Olivier Voinnet

List of Publications by Year
in descending order

118 papers	32,624 citations	9264 74 h-index	13770 129 g-index
137 all docs	137 docs citations	137 times ranked	24596 citing authors

#	Article	IF	Citations
1	Origin, Biogenesis, and Activity of Plant MicroRNAs. Cell, 2009, 136, 669-687.	28.9	2,004
2	A Plant miRNA Contributes to Antibacterial Resistance by Repressing Auxin Signaling. Science, 2006, 312, 436-439.	12.6	1,762
3	Widespread Translational Inhibition by Plant miRNAs and siRNAs. Science, 2008, 320, 1185-1190.	12.6	1,352
4	Antiviral Immunity Directed by Small RNAs. Cell, 2007, 130, 413-426.	28.9	1,304
5	Criteria for Annotation of Plant MicroRNAs. Plant Cell, 2008, 20, 3186-3190.	6.6	1,158
6	Suppression of gene silencing: A general strategy used by diverse DNA and RNA viruses of plants. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 14147-14152.	7.1	931
7	Multivesicular bodies associate with components of miRNA effector complexes and modulate miRNA activity. Nature Cell Biology, 2009, 11, 1143-1149.	10.3	915
8	Initiation and Maintenance of Virus-Induced Gene Silencing. Plant Cell, 1998, 10, 937-946.	6.6	896
9	Two classes of short interfering RNA in RNA silencing. EMBO Journal, 2002, 21, 4671-4679.	7.8	865
10	A Cellular MicroRNA Mediates Antiviral Defense in Human Cells. Science, 2005, 308, 557-560.	12.6	859
11	Hierarchical Action and Inhibition of Plant Dicer-Like Proteins in Antiviral Defense. Science, 2006, 313, 68-71.	12.6	818
12	Induction and suppression of RNA silencing: insights from viral infections. Nature Reviews Genetics, 2005, 6, 206-220.	16.3	703
13	Systemic Spread of Sequence-Specific Transgene RNA Degradation in Plants Is Initiated by Localized Introduction of Ectopic Promoterless DNA. Cell, 1998, 95, 177-187.	28.9	674
14	RNA silencing as a plant immune system against viruses. Trends in Genetics, 2001, 17, 449-459.	6.7	665
15	The diversity of RNA silencing pathways in plants. Trends in Genetics, 2006, 22, 268-280.	6.7	662
16	A Viral Movement Protein Prevents Spread of the Gene Silencing Signal in Nicotiana benthamiana. Cell, 2000, 103, 157-167.	28.9	591
17	Roles of Plant Small RNAs in Biotic Stress Responses. Annual Review of Plant Biology, 2009, 60, 485-510.	18.7	590
18	Revisiting the principles of microRNA target recognition and mode of action. Nature Reviews Molecular Cell Biology, 2009, 10, 141-148.	37.0	588

