Robert A Martienssen

List of Publications by Year
in descending order

102 papers	25,507 citations	20759 60 h-index	33814 99 g-index
113 all docs	113 docs citations	113 times ranked	22168 citing authors

#	Article	IF	Citations
1	The B73 Maize Genome: Complexity, Diversity, and Dynamics. Science, 2009, 326, 1112-1115.	6.0	3,612
2	Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi. Science, 2002, 297, 1833-1837.	6.0	1,889
3	Transposable elements and the epigenetic regulation of the genome. Nature Reviews Genetics, 2007, 8, 272-285.	7.7	1,709
4	Transgenerational Epigenetic Inheritance: Myths and Mechanisms. Cell, 2014, 157, 95-109.	13.5	1,393
5	The expanding world of small RNAs in plants. Nature Reviews Molecular Cell Biology, 2015, 16, 727-741.	16.1	932
6	Epigenetic Reprogramming and Small RNA Silencing of Transposable Elements in Pollen. Cell, 2009, 136, 461-472.	13.5	908
7	RNA interference in the nucleus: roles for small RNAs in transcription, epigenetics and beyond. Nature Reviews Genetics, 2013, 14, 100-112.	7.7	871
8	Understanding mechanisms of novel gene expression in polyploids. Trends in Genetics, 2003, 19, 141-147.	2.9	812
9	Arabidopsis thaliana DNA methylation mutants. Science, 1993, 260, 1926-1928.	6.0	668
10	Control of female gamete formation by a small RNA pathway in Arabidopsis. Nature, 2010, 464, 628-632.	13.7	574
11	Arabidopsis TFL2/LHP1 Specifically Associates with Genes Marked by Trimethylation of Histone H3 Lysine 27. PLoS Genetics, 2007, 3, e86.	1.5	537
12	Reprogramming of DNA Methylation in Pollen Guides Epigenetic Inheritance via Small RNA. Cell, 2012, 151, 194-205.	13.5	506
13	The crystal structure of the Argonaute2 PAZ domain reveals an RNA binding motif in RNAi effector complexes. Nature Structural and Molecular Biology, 2003, 10, 1026-1032.	3.6	487
14	Oil palm genome sequence reveals divergence of interfertile species in Old and New worlds. Nature, 2013, 500, 335-339.	13.7	468
15	DNA Methylation and Epigenetic Inheritance in Plants and Filamentous Fungi. Science, 2001, 293, 1070-1074.	6.0	456
16	Genetic Definition and Sequence Analysis of Arabidopsis Centromeres. Science, 1999, 286, 2468-2474.	6.0	417
17	Dependence of Heterochromatic Histone H3 Methylation Patterns on the Arabidopsis Gene DDM1. Science, 2002, 297, 1871-1873.	6.0	417
18	Loss of Karma transposon methylation underlies theÂmantled somaclonal variant of oil palm. Nature, 2015, 525, 533-537.	13.7	405

