucleic Acids Research, 2015, 43, 2902-2913.	14.5	107
22	Biotechnological uses of RNAi in plants: risk assessment considerations. Trends in Biotechnology, 2015, 33, 145-147.	9.3	82
23	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, 8464-8475.	14.5	47
24	Respective contributions of Arabidopsis <scp>DCL</scp>2 and <scp>DCL</scp>4 to <scp>RNA</scp> silencing. Plant Journal, 2015, 81, 223-232.	5.7	139
25	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.	3.5	97
26	Gene silencing in plants: A diversity of pathways. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2013, 1829, 1300-1308.	1.9	140
27	Lessons on RNA Silencing Mechanisms in Plants from Eukaryotic Argonaute Structures. Plant Cell, 2013, 25, 22-37.	6.6	120
28	Small RNA-Mediated Control of Development in Plants. Signaling and Communication in Plants, 2013, , 177-199.	0.7	4
29	Cytoplasmic and nuclear quality control and turnover of single-stranded RNA modulate post-transcriptional gene silencing in plants. Nucleic Acids Research, 2013, 41, 4699-4708.	14.5	99
30	Warm temperatures induce transgenerational epigenetic release of RNA silencing by inhibiting siRNA biogenesis in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9171-9176.	7.1	104
31	RNA Silencing Is Resistant to Low-Temperature in Grapevine. PLoS ONE, 2013, 8, e82652.	2.5	21
32	The origin and effect of small RNA signaling in plants. Frontiers in Plant Science, 2012, 3, 179.	3.6	76
33	Mutations in the <i>Arabidopsis</i> H3K4me2/3 Demethylase JMJ14 Suppress Posttranscriptional Gene Silencing by Decreasing Transgene Transcription Â. Plant Cell, 2012, 24, 3603-3612.	6.6	43
34	Ingested plant miRNAs regulate gene expression in animals. Cell Research, 2012, 22, 3-5.	12.0	58
35	Cytoplasmic Arabidopsis AGO7 accumulates in membrane-associated siRNA bodies and is required for ta-siRNA biogenesis. EMBO Journal, 2012, 31, 1704-1713.	7.8	121
36	RDR2 Partially Antagonizes the Production of RDR6-Dependent siRNA in Sense Transgene-Mediated PTGS. PLoS ONE, 2012, 7, e29785.	2.5	30

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37	Deciphering post-transcriptional Gene Silencing Pathways Through Genetic Screens. , 2011, , 17-46.		1
38	The 21-Nucleotide, but Not 22-Nucleotide, Viral Secondary Small Interfering RNAs Direct Potent Antiviral Defense by Two Cooperative Argonautes in<i>Arabidopsis thaliana</i>Â Â. Plant Cell, 2011, 23, 1625-1638.	6.6	354
39	The miRNA pathway limits AGO1 availability during siRNA-mediated PTGS defense against exogenous RNA. Nucleic Acids Research, 2011, 39, 9339-9344.	14.5	36
40	Double-stranded RNA binding proteins DRB2 and DRB4 have an antagonistic impact on polymerase IV-dependent siRNA levels in <i>Arabidopsis</i>. Rna, 2011, 17, 1502-1510.	3.5	43
41	A Novel fry1 Allele Reveals the Existence of a Mutant Phenotype Unrelated to 5â€²->3â€² Exoribonuclease (XRN) Activities in Arabidopsis thaliana Roots. PLoS ONE, 2011, 6, e16724.	2.5	64
42	AGO1 and AGO2 Act Redundantly in miR408-Mediated Plantacyanin Regulation. PLoS ONE, 2011, 6, e28729.	2.5	62
43	siRNAs compete with miRNAs for methylation by HEN1 in Arabidopsis. Nucleic Acids Research, 2010, 38, 5844-5850.	14.5	59
44	miR390,<i>Arabidopsis TAS3</i>tasiRNAs, and Their<i>AUXIN RESPONSE FACTOR</i>Targets Define an Autoregulatory Network Quantitatively Regulating Lateral Root Growth. Plant Cell, 2010, 22, 1104-1117.	6.6	512
45	The Conserved RNA Trafficking Proteins HPR1 and TEX1 Are Involved in the Production of Endogenous and Exogenous Small Interfering RNA in <i>Arabidopsis</i> Â Â. Plant Cell, 2010, 22, 2697-2709.	6.6	88
46	Form, Function, and Regulation of ARGONAUTE Proteins. Plant Cell, 2010, 22, 3879-3889.	6.6	369
47	Novel long non-protein coding RNAs involved in <i>Arabidopsis</i> differentiation and stress responses. Genome Research, 2009, 19, 57-69.	5.5	390
48	AGO1 Homeostasis Involves Differential Production of 21-nt and 22-nt miR168 Species by MIR168a and MIR168b. PLoS ONE, 2009, 4, e6442.	2.5	88
49	Redundant and Specific Roles of the ARGONAUTE Proteins AGO1 and ZLL in Development and Small RNA-Directed Gene Silencing. PLoS Genetics, 2009, 5, e1000646.	3.5	107
50	ARGONAUTE 1 homeostasis invokes the coordinate action of the microRNA and siRNA pathways. EMBO Reports, 2009, 10, 521-526.	4.5	102
51	A neomorphic <i>sgs3</i> allele stabilizing miRNA cleavage products reveals that SGS3 acts as a homodimer. FEBS Journal, 2009, 276, 835-844.	4.7	49
52	MicroRNA maturation and actionâ€"the expanding roles of ARGONAUTEs. Current Opinion in Plant Biology, 2008, 11, 560-566.	7.1	100
53	Unexpected silencing effects from T-DNA tags in Arabidopsis. Trends in Plant Science, 2008, 13, 4-6.	8.8	103
54	Plant ARGONAUTES. Trends in Plant Science, 2008, 13, 350-358.	8.8	565