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19	RNA silencing suppression by plant pathogens: defence, counter-defence and counter-counter-defence. Nature Reviews Microbiology, 2013, 11, 745-760.	28.6	546
20	Systemic signalling in gene silencing. Nature, 1997, 389, 553-553.	27.8	544
21	The Diversity, Biogenesis, and Activities of Endogenous Silencing Small RNAs in Arabidopsis. Annual Review of Plant Biology, 2014, 65, 473-503.	18.7	517
22	Transitivity-dependent and -independent cell-to-cell movement of RNA silencing. EMBO Journal, 2003, 22, 4523-4533.	7.8	514
23	RNAâ€“DNA Interactions and DNA Methylation in Post-Transcriptional Gene Silencing. Plant Cell, 1999, 11, 2291-2301.	6.6	477
24	Dynamics and biological relevance of DNA demethylation in Arabidopsis antibacterial defense. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2389-2394.	7.1	396
25	DICER-LIKE 4 is required for RNA interference and produces the 21-nucleotide small interfering RNA component of the plant cell-to-cell silencing signal. Nature Genetics, 2005, 37, 1356-1360.	21.4	366
26	Antiviral RNA Interference in Mammalian Cells. Science, 2013, 342, 235-238.	12.6	344
27	Suppression of the MicroRNA Pathway by Bacterial Effector Proteins. Science, 2008, 321, 964-967.	12.6	341
28	The long and the short of noncoding RNAs. Current Opinion in Cell Biology, 2009, 21, 416-425.	5.4	339
29	A Role for RNAi in the Selective Correction of DNA Methylation Defects. Science, 2009, 323, 1600-1604.	12.6	338
30	In vivo investigation of the transcription, processing, endonucleolytic activity, and functional relevance of the spatial distribution of a plant miRNA. Genes and Development, 2004, 18, 2237-2242.	5.9	325
31	Small RNA Duplexes Function as Mobile Silencing Signals Between Plant Cells. Science, 2010, 328, 912-916.	12.6	323
32	LINE-1 Activity in Facultative Heterochromatin Formation during X Chromosome Inactivation. Cell, 2010, 141, 956-969.	28.9	296
33	Biochemical Evidence for Translational Repression by Arabidopsis MicroRNAs. Plant Cell, 2009, 21, 1762-1768.	6.6	289
34	Reconstructing de novo silencing of an active plant retrotransposon. Nature Genetics, 2013, 45, 1029-1039.	21.4	248
35	The Arabidopsis miR472-RDR6 Silencing Pathway Modulates PAMP- and Effector-Triggered Immunity through the Post-transcriptional Control of Disease Resistance Genes. PLoS Pathogens, 2014, 10, e1003883.	4.7	233
36	Argonaute quenching and global changes in Dicer homeostasis caused by a pathogen-encoded GW repeat protein. Genes and Development, 2010, 24, 904-915.	5.9	228

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37	Selective autophagy degrades DICER and AGO2 and regulates miRNA activity. Nature Cell Biology, 2012, 14, 1314-1321.	10.3	225
38	RNA Silencing and the Mobile Silencing Signal. Plant Cell, 2002, 14, S289-S301.	6.6	221
39	An endogenous, systemic RNAi pathway in plants. EMBO Journal, 2010, 29, 1699-1712.	7.8	218
40	RNA silencing of host transcripts by cauliflower mosaic virus requires coordinated action of the four Arabidopsis Dicer-like proteins. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 19593-19598.	7.1	214
41	Intra- and intercellular RNA interference in Arabidopsis thaliana requires components of the microRNA and heterochromatic silencing pathways. Nature Genetics, 2007, 39, 848-856.	21.4	211
42	Use, tolerance and avoidance of amplified RNA silencing by plants. Trends in Plant Science, 2008, 13, 317-328.	8.8	200
43	A Small-RNA Perspective on Gametogenesis, Fertilization, and Early Zygotic Development. Science, 2010, 330, 617-622.	12.6	195
44	Nucleo-cytosolic Shuttling of ARGONAUTE1 Prompts a Revised Model of the Plant MicroRNA Pathway. Molecular Cell, 2018, 69, 709-719.e5.	9.7	193
45	Non-cell autonomous RNA silencing. FEBS Letters, 2005, 579, 5858-5871.	2.8	175
46	Nuclear import of CaMV P6 is required for infection and suppression of the RNA silencing factor DRB4. EMBO Journal, 2008, 27, 2102-2112.	7.8	173
47	Viral suppression of RNA silencing in plants. Molecular Plant Pathology, 2004, 5, 71-82.	4.2	159
48	Transitivity in Arabidopsis can be primed, requires the redundant action of the antiviral Dicer-like 4 and Dicer-like 2, and is compromised by viral-encoded suppressor proteins. Rna, 2007, 13, 1268-1278.	3.5	154
49	The Extracellular RNA Communication Consortium: Establishing Foundational Knowledge and Technologies for Extracellular RNA Research. Cell, 2019, 177, 231-242.	28.9	152
50	The complex interplay between plant viruses and host RNA-silencing pathways. Current Opinion in Plant Biology, 2005, 8, 415-423.	7.1	147
51	RNA silencing: small RNAs as ubiquitous regulators of gene expression. Current Opinion in Plant Biology, 2002, 5, 444-451.	7.1	138
52	The endogenous siRNA pathway is involved in heterochromatin formation in Drosophila. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21258-21263.	7.1	137
53	NERD, a Plant-Specific GW Protein, Defines an Additional RNAi-Dependent Chromatin-Based Pathway in Arabidopsis. Molecular Cell, 2012, 48, 121-132.	9.7	134
54	Induction, suppression and requirement of RNA silencing pathways in virulent Agrobacterium tumefaciens infections. Nature Genetics, 2006, 38, 258-263.	21.4	132