#	Article	IF	Citations
19	Epigenetic Natural Variation in Arabidopsis thaliana. PLoS Biology, 2007, 5, e174.	2.6	400
20	Noncoding RNAs and Gene Silencing. Cell, 2007, 128, 763-776.	13.5	372
21	Specification of Leaf Polarity in Arabidopsis via the trans-Acting siRNA Pathway. Current Biology, 2006, 16, 933-938.	1.8	340
22	miRNAs trigger widespread epigenetically activated siRNAs from transposons in Arabidopsis. Nature, 2014, 508, 411-415.	13.7	331
23	Genomic changes in synthetic Arabidopsis polyploids. Plant Journal, 2004, 41, 221-230.	2.8	320
24	Robertson's Mutator transposons in A. thaliana are regulated by the chromatin-remodeling gene Decrease in DNA Methylation (DDM1). Genes and Development, 2001, 15, 591-602.	2.7	294
25	RNA interference is required for normal centromere function in fission yeast. Chromosome Research, 2003, 11, 137-146.	1.0	284
26	The Arabidopsis thaliana mobilome and its impact at the species level. ELife, 2016, 5, .	2.8	271
27	The maize methylome influences mRNA splice sites and reveals widespread paramutation-like switches guided by small RNA. Genome Research, 2013, 23, 1651-1662.	2.4	260
28	RNA Polymerase II Is Required for RNAi-Dependent Heterochromatin Assembly. Science, 2005, 309, 467-469.	6.0	258
29	Differential methylation of genes and retrotransposons facilitates shotgun sequencing of the maize genome. Nature Genetics, 1999, 23, 305-308.	9.4	237
30	RNAi and Heterochromatin Assembly. Cold Spring Harbor Perspectives in Biology, 2015, 7, a019323.	2.3	236
31	Nucleosomes and DNA methylation shape meiotic DSB frequency in <i>Arabidopsis thaliana</i> transposons and gene regulatory regions. Genome Research, 2018, 28, 532-546.	2.4	190
32	Maintenance of heterochromatin by RNA interference of tandem repeats. Nature Genetics, 2003, 35, 213-214.	9.4	188
33	The genetic and epigenetic landscape of the <i>Arabidopsis</i> centromeres. Science, 2021, 374, eabi7489.	6.0	188
34	Argonaute Slicing Is Required for Heterochromatic Silencing and Spreading. Science, 2006, 313, 1134-1137.	6.0	182
35	Epigenomic Consequences of Immortalized Plant Cell Suspension Culture. PLoS Biology, 2008, 6, e302.	2.6	179
36	Selective Methylation of Histone H3 Variant H3.1 Regulates Heterochromatin Replication. Science, 2014, 343, 1249-1253.	6.0	165

#	Article	IF	Citations
37	Differential Regulation of Strand-Specific Transcripts from Arabidopsis Centromeric Satellite Repeats. PLoS Genetics, 2005, 1, e79.	1.5	162
38	Targeted reprogramming of H3K27me3 resets epigenetic memory in plant paternal chromatin. Nature Cell Biology, 2020, 22, 621-629.	4.6	149
39	The role of ARGONAUTE1 (AGO1) in meristem formation and identity. Developmental Biology, 2005, 280, 504-517.	0.9	148
40	Natural variation and dosage of the HEI10 meiotic E3 ligase control <i>Arabidopsis</i> crossover recombination. Genes and Development, 2017, 31, 306-317.	2.7	147
41	RNAi promotes heterochromatic silencing through replication-coupled release of RNA Pol II. Nature, 2011, 479, 135-138.	13.7	142
42	MicroRNA-Targeted and Small Interfering RNAâ€“Mediated mRNA Degradation Is Regulated by Argonaute, Dicer, and RNA-Dependent RNA Polymerase in Arabidopsis. Plant Cell, 2006, 18, 1559-1574.	3.1	141
43	Epigenetic activation of meiotic recombination near <i>Arabidopsis thaliana</i> centromeres via loss of H3K9me2 and non-CG DNA methylation. Genome Research, 2018, 28, 519-531.	2.4	138
44	Global Effects on Gene Expression in Fission Yeast by Silencing and RNA Interference Machineries. Molecular and Cellular Biology, 2005, 25, 590-601.	1.1	132
45	RNA interference and heterochromatin in the fission yeast Schizosaccharomyces pombe. Trends in Genetics, 2005, 21, 450-456.	2.9	129
46	Transposon-derived small RNAs triggered by miR845 mediate genome dosage response in Arabidopsis. Nature Genetics, 2018, 50, 186-192.	9.4	126
47	Genes and Transposons Are Differentially Methylated in Plants, but Not in Mammals. Genome Research, 2003, 13, 2658-2664.	2.4	122
48	S. pombe LSD1 Homologs Regulate Heterochromatin Propagation and Euchromatic Gene Transcription. Molecular Cell, 2007, 26, 89-101.	4.5	102
49	Dicer Promotes Transcription Termination at Sites of Replication Stress to Maintain Genome Stability. Cell, 2014, 159, 572-583.	13.5	102
50	Live-cell analysis of DNA methylation during sexual reproduction in <i>Arabidopsis</i> reveals context and sex-specific dynamics controlled by noncanonical RdDM. Genes and Development, 2017, 31, 72-83.	2.7	96
51	Endogenous TasiRNAs Mediate Non-Cell Autonomous Effects on Gene Regulation in Arabidopsis thaliana. PLoS ONE, 2009, 4, e5980.	1.1	92
52	The histone methyltransferase SDG8 mediates the epigenetic modification of light and carbon responsive genes in plants. Genome Biology, 2015, 16, 79.	3.8	91
53	Heterochromatin, small RNA and postâ€fertilization dysgenesis in allopolyploid and interploid hybrids of <i>Arabidopsis</i>. New Phytologist, 2010, 186, 46-53.	3.5	86
54	RNA-directed DNA methylation regulates parental genomic imprinting at several loci in <i>Arabidopsis</i>. Development (Cambridge), 2013, 140, 2953-2960.	1.2	80

