Craig S Pikaard

List of Publications by Year in descending order

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Version: 2024-02-01

119	14,826	59 h-index	117
papers	citations		g-index
163	163	163	10780
all docs	docs citations	times ranked	citing authors

#	Article	IF	CITATIONS
1	A DCL3 dicing code within Pol IV-RDR2 transcripts diversifies the siRNA pool guiding RNA-directed DNA methylation. ELife, 2022, 11 , .	6.0	20
2	Assembly of a dsRNA synthesizing complex: RNA-DEPENDENT RNA POLYMERASE 2 contacts the largest subunit of NUCLEAR RNA POLYMERASE IV. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	16
3	Targeted Enrichment of rRNA Gene Tandem Arrays for Ultra-Long Sequencing by Selective Restriction Endonuclease Digestion. Frontiers in Plant Science, 2021, 12, 656049.	3.6	6
4	Structure and RNA template requirements of $\langle i \rangle$ Arabidopsis $\langle i \rangle$ RNA-DEPENDENT RNA POLYMERASE 2. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	25
5	Reaction Mechanisms of Pol IV, RDR2, and DCL3 Drive RNA Channeling in the siRNA-Directed DNA Methylation Pathway. Molecular Cell, 2019, 75, 576-589.e5.	9.7	93
6	The NRPD1 N-terminus contains a Pol IV-specific motif that is critical for genome surveillance in Arabidopsis. Nucleic Acids Research, 2019, 47, 9037-9052.	14.5	14
7	The Pol IV largest subunit CTD quantitatively affects siRNA levels guiding RNA-directed DNA methylation. Nucleic Acids Research, 2019, 47, 9024-9036.	14.5	8
8	Analysis of siRNA Precursors Generated by RNA Polymerase IV and RNA-Dependent RNA Polymerase 2 in Arabidopsis. Methods in Molecular Biology, 2019, 1933, 33-48.	0.9	1
9	Reconstitution of siRNA Biogenesis In Vitro: Novel Reaction Mechanisms and RNA Channeling in the RNA-Directed DNA Methylation Pathway. Cold Spring Harbor Symposia on Quantitative Biology, 2019, 84, 195-201.	1.1	13
10	Hybrid incompatibility caused by an epiallele. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 3702-3707.	7.1	45
11	Catalytic properties of RNA polymerases IV and V: accuracy, nucleotide incorporation and rNTP/dNTP discrimination. Nucleic Acids Research, 2017, 45, 11315-11326.	14.5	22
12	Mutation of <i>Arabidopsis SMC4</i> identifies condensin as a corepressor of pericentromeric transposons and conditionally expressed genes. Genes and Development, 2017, 31, 1601-1614.	5. 9	25
13	Functional Dissection of the Pol V Largest Subunit CTD in RNA-Directed DNA Methylation. Cell Reports, 2017, 19, 2796-2808.	6.4	24
14	The RNAs of RNA-directed DNA methylation. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2017, 1860, 140-148.	1.9	126
15	Targeting Argonaute to chromatin. Genes and Development, 2016, 30, 2649-2650.	5.9	4
16	50Âyears of Arabidopsis research: highlights and future directions. New Phytologist, 2016, 209, 921-944.	7.3	186
17	Analysis of rRNA Gene Methylation in Arabidopsis thaliana by CHEF-Conventional 2D Gel Electrophoresis. Methods in Molecular Biology, 2016, 1455, 183-202.	0.9	6
18	Identification of Nucleolus-Associated Chromatin Domains Reveals a Role for the Nucleolus in 3D Organization of the A.Âthaliana Genome. Cell Reports, 2016, 16, 1574-1587.	6.4	113