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55	Cell-to-cell and long-distance siRNA movement in plants: mechanisms and biological implications. Current Opinion in Plant Biology, 2011, 14, 580-587.	7.1	119
56	Nonsense-Mediated Decay Serves as a General Viral Restriction Mechanism in Plants. Cell Host and Microbe, 2014, 16, 391-402.	11.0	119
57	LOST MERISTEMS genes regulate cell differentiation of central zone descendants in Arabidopsis shoot meristems. Plant Journal, 2010, 64, 668-678.	5.7	117
58	Two MicroRNAs Linked to Nodule Infection and Nitrogen-Fixing Ability in the Legume Lotus japonicus Â Â. Plant Physiology, 2012, 160, 2137-2154.	4.8	116
59	A Complex Small RNA Repertoire Is Generated by a Plant/Fungal-Like Machinery and Effected by a Metazoan-Like Argonaute in the Single-Cell Human Parasite Toxoplasma gondii. PLoS Pathogens, 2010, 6, e1000920.	4.7	113
60	Post-transcriptional RNA silencing in plantâ€“microbe interactions: a touch of robustness and versatility. Current Opinion in Plant Biology, 2008, 11, 464-470.	7.1	111
61	SKI2 mediates degradation of RISC 5â€²-cleavage fragments and prevents secondary siRNA production from miRNA targets inArabidopsis. Nucleic Acids Research, 2015, 43, 10975-10988.	14.5	109
62	Kaposi's Sarcoma Herpesvirus microRNAs Target Caspase 3 and Regulate Apoptosis. PLoS Pathogens, 2011, 7, e1002405.	4.7	108
63	Isoprenoid biosynthesis is required for miRNA function and affects membrane association of ARGONAUTE 1 in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1778-1783.	7.1	101
64	Functional Analysis of Gene-Silencing Suppressors from Tomato Yellow Leaf Curl Disease Viruses. Molecular Plant-Microbe Interactions, 2012, 25, 1294-1306.	2.6	98
65	Mouse Cytomegalovirus MicroRNAs Dominate the Cellular Small RNA Profile during Lytic Infection and Show Features of Posttranscriptional Regulation. Journal of Virology, 2007, 81, 13771-13782.	3.4	95
66	RNA silencing: no mercy for viruses?. Immunological Reviews, 2004, 198, 285-303.	6.0	92
67	Endogenous TasiRNAs Mediate Non-Cell Autonomous Effects on Gene Regulation in Arabidopsis thaliana. PLoS ONE, 2009, 4, e5980.	2.5	92
68	ncPRO-seq: a tool for annotation and profiling of ncRNAs in sRNA-seq data. Bioinformatics, 2012, 28, 3147-3149.	4.1	91
69	Misregulation of AUXIN RESPONSE FACTOR 8 Underlies the Developmental Abnormalities Caused by Three Distinct Viral Silencing Suppressors in Arabidopsis. PLoS Pathogens, 2011, 7, e1002035.	4.7	85
70	Competition for XPO5 binding between Dicer mRNA, pre-miRNA and viral RNA regulates human Dicer levels. Nature Structural and Molecular Biology, 2011, 18, 323-327.	8.2	84
71	Biogenesis, delivery, and function of extracellular RNA. Journal of Extracellular Vesicles, 2015, 4, 27494.	12.2	80
72	Ago Hook and RNA Helicase Motifs Underpin Dual Roles for SDE3 in Antiviral Defense and Silencing of Nonconserved Intergenic Regions. Molecular Cell, 2012, 48, 109-120.	9.7	77