#	Article	IF	Citations
55	Genetic and epigenetic variation of transposable elements in Arabidopsis. Current Opinion in Plant Biology, 2017, 36, 135-141.	3.5	79
56	FACS-based purification of Arabidopsis microspores, sperm cells and vegetative nuclei. Plant Methods, 2012, 8, 44.	1.9	76
57	Ribonuclease Activity of Dis3 Is Required for Mitotic Progression and Provides a Possible Link between Heterochromatin and Kinetochore Function. PLoS ONE, 2007, 2, e317.	1.1	75
58	RNAi, heterochromatin and the cell cycle. Trends in Genetics, 2008, 24, 511-517.	2.9	68
59	The oil palm VIRESCENS gene controls fruit colour and encodes a R2R3-MYB. Nature Communications, 2014, 5, 4106.	5.8	67
60	Arabidopsis thaliana Chromosome 4 Replicates in Two Phases That Correlate with Chromatin State. PLoS Genetics, 2010, 6, e1000982.	1.5	65
61	RNA Interference and Heterochromatin Assembly. Cold Spring Harbor Perspectives in Biology, 2011, 3, a003731-a003731.	2.3	62
62	Conserved chromosomal functions of RNA interference. Nature Reviews Genetics, 2020, 21, 311-331.	7.7	62
63	Multiple roles for small RNAs during plant reproduction. Current Opinion in Plant Biology, 2011, 14, 588-593.	3.5	60
64	Genome and time-of-day transcriptome of <i>Wolffia australiana</i> link morphological minimization with gene loss and less growth control. Genome Research, 2021, 31, 225-238.	2.4	56
65	RNA interference is essential for cellular quiescence. Science, 2016, 354, .	6.0	52
66	Chromosomal imprinting in plants. Current Opinion in Genetics and Development, 1998, 8, 240-244.	1.5	51
67	Transcriptional reprogramming in cellular quiescence. RNA Biology, 2017, 14, 843-853.	1.5	50
68	Epigenomic mapping in Arabidopsis using tiling microarrays. Chromosome Research, 2005, 13, 299-308.	1.0	46
69	Polymerase IV Plays a Crucial Role in Pollen Development in <i>Capsella</i>. Plant Cell, 2020, 32, 950-966.	3.1	46
70	Male fertility in Arabidopsis requires active DNA demethylation of genes that control pollen tube function. Nature Communications, 2021, 12, 410.	5.8	41
71	Tie-Break: Host and Retrotransposons Play tRNA. Trends in Cell Biology, 2018, 28, 793-806.	3.6	38
72	Differential sRNA Regulation in Leaves and Roots of Sugarcane under Water Depletion. PLoS ONE, 2014, 9, e93822.	1.1	37

