# Craig S Pikaard

List of Publications by Year
in descending order



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|---|---|---|---|
| 119 papers | 14,826 citations | 25423 59 h-index | 23173 116 g-index |
| 163 all docs | 163 docs citations | 163 times ranked | 11959 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, . | 2.8 | 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, . | 3.3 | 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. | 1.7 | 6 |
| 4 | Structure and RNA template requirements of <i>Arabidopsis</i> RNA-DEPENDENT RNA POLYMERASE 2. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 3.3 | 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. | 4.5 | 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. | 6.5 | 14 |
| 7 | The Pol IV largest subunit CTD quantitatively affects siRNA levels guiding RNA-directed DNA methylation. Nucleic Acids Research, 2019, 47, 9024-9036. | 6.5 | 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. | 0.4 | 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. | 2.0 | 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. | 3.3 | 45 |
| 11 | Catalytic properties of RNA polymerases IV and V: accuracy, nucleotide incorporation and rNTP/dNTP discrimination. Nucleic Acids Research, 2017, 45, 11315-11326. | 6.5 | 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. | 2.7 | 25 |
| 13 | Functional Dissection of the Pol V Largest Subunit CTD in RNA-Directed DNA Methylation. Cell Reports, 2017, 19, 2796-2808. | 2.9 | 24 |
| 14 | The RNAs of RNA-directed DNA methylation. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2017, 1860, 140-148. | 0.9 | 126 |
| 15 | Targeting Argonaute to chromatin. Genes and Development, 2016, 30, 2649-2650. | 2.7 | 4 |
| 16 | 50Âyears of Arabidopsis research: highlights and future directions. New Phytologist, 2016, 209, 921-944. | 3.5 | 186 |
| 17 | Analysis of rRNA Gene Methylation in Arabidopsis thaliana by CHEF-Conventional 2D Gel Electrophoresis. Methods in Molecular Biology, 2016, 1455, 183-202. | 0.4 | 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. | 2.9 | 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. | 3.3 | 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. | 2.7 | 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. | 2.8 | 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. | 6.5 | 21 |
| 23 | Epigenetic Regulation in Plants. Cold Spring Harbor Perspectives in Biology, 2014, 6, a019315-a019315. | 2.3 | 310 |
| 24 | Functional Diversification of Maize RNA Polymerase IV and V Subtypes via Alternative Catalytic Subunits. Cell Reports, 2014, 9, 378-390. | 2.9 | 71 |
| 25 | A Two-Step Process for Epigenetic Inheritance in Arabidopsis. Molecular Cell, 2014, 54, 30-42. | 4.5 | 96 |
| 26 | Plant Multisubunit RNA Polymerases IV and V. Nucleic Acids and Molecular Biology, 2014, , 289-308. | 0.2 | 8 |
| 27 | Nuclear Biology: Whatâ€™s Been Most Surprising?. Cell, 2013, 152, 1207-1208. | 13.5 | 3 |
| 28 | Methylating the DNA of the Most Repressed: Special Access Required. Molecular Cell, 2013, 49, 1021-1022. | 4.5 | 9 |
| 29 | Subnuclear partitioning of rRNA genes between the nucleolus and nucleoplasm reflects alternative epiallelic states. Genes and Development, 2013, 27, 1545-1550. | 2.7 | 115 |
| 30 | Intersection of Small RNA Pathways in Arabidopsis thaliana Sub-Nuclear Domains. PLoS ONE, 2013, 8, e65652. | 1.1 | 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. | 2.0 | 73 |
| 32 | Histone methyltransferases regulating rRNA gene dose and dosage control in <i>Arabidopsis</i>. Genes and Development, 2012, 26, 945-957. | 2.7 | 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. | 2.7 | 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. | 4.5 | 180 |
| 35 | Functional Consequences of Subunit Diversity in RNA Polymerases II and V. Cell Reports, 2012, 1, 208-214. | 2.9 | 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. | 16.1 | 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. | 3.3 | 80 |
| 38 | An Atypical Epigenetic Mechanism Affects Uniparental Expression of Pol IV-Dependent siRNAs. PLoS ONE, 2011, 6, e25756. | 1.1 | 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. | 2.6 | 106 |
| 41 | An RNA polymerase II- and AGO4-associated protein acts in RNA-directed DNA methylation. Nature, 2010, 465, 106-109. | 13.7 | 228 |
| 42 | Arabidopsis Histone Lysine Methyltransferases. Advances in Botanical Research, 2010, 53, 1-22. | 0.5 | 103 |
| 43 | Nucleolin Is Required for DNA Methylation State and the Expression of rRNA Gene Variants in Arabidopsis thaliana. PLoS Genetics, 2010, 6, e1001225. | 1.5 | 121 |
| 44 | Extra views on RNA-dependent DNA methylation and MBD6-dependent heterochromatin formation in nucleolar dominance. Nucleus, 2010, 1, 254-259. | 0.6 | 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. | 2.7 | 143 |
| 46 | Extra views on RNA-dependent DNA methylation and MBD6-dependent heterochromatin formation in nucleolar dominance. Nucleus, 2010, 1, 254-259. | 0.6 | 20 |
| 47 | RNA-Silencing Enzymes Pol IV and Pol V in Maize: More than one Flavor?. PLoS Genetics, 2009, 5, e1000736. | 1.5 | 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. | 1.1 | 51 |
| 49 | PHYTOCHROME B and HISTONE DEACETYLASE 6 Control Light-Induced Chromatin Compaction in Arabidopsis thaliana. PLoS Genetics, 2009, 5, e1000638. | 1.5 | 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. | 3.9 | 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. | 2.7 | 126 |
| 52 | RNA polymerase V transcription guides ARGONAUTE4 to chromatin. Nature Genetics, 2009, 41, 630-634. | 9.4 | 410 |
| 53 | An Effector of RNA-Directed DNA Methylation in Arabidopsis Is an ARGONAUTE 4- and RNA-Binding Protein. Cell, 2009, 137, 498-508. | 13.5 | 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. | 4.5 | 225 |