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19	Selective nucleolus organizer inactivation in <i>Arabidopsis</i> is a chromosome position-effect phenomenon. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13426-13431.	7.1	57
20	Chromosome-specific NOR inactivation explains selective rRNA gene silencing and dosage control in <i>Arabidopsis</i> . Genes and Development, 2016, 30, 177-190.	5.9	117
21	Identification of Pol IV and RDR2-dependent precursors of 24 nt siRNAs guiding de novo DNA methylation in Arabidopsis. ELife, 2015, 4, e09591.	6.0	228
22	Subunit compositions of Arabidopsis RNA polymerases I and III reveal Pol I- and Pol III-specific forms of the AC40 subunit and alternative forms of the C53 subunit. Nucleic Acids Research, 2015, 43, 4163-4178.	14.5	21
23	Epigenetic Regulation in Plants. Cold Spring Harbor Perspectives in Biology, 2014, 6, a019315-a019315.	5.5	310
24	Functional Diversification of Maize RNA Polymerase IV and V Subtypes via Alternative Catalytic Subunits. Cell Reports, 2014, 9, 378-390.	6.4	71
25	A Two-Step Process for Epigenetic Inheritance in Arabidopsis. Molecular Cell, 2014, 54, 30-42.	9.7	96
26	Plant Multisubunit RNA Polymerases IV and V. Nucleic Acids and Molecular Biology, 2014, , 289-308.	0.2	8
27	Nuclear Biology: What's Been Most Surprising?. Cell, 2013, 152, 1207-1208.	28.9	3
28	Methylating the DNA of the Most Repressed: Special Access Required. Molecular Cell, 2013, 49, 1021-1022.	9.7	9
29	Subnuclear partitioning of rRNA genes between the nucleolus and nucleoplasm reflects alternative epiallelic states. Genes and Development, 2013, 27, 1545-1550.	5.9	115
30	Intersection of Small RNA Pathways in Arabidopsis thaliana Sub-Nuclear Domains. PLoS ONE, 2013, 8, e65652.	2.5	40
31	A Transcription Fork Model for Pol IV and Pol V-Dependent RNA-Directed DNA Methylation. Cold Spring Harbor Symposia on Quantitative Biology, 2012, 77, 205-212.	1.1	73
32	Histone methyltransferases regulating rRNA gene dose and dosage control in <i>Arabidopsis</i> Genes and Development, 2012, 26, 945-957.	5.9	81
33	Spatial and functional relationships among Pol V-associated loci, Pol IV-dependent siRNAs, and cytosine methylation in the <i>Arabidopsis</i> epigenome. Genes and Development, 2012, 26, 1825-1836.	5.9	137
34	InÂVitro Transcription Activities of Pol IV, Pol V, and RDR2 Reveal Coupling of Pol IV and RDR2 for dsRNA Synthesis in Plant RNA Silencing. Molecular Cell, 2012, 48, 811-818.	9.7	180
35	Functional Consequences of Subunit Diversity in RNA Polymerases II and V. Cell Reports, 2012, 1, 208-214.	6.4	24
36	Multisubunit RNA polymerases IV and V: purveyors of non-coding RNA for plant gene silencing. Nature Reviews Molecular Cell Biology, 2011, 12, 483-492.	37.0	356

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37	Posttranscriptional gene silencing in nuclei. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 409-414.	7.1	80
38	An Atypical Epigenetic Mechanism Affects Uniparental Expression of Pol IV-Dependent siRNAs. PLoS ONE, 2011, 6, e25756.	2.5	21
39	Chromosome and DNA methylation dynamics during meiosis in the autotetraploid Arabidopsis arenosa. Sexual Plant Reproduction, 2010, 23, 29-37.	2.2	42
40	Nucleolar dominance and ribosomal RNA gene silencing. Current Opinion in Cell Biology, 2010, 22, 351-356.	5.4	106
41	An RNA polymerase II- and AGO4-associated protein acts in RNA-directed DNA methylation. Nature, 2010, 465, 106-109.	27.8	228
42	Arabidopsis Histone Lysine Methyltransferases. Advances in Botanical Research, 2010, 53, 1-22.	1.1	103
43	Nucleolin Is Required for DNA Methylation State and the Expression of rRNA Gene Variants in Arabidopsis thaliana. PLoS Genetics, 2010, 6, e1001225.	3.5	121
44	Extra views on RNA-dependent DNA methylation and MBD6-dependent heterochromatin formation in nucleolar dominance. Nucleus, 2010, 1, 254-259.	2.2	15
45	Mechanisms of HDA6-mediated rRNA gene silencing: suppression of intergenic Pol II transcription and differential effects on maintenance versus siRNA-directed cytosine methylation. Genes and Development, 2010, 24, 1119-1132.	5.9	143
46	Extra views on RNA-dependent DNA methylation and MBD6-dependent heterochromatin formation in nucleolar dominance. Nucleus, 2010, 1, 254-259.	2.2	20
47	RNA-Silencing Enzymes Pol IV and Pol V in Maize: More than one Flavor?. PLoS Genetics, 2009, 5, e 1000736 .	3.5	13
48	Metal A and Metal B Sites of Nuclear RNA Polymerases Pol IV and Pol V Are Required for siRNA-Dependent DNA Methylation and Gene Silencing. PLoS ONE, 2009, 4, e4110.	2.5	51
49	PHYTOCHROME B and HISTONE DEACETYLASE 6 Control Light-Induced Chromatin Compaction in Arabidopsis thaliana. PLoS Genetics, 2009, 5, e1000638.	3.5	123
50	RNA Polymerase V Functions in Arabidopsis Interphase Heterochromatin Organization Independently of the 24-nt siRNA-Directed DNA Methylation Pathway. Molecular Plant, 2009, 2, 700-710.	8.3	63
51	NRPD4, a protein related to the RPB4 subunit of RNA polymerase II, is a component of RNA polymerases IV and V and is required for RNA-directed DNA methylation. Genes and Development, 2009, 23, 318-330.	5.9	126
52	RNA polymerase V transcription guides ARGONAUTE4 to chromatin. Nature Genetics, 2009, 41, 630-634.	21.4	410
53	An Effector of RNA-Directed DNA Methylation in Arabidopsis Is an ARGONAUTE 4- and RNA-Binding Protein. Cell, 2009, 137, 498-508.	28.9	220
54	Subunit Compositions of the RNA-Silencing Enzymes Pol IV and Pol V Reveal Their Origins as Specialized Forms of RNA Polymerase II. Molecular Cell, 2009, 33, 192-203.	9.7	225