#	Article	IF	Citations
73	Genome-Wide Analysis of the Arabidopsis Replication Timing Program. Plant Physiology, 2018, 176, 2166-2185.	2.3	36
74	Loss of Small-RNA-Directed DNA Methylation in the Plant Cell Cycle Promotes Germline Reprogramming and Somaclonal Variation. Current Biology, 2021, 31, 591-600.e4.	1.8	36
75	Global expression changes resulting from loss of telomeric DNA in fission yeast. Genome Biology, 2004, 6, R1.	13.9	35
76	Lsd1 and Lsd2 Control Programmed Replication Fork Pauses and Imprinting in Fission Yeast. Cell Reports, 2012, 2, 1513-1520.	2.9	33
77	<i>Arabidopsis</i> retrotransposon virus-like particles and their regulation by epigenetically activated small RNA. Genome Research, 2020, 30, 576-588.	2.4	33
78	Epigenetic Inheritance and Reprogramming in Plants and Fission Yeast. Cold Spring Harbor Symposia on Quantitative Biology, 2008, 73, 265-271.	2.0	31
79	Small RNAs guide histone methylation in <i>Arabidopsis</i> embryos. Genes and Development, 2021, 35, 841-846.	2.7	31
80	Genome reprogramming and small interfering RNA in the Arabidopsis germline. Current Opinion in Genetics and Development, 2011, 21, 134-139.	1.5	30
81	H3K9me-Independent Gene Silencing in Fission Yeast Heterochromatin by Clr5 and Histone Deacetylases. PLoS Genetics, 2011, 7, e1001268.	1.5	28
82	Genomic Analysis of the DNA Replication Timing Program during Mitotic S Phase in Maize (<i>Zea) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.1	28
83	Establishing epigenetic variation during genome reprogramming. RNA Biology, 2013, 10, 490-494.	1.5	23
84	Small RNA Makes Its Move. Science, 2010, 328, 834-835.	6.0	22
85	RNA-induced initiation of transcriptional silencing (RITS) complex structure and function. RNA Biology, 2019, 16, 1133-1146.	1.5	19
86	New roles for Dicer in the nucleolus and its relevance to cancer. Cell Cycle, 2017, 16, 1643-1653.	1.3	16
87	Slicing and Spreading of Heterochromatic Silencing by RNA Interference. Cold Spring Harbor Symposia on Quantitative Biology, 2006, 71, 497-503.	2.0	15
88	Origins of Novel Phenotypic Variation in Polyploids. , 2012, , 57-76.		15
89	A diffusion model for the coordination of DNA replication in Schizosaccharomyces pombe. Scientific Reports, 2016, 6, 18757.	1.6	15
90	Dicer promotes genome stability via the bromodomain transcriptional co-activator BRD4. Nature Communications, 2022, 13, 1001.	5.8	10

#	Article	IF	Citations
91	Arabidopsis DNA Replication Initiates in Intergenic, AT-Rich Open Chromatin. Plant Physiology, 2020, 183, 206-220.	2.3	9
92	Nucleolar Dominance and DNA Methylation Directed by Small Interfering RNA. Molecular Cell, 2008, 32, 753-754.	4.5	7
93	Germline Reprogramming of Heterochromatin in Plants. Cold Spring Harbor Symposia on Quantitative Biology, 2010, 75, 269-274.	2.0	6
94	The Conserved RNA Binding Cyclophilin, Rct1, Regulates Small RNA Biogenesis and Splicing Independent of Heterochromatin Assembly. Cell Reports, 2017, 19, 2477-2489.	2.9	6
95	Comparing DNA replication programs reveals large timing shifts at centromeres of endocycling cells in maize roots. PLoS Genetics, 2020, 16, e1008623.	1.5	4
96	Phase separation in plant miRNA processing. Nature Cell Biology, 2021, 23, 5-6.	4.6	4
97	Regulation of retrotransposition in Arabidopsis. Biochemical Society Transactions, 2021, 49, 2241-2251.	1.6	3
98	Dicer in action at replication-transcription collisions. Molecular and Cellular Oncology, 2015, 2, e991224.	0.3	2
99	Argonautes team up to silence transposable elements in <i>Arabidopsis</i>. EMBO Journal, 2015, 34, 579-580.	3.5	2
100	Barbara McClintockâ€™s Final Years as Nobelist and Mentor: A Memoir. Cell, 2017, 170, 1049-1054.	13.5	2
101	Getting in LINE with Replication. Molecular Cell, 2019, 74, 415-417.	4.5	0
102	Small RNA Function in Plants: From Chromatin to the Next Generation. Cold Spring Harbor Symposia on Quantitative Biology, 2019, 84, 133-140.	2.0	0