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| 55 | Heterochromatic siRNAs and DDM1 Independently Silence Aberrant 5S rDNA Transcripts in Arabidopsis. PLoS ONE, 2009, 4, e5932. | 1.1 | 42 |
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| 57 | Multimegabase Silencing in Nucleolar Dominance Involves siRNA-Directed DNA Methylation and Specific Methylcytosine-Binding Proteins. Molecular Cell, 2008, 32, 673-684. | 4.5 | 144 |
| 58 | Roles of RNA polymerase IV in gene silencing. Trends in Plant Science, 2008, 13, 390-397. | 4.3 | 157 |
| 59 | siRNA and miRNA processing: new functions for Cajal bodies. Current Opinion in Genetics and Development, 2008, 18, 197-203. | 1.5 | 103 |
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| 62 | VIM1, a methylcytosine-binding protein required for centromeric heterochromatinization. Genes and Development, 2007, 21, 267-277. | 2.7 | 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. | 3.1 | 251 |
| 64 | Postembryonic Establishment of Megabase-Scale Gene Silencing in Nucleolar Dominance. PLoS ONE, 2007, 2, e1157. | 1.1 | 69 |
| 65 | RNA Polymerase I: A Multifunctional Molecular Machine. Cell, 2007, 131, 1224-1225. | 13.5 | 18 |
| 66 | Locus-Specific Ribosomal RNA Gene Silencing in Nucleolar Dominance. PLoS ONE, 2007, 2, e815. | 1.1 | 24 |
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| 68 | Heterochromatin: condense or excise. Nature Cell Biology, 2007, 9, 19-20. | 4.6 | 12 |
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| 74 | Gateway-compatible vectors for plant functional genomics and proteomics. Plant Journal, 2006, 45, 616-629. | 2.8 | 1,658 |
| 75 | Erasure of histone acetylation by Arabidopsis HDA6 mediates large-scale gene silencing in nucleolar dominance. Genes and Development, 2006, 20, 1283-1293. | 2.7 | 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. | 1.6 | 116 |
| 77 | Detecting Differential Expression of Parental or Progenitor Alleles in Genetic Hybrids and Allopolyploids. Methods in Enzymology, 2005, 395, 554-569. | 0.4 | 4 |
| 78 | Plant Nuclear RNA Polymerase IV Mediates siRNA and DNA Methylation-Dependent Heterochromatin Formation. Cell, 2005, 120, 613-622. | 13.5 | 602 |
| 79 | Transgene-Induced RNA Interference as a Tool for Plant Functional Genomics. Methods in Enzymology, 2005, 392, 1-24. | 0.4 | 78 |
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| 81 | Chromatin Turn Ons and Turn Offs of Ribosomal RNA Genes. Cell Cycle, 2004, 3, 878-881. | 1.3 | 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. | 3.1 | 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. | 3.3 | 251 |
| 84 | A Concerted DNA Methylation/Histone Methylation Switch Regulates rRNA Gene Dosage Control and Nucleolar Dominance. Molecular Cell, 2004, 13, 599-609. | 4.5 | 336 |
| 85 | Chromatin turn ons and turn offs of ribosomal RNA genes. Cell Cycle, 2004, 3, 880-3. | 1.3 | 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. | 2.8 | 99 |
| 87 | Epigenetic silencing of RNA polymerase I transcription. Nature Reviews Molecular Cell Biology, 2003, 4, 641-649. | 16.1 | 270 |
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| 89 | Purification and Transcriptional Analysis of RNA Polymerase I Holoenzymes from Broccoli (Brassica) Tj ETQq1 1 0.784314 rgBT /Overlo | 0.4 | 4 |
| 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. | 1.6 | 38 |

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| 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. | 1.2 | 45 |
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| 105 | Epigenetic silencing of RNA polymerase I transcription: a role for DNA methylation and histone modification in nucleolarâ€‰dominance. Genes and Development, 1997, 11, 2124-2136. | 2.7 | 342 |
| 106 | Transcriptional analysis