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55	Criteria for Annotation of Plant MicroRNAs. Plant Cell, 2008, 20, 3186-3190.	6.6	1,158
56	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.	3.5	42
57	<i>Arabidopsis</i> FIERY1, XRN2, and XRN3 Are Endogenous RNA Silencing Suppressors. Plant Cell, 2007, 19, 3451-3461.	6.6	275
58	A single transgene locus triggers both transcriptional and post-transcriptional silencing through double-stranded RNA production. Planta, 2007, 225, 365-379.	3.2	49
59	A diverse and evolutionarily fluid set of microRNAs in Arabidopsis thaliana. Genes and Development, 2006, 20, 3407-3425.	5.9	1,208
60	Post-transcriptional small RNA pathways in plants: mechanisms and regulations. Genes and Development, 2006, 20, 759-771.	5.9	658
61	AGO1 Homeostasis Entails Coexpression of MIR168 and AGO1 and Preferential Stabilization of miR168 by AGO1. Molecular Cell, 2006, 22, 129-136.	9.7	330
62	Functions of microRNAs and related small RNAs in plants. Nature Genetics, 2006, 38, S31-S36.	21.4	738
63	An antagonistic function for Arabidopsis DCL2 in development and a new function for DCL4 in generating viral siRNAs. EMBO Journal, 2006, 25, 3347-3356.	7.8	430
64	DRB4-Dependent TAS3 trans-Acting siRNAs Control Leaf Morphology through AGO7. Current Biology, 2006, 16, 927-932.	3.9	423
65	RNA polymerase IV and transcriptional silencing. Nature Genetics, 2005, 37, 659-660.	21.4	30
66	Partially Redundant Functions of Arabidopsis DICER-like Enzymes and a Role for DCL4 in Producing trans-Acting siRNAs. Current Biology, 2005, 15, 1494-1500.	3.9	545
67	Arabidopsis RPA2: A Genetic Link among Transcriptional Gene Silencing, DNA Repair, and DNA Replication. Current Biology, 2005, 15, 1919-1925.	3.9	87
68	Nuclear processing and export of microRNAs in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3691-3696.	7.1	598
69	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, 404-417.	6.6	154
70	MicroRNA-Dependent Trans-Acting siRNA Production. Science Signaling, 2005, 2005, pe43-pe43.	3.6	61
71	Auxin and Light Control of Adventitious Rooting in Arabidopsis Require ARGONAUTE1. Plant Cell, 2005, 17, 1343-1359.	6.6	339
72	Arabidopsis Histone Deacetylase HDA6 Is Required for Maintenance of Transcriptional Gene Silencing and Determines Nuclear Organization of rDNA Repeats. Plant Cell, 2004, 16, 1021-1034.	6.6	264

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73	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, 1004-1014.	5.7	130
74	MicroRNAs: something important between the genes. Current Opinion in Plant Biology, 2004, 7, 120-125.	7.1	133
75	The Nuclear dsRNA Binding Protein HYL1 Is Required for MicroRNA Accumulation and Plant Development, but Not Posttranscriptional Transgene Silencing. Current Biology, 2004, 14, 346-351.	3.9	498
76	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, 1187-1197.	5.9	868
77	Endogenous trans-Acting siRNAs Regulate the Accumulation of Arabidopsis mRNAs. Molecular Cell, 2004, 16, 69-79.	9.7	742
78	Arabidopsis HEN1. Current Biology, 2003, 13, 843-848.	3.9	276
79	Fertile Hypomorphic ARGONAUTE (ago1) Mutants Impaired in Post-Transcriptional Gene Silencing and Virus Resistance. Plant Cell, 2002, 14, 629-639.	6.6	575
80	RNA Silencing and the Mobile Silencing Signal. Plant Cell, 2002, 14, S289-S301.	6.6	221
81	A Branched Pathway for Transgene-Induced RNA Silencing in Plants. Current Biology, 2002, 12, 684-688.	3.9	238
82	Transcriptional gene silencing in plants: targets, inducers and regulators. Trends in Genetics, 2001, 17, 29-35.	6.7	335
83	HC-Pro Suppression of Transgene Silencing Eliminates the Small RNAs but Not Transgene Methylation or the Mobile Signal. Plant Cell, 2001, 13, 571.	6.6	2
84	HC-Pro Suppression of Transgene Silencing Eliminates the Small RNAs but Not Transgene Methylation or the Mobile Signal. Plant Cell, 2001, 13, 571-583.	6.6	275
85	Gene Activation and Gene Silencing: Fig. 1.. Plant Physiology, 2001, 125, 145-148.	4.8	44
86	Plant viral suppressors of post-transcriptional silencing do not suppress transcriptional silencing. Plant Journal, 2000, 22, 51-59.	5.7	36
87	DNA methylation and chromatin structure affect transcriptional and post-transcriptional transgene silencing in Arabidopsis. Current Biology, 2000, 10, 1591-1594.	3.9	220
88	Systemic silencing signal(s). , 2000, 43, 285-293.		81
89	Post-transcriptional gene silencing mutants. , 2000, 43, 275-284.		17
90	Arabidopsis SGS2 and SGS3 Genes Are Required for Posttranscriptional Gene Silencing and Natural Virus Resistance. Cell, 2000, 101, 533-542.	28.9	999