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73	Differential effects of viral silencing suppressors on siRNA and miRNA loading support the existence of two distinct cellular pools of ARGONAUTE1. EMBO Journal, 2012, 31, 2553-2565.	7.8	77
74	Highly Dynamic and Sex-Specific Expression of microRNAs During Early ES Cell Differentiation. PLoS Genetics, 2009, 5, e1000620.	3.5	73
75	Control of RNA silencing and localization by endolysosomes. Trends in Cell Biology, 2010, 20, 491-501.	7.9	66
76	A Meta-Analysis Reveals the Commonalities and Differences in Arabidopsis thaliana Response to Different Viral Pathogens. PLoS ONE, 2012, 7, e40526.	2.5	64
77	Initiation and Maintenance of Virus-Induced Gene Silencing. Plant Cell, 1998, 10, 937.	6.6	62
78	Enhanced microRNA accumulation through stemloopâ€adjacent introns. EMBO Reports, 2013, 14, 615-621.	4.5	55
79	Movement and differential consumption of short interfering RNA duplexes underlie mobile RNA interference. Nature Plants, 2020, 6, 789-799.	9.3	54
80	Small RNA-mediated repair of UV-induced DNA lesions by the DNA DAMAGE-BINDING PROTEIN 2 and ARGONAUTE 1. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2965-E2974.	7.1	51
81	A single miR390 targeting event is sufficient for triggering TAS3-tasiRNA biogenesis in Arabidopsis. Nucleic Acids Research, 2017, 45, 5539-5554.	14.5	48
82	A genome-wide transcriptome and translatome analysis of Arabidopsis transposons identifies a unique and conserved genome expression strategy for Ty1/Copia retroelements. Genome Research, 2017, 27, 1549-1562.	5.5	46
83	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
84	Human prion protein binds Argonaute and promotes accumulation of microRNA effector complexes. Nature Structural and Molecular Biology, 2012, 19, 517-524.	8.2	43
85	Extreme Resistance as a Host Counter-counter Defense against Viral Suppression of RNA Silencing. PLoS Pathogens, 2013, 9, e1003435.	4.7	43
86	Structural Flexibility Enables Alternative Maturation, ARGONAUTE Sorting and Activities of miR168, a Global Gene Silencing Regulator in Plants. Molecular Plant, 2018, 11, 1008-1023.	8.3	43
87	DNA Methylation Influences the Expression of DICER-LIKE4 Isoforms, Which Encode Proteins of Alternative Localization and Function. Plant Cell, 2016, 28, 2786-2804.	6.6	41
88	Genomeâ€scale, singleâ€cellâ€type resolution of micro <scp>RNA</scp> activities within a whole plant organ. EMBO Journal, 2019, 38, e100754.	7.8	41
89	Autophagy selectively regulates miRNA homeostasis. Autophagy, 2013, 9, 781-783.	9.1	38
90	RNAi-Dependent and Independent Control of LINE1 Accumulation and Mobility in Mouse Embryonic Stem Cells. PLoS Genetics, 2013, 9, e1003791.	3.5	37