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55	Heterochromatic siRNAs and DDM1 Independently Silence Aberrant 5S rDNA Transcripts in Arabidopsis. PLoS ONE, 2009, 4, e5932.	2.5	42
56	ROS3 is an RNA-binding protein required for DNA demethylation in Arabidopsis. Nature, 2008, 455, 1259-1262.	27.8	150
57	Multimegabase Silencing in Nucleolar Dominance Involves siRNA-Directed DNA Methylation and Specific Methylcytosine-Binding Proteins. Molecular Cell, 2008, 32, 673-684.	9.7	144
58	Roles of RNA polymerase IV in gene silencing. Trends in Plant Science, 2008, 13, 390-397.	8.8	157
59	siRNA and miRNA processing: new functions for Cajal bodies. Current Opinion in Genetics and Development, 2008, 18, 197-203.	3.3	103
60	Noncoding Transcription by RNA Polymerase Pol IVb/Pol V Mediates Transcriptional Silencing of Overlapping and Adjacent Genes. Cell, 2008, 135, 635-648.	28.9	645
61	Sex-Biased Lethality or Transmission of Defective Transcription Machinery in Arabidopsis. Genetics, 2008, 180, 207-218.	2.9	44
62	VIM1, a methylcytosine-binding protein required for centromeric heterochromatinization. Genes and Development, 2007, 21, 267-277.	5.9	167
63	An SNF2 Protein Associated with Nuclear RNA Silencing and the Spread of a Silencing Signal between Cells in Arabidopsis. Plant Cell, 2007, 19, 1507-1521.	6.6	251
64	Postembryonic Establishment of Megabase-Scale Gene Silencing in Nucleolar Dominance. PLoS ONE, 2007, 2, e1157.	2.5	69
65	RNA Polymerase I: A Multifunctional Molecular Machine. Cell, 2007, 131, 1224-1225.	28.9	18
66	Locus-Specific Ribosomal RNA Gene Silencing in Nucleolar Dominance. PLoS ONE, 2007, 2, e815.	2.5	24
67	Developing a new interdisciplinary lab course for undergraduate and graduate students: Plant cells and proteins. Biochemistry and Molecular Biology Education, 2007, 35, 410-415.	1.2	4
68	Heterochromatin: condense or excise. Nature Cell Biology, 2007, 9, 19-20.	10.3	12
69	<i>In vitro</i> specificities of Arabidopsis coâ€activator histone acetyltransferases: implications for histone hyperacetylation in gene activation. Plant Journal, 2007, 52, 615-626.	5.7	181
70	rRNA gene silencing and nucleolar dominance: Insights into a chromosome-scale epigenetic on/off switch. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 2007, 1769, 383-392.	2.4	132
71	Relationships between transcription, silver staining, and chromatin organization of nucleolar organizers in Secale cereale. Protoplasma, 2007, 232, 55-59.	2.1	24
72	The Arabidopsis Chromatin-Modifying Nuclear siRNA Pathway Involves a Nucleolar RNA Processing Center. Cell, 2006, 126, 79-92.	28.9	399