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91	Are Gene Silencing Mutants Good Tools for Reliable Transgene Expression or Reliable Silencing of Endogenous Genes in Plants?. , 2000, 22, 155-170.		6
92	Systemic silencing signal(s). , 2000, , 165-173.		2
93	Expression and sequence requirements for nitrite reductase co-suppression. , 1999, 41, 105-114.		7
94	Infection of Tobacco orArabidopsisPlants by CMV Counteracts Systemic Post-transcriptional Silencing of Nonviral (Trans)Genes. Virology, 1998, 252, 313-317.	2.4	171
95	Transgene-induced gene silencing in plants. Plant Journal, 1998, 16, 651-659.	5.7	433
96	Arabidopsis Mutants Impaired in Cosuppression. Plant Cell, 1998, 10, 1747-1757.	6.6	242
97	Arabidopsis Mutants Impaired in Cosuppression. Plant Cell, 1998, 10, 1747.	6.6	20
98	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, 9675-9680.	7.1	111
99	A Transcriptionally Active State Is Required for Post-Transcriptional Silencing (Cosuppression) of Nitrate Reductase Host Genes and Transgenes. Plant Cell, 1997, 9, 1495.	6.6	19
100	Title is missing!. Euphytica, 1997, 93, 195-200.	1.2	4
101	Requirement of sense transcription for homologyâ€dependent virus resistance and trans â€inactivation. Plant Journal, 1997, 12, 597-603.	5.7	25
102	Requirement of sense transcription for homologyâ€dependent virus resistance and <i>transâ€</i>inactivation. Plant Journal, 1997, 12, 597-603.	5.7	118
103	Expression of single copies of a strongly expressed 35S transgene can be silenced post-transcriptionally. Plant Journal, 1996, 9, 787-797.	5.7	290
104	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, 1075-1083.	3.9	46
105	Molecular and genetic analysis of nitrite reductase co-suppression in transgenic tobacco plants. Molecular Genetics and Genomics, 1995, 248, 311-317.	2.4	53
106	Gene silencing in higher plants and related phenomena in other eucaryotes. Plant Science, 1995, 111, 249-250.	3.6	0
107	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.	3.6	12
108	Nitrite reductase silencing as a tool for selecting spontaneous haploid plants. Plant Cell Reports, 1995, 15, 12-16.	5.6	4

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109	Co-suppression of nitrate reductase host genes and transgenes in transgenic tobacco plants. Molecular Genetics and Genomics, 1994, 243, 613-621.	2.4	92
110	Cloning and expression of distinct nitrite reductases in tobacco leaves and roots. Molecular Genetics and Genomics, 1993, 236-236, 203-208.	2.4	67
111	Regulation of nitrate and nitrite reductase expression in <i>Nicotiana plumbaginifolia</i> leaves by nitrogen and carbon metabolites. Plant Journal, 1993, 3, 315-324.	5.7	247
112	Over-expression of acetolactate synthase confers resistance to valine in transgenic tobacco. Plant Science, 1993, 88, 159-168.	3.6	21
113	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, 259-268.	2.4	55
114	Inhibition of tobacco nitrite reductase activity by expression of antisense RNA.. Plant Journal, 1992, 2, 559-569.	5.7	101
115	Inhibition of tobacco nitrite reductase activity by expression of antisense RNA. Plant Journal, 1992, 2, 559-569.	5.7	2
116	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.	2.4	53
117	Nitrate Reductase mRNA Regulation in Nicotiana plumbaginifolia Nitrate Reductase-Deficient Mutants. Plant Cell, 1989, 1, 1111.	6.6	31
118	Molecular cloning and characterisation of the two homeologous genes coding for nitrate reductase in tobacco. Molecular Genetics and Genomics, 1989, 216, 10-15.	2.4	94
119	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, 552-562.	2.4	115