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91	HASTY , the Arabidopsis EXPORTIN5 ortholog, regulates cellâ€toâ€cell and vascular microRNA movement. EMBO Journal, 2021, 40, e107455.	7.8	33
92	RNA silencing amplification in plants: Size matters. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14945-14946.	7.1	31
93	Deep-Sequencing Protocols Influence the Results Obtained in Small-RNA Sequencing. PLoS ONE, 2012, 7, e32724.	2.5	31
94	Biochemical and genetic functional dissection of the P38 viral suppressor of RNA silencing. Rna, 2017, 23, 639-654.	3.5	29
95	Mixing and matching: the essence of plant systemic silencing?. Trends in Genetics, 2008, 24, 151-154.	6.7	28
96	Viral suppression of RNA silencing: 2b wins the Golden Fleece by defeating Argonaute. BioEssays, 2007, 29, 319-323.	2.5	27
97	RNA silencing bridging the gaps in wheat extracts. Trends in Plant Science, 2003, 8, 307-309.	8.8	23
98	Movement of RNA silencing between plant cells: is the question now behind us?. Trends in Plant Science, 2009, 14, 643-644.	8.8	23
99	A universal method for the rapid isolation of all known classes of functional silencing small RNAs. Nucleic Acids Research, 2020, 48, e79-e79.	14.5	22
100	Functional characterization of Arabidopsis ARGONAUTE 3 in reproductive tissues. Plant Journal, 2020, 103, 1796-1809.	5.7	22
101	Micro-balancing innate immunity toSalmonella. EMBO Journal, 2011, 30, 1877-1879.	7.8	21
102	Biotic Stress-Associated microRNAs: Identification, Detection, Regulation, and Functional Analysis. Methods in Molecular Biology, 2010, 592, 183-202.	0.9	20
103	Shaping small RNAs in plants by gene duplication. Nature Genetics, 2004, 36, 1245-1246.	21.4	18
104	miRNA processing turned upside down. EMBO Journal, 2009, 28, 3633-3634.	7.8	16
105	Antiviral RNA Silencing in Mammals: No News Is Not Good News. Cell Reports, 2014, 9, 795-797.	6.4	14
106	Revisiting small RNA movement in plants. Nature Reviews Molecular Cell Biology, 2022, 23, 163-164.	37.0	13
107	girafe â€“ an R/Bioconductor package for functional exploration of aligned next-generation sequencing reads. Bioinformatics, 2010, 26, 2902-2903.	4.1	12
108	Extensive profiling in Arabidopsis reveals abundant polysome-associated 24-nt small RNAs including AGO5-dependent pseudogene-derived siRNAs. Rna, 2019, 25, 1098-1117.	3.5	12

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109	Fly Antiviral RNA Silencing and miRNA Biogenesis Claim ARS2. Cell Host and Microbe, 2009, 6, 99-101.	11.0	8
110	Exploring new models of easiRNA biogenesis. Nature Genetics, 2014, 46, 530-531.	21.4	8
111	Innate, translationâ€dependent silencing of an invasive transposon in Arabidopsis. EMBO Reports, 2022, 23, e53400.	4.5	8
112	The protein kinase TOUSLED facilitates RNAi inArabidopsis. Nucleic Acids Research, 2014, 42, 7971-7980.	14.5	7
113	Chemical enhancers of posttranscriptional gene silencing in Arabidopsis. Rna, 2019, 25, 1078-1090.	3.5	7
114	RNA-DNA Interactions and DNA Methylation in Post-Transcriptional Gene Silencing. Plant Cell, 1999, 11, 2291.	6.6	5
115	LINE-1 Activity in Facultative Heterochromatin Formation during X Chromosome Inactivation. Cell, 2016, 166, 782.	28.9	5
116	Suppression of both intraâ€and intercellular RNA silencing by the tombusviral P19 protein requires its small RNA binding property. New Phytologist, 2022, 235, 824-829.	7.3	5
117	MicroRNA and autophagyâ€" C. elegans joins the crew. EMBO Reports, 2013, 14, 485-487.	4.5	3
118	How to become your own worst enemy. Nature Immunology, 2013, 14, 315-317.	14.5	1