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73	An ARGONAUTE4-Containing Nuclear Processing Center Colocalized with Cajal Bodies in Arabidopsis thaliana. Cell, 2006, 126, 93-106.	28.9	350
74	Gateway-compatible vectors for plant functional genomics and proteomics. Plant Journal, 2006, 45, 616-629.	5.7	1,658
75	Erasure of histone acetylation by <i>Arabidopsis HDA6</i> mediates large-scale gene silencing in nucleolar dominance. Genes and Development, 2006, 20, 1283-1293.	5.9	219
76	Transcript Profiling in Arabidopsis Reveals Complex Responses to Global Inhibition of DNA Methylation and Histone Deacetylation*[boxs]. Journal of Biological Chemistry, 2005, 280, 796-804.	3.4	116
77	Detecting Differential Expression of Parental or Progenitor Alleles in Genetic Hybrids and Allopolyploids. Methods in Enzymology, 2005, 395, 554-569.	1.0	4
78	Plant Nuclear RNA Polymerase IV Mediates siRNA and DNA Methylation-Dependent Heterochromatin Formation. Cell, 2005, 120, 613-622.	28.9	602
79	Transgene-Induced RNA Interference as a Tool for Plant Functional Genomics. Methods in Enzymology, 2005, 392, 1-24.	1.0	78
80	Evidence for Nucleolus Organizer Regions as the Units of Regulation in Nucleolar Dominance in Arabidopsis thaliana Interecotype Hybrids. Genetics, 2004, 167, 931-939.	2.9	27
81	Chromatin Turn Ons and Turn Offs of Ribosomal RNA Genes. Cell Cycle, 2004, 3, 878-881.	2.6	56
82	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
83	Chromosomal locus rearrangements are a rapid response to formation of the allotetraploid Arabidopsis suecica genome. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 18240-18245.	7.1	251
84	A Concerted DNA Methylation/Histone Methylation Switch Regulates rRNA Gene Dosage Control and Nucleolar Dominance. Molecular Cell, 2004, 13, 599-609.	9.7	336
85	Chromatin turn ons and turn offs of ribosomal RNA genes. Cell Cycle, 2004, 3, 880-3.	2.6	28
86	Transgene-induced RNA interference: a strategy for overcoming gene redundancy in polyploids to generate loss-of-function mutations. Plant Journal, 2003, 36, 114-121.	5.7	99
87	Epigenetic silencing of RNA polymerase I transcription. Nature Reviews Molecular Cell Biology, 2003, 4, 641-649.	37.0	270
88	Natural variation in nucleolar dominance reveals the relationship between nucleolus organizer chromatin topology and rRNA gene transcription in <i>Arabidopsis</i> . Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 11418-11423.	7.1	85
89	Purification and Transcriptional Analysis of RNA Polymerase I Holoenzymes from Broccoli (Brassica) Tj ETQq1 1 C).784314 r 1.0	gBŢ /Overlo
90	Xenopus Ribosomal RNA Gene Intergenic Spacer Elements Conferring Transcriptional Enhancement and Nucleolar Dominance-like Competition in Oocytes. Journal of Biological Chemistry, 2002, 277, 31577-31584.	3.4	38

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91	Transcription and Tyranny in the Nucleolus: The Organization, Activation, Dominance and Repression of Ribosomal RNA Genes The Arabidopsis Book, 2002, 1, e0083.	0.5	16
92	Analysis of histone acetyltransferase and histone deacetylase families of Arabidopsis thaliana suggests functional diversification of chromatin modification among multicellular eukaryotes. Nucleic Acids Research, 2002, 30, 5036-5055.	14.5	672
93	Uniting the paths to gene silencing. Nature Genetics, 2002, 32, 340-341.	21.4	10
94	RNA polymerase I holoenzyme-promoter complexes include an associated CK2-like protein kinase. Plant Molecular Biology, 2001, 47, 449-460.	3.9	19
95	Genomic change and gene silencing in polyploids. Trends in Genetics, 2001, 17, 675-677.	6.7	147
96	The epigenetics of nucleolar dominance. Trends in Genetics, 2000, 16, 495-500.	6.7	172
97	Nucleolar dominance: uniparental gene silencing on a multi-megabase scale in genetic hybrids. Plant Molecular Biology, 2000, 43, 163-177.	3.9	104
98	RNA Polymerase I Holoenzyme-Promoter Interactions. Journal of Biological Chemistry, 2000, 275, 37173-37180.	3.4	19
99	Nucleolar dominance and silencing of transcription. Trends in Plant Science, 1999, 4, 478-483.	8.8	124
100	Histone Acetyltransferase and Protein Kinase Activities Copurify with a Putative <i>Xenopus</i> RNA Polymerase I Holoenzyme Self-Sufficient for Promoter-Dependent Transcription. Molecular and Cellular Biology, 1999, 19, 796-806.	2.3	38
101	RNA Polymerase I Transcription in a Brassica Interspecific Hybrid and Its Progenitors: Tests of Transcription Factor Involvement in Nucleolar Dominance. Genetics, 1999, 152, 451-460.	2.9	45
102	Chromosome Topologyâ€"Organizing Genes by Loops and Bounds. Plant Cell, 1998, 10, 1229-1232.	6.6	7
103	Chromosome Topology-Organizing Genes by Loops and Bounds. Plant Cell, 1998, 10, 1229.	6.6	3
104	Cytokinin Induction of RNA Polymerase I Transcription in Arabidopsis thaliana. Journal of Biological Chemistry, 1997, 272, 6799-6804.	3.4	63
105	Epigenetic silencing of RNA polymerase I transcription: a role for DNA methylation and histone modification in nucleolar dominance. Genes and Development, 1997, 11, 2124-2136.	5.9	342
106	Transcriptional analysis of nucleolar dominance in polyploid plants: Biased expression/silencing of progenitor rRNA genes is developmentally regulated in <i>Brassica</i> . Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 3442-3447.	7.1	246
107	RFLP and physical mapping with an rDNAâ€specific endonuclease reveals that nucleolus organizer regions of <i>Arabidopsis thaliana</i> adjoin the telomeres on chromosomes 2 and 4. Plant Journal, 1996, 9, 259-272.	5.7	160
108	Two-dimensional RFLP analyses reveal megabase-sized clusters of rRNA gene variants in Arabidopsis thaliana, suggesting local spreading of variants as the mode for gene homogenization during concerted evolution. Plant Journal, 1996, 9, 273-282.	5.7	136

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109	Species-specificity of rRNA gene transcription in plants manifested as a switch in RNA polymerase specificity. Nucleic Acids Research, 1996, 24, 4725-4732.	14.5	35
110	The minimal ribosomal RNA gene promoter of Arabidopsis thaliana includes a critical element at the transcription initiation site. Plant Journal, 1995, 8, 683-692.	5.7	63
111	Use of RFLPs larger than 100 kbp to map the position and internal organization of the nucleolus organizer region on chromosome 2 in Arabidopsis thaliana. Plant Journal, 1995, 7, 273-286.	5.7	58
112	The RNA polymerase I transcription factor UBF is a sequence-tolerant HMG-box protein that can recognize structured nucleic acids. Nucleic Acids Research, 1994, 22, 2651-2657.	14.5	101
113	Molecular mechanisms governing species-specific transcription of ribosomal RNA. Cell, 1989, 59, 489-497.	28.9	153
114	Molecular characterization of the patatin multigene family of potato. Gene, 1988, 62, 27-44.	2.2	129
115	Sequence of two apparent pseudogenes of the major potato tuber protein, patatin. Nucleic Acids Research, 1986, 14, 5564-5566.	14.5	37
116	Heat Shock Proteins in Tobacco Cell Suspension during Growth Cycle. Plant Physiology, 1984, 75, 639-644.	4.8	43
117	Maintenance of Normal or Supranormal Protein Accumulation in Developing Ovules of Glycine max L. Merr. during PEG-Induced Water Stress. Plant Physiology, 1984, 75, 176-180.	4.8	9
118	Patterns of fatty acid deposition during development of soybean seed. Phytochemistry, 1984, 23, 2183-2186.	2.9	18
119	Nucleolar Dominance and rRNA Gene Dosage Control: A Paradigm for Transcriptional Regulation via an Epigenetic On/Off Switch., 0,, 201-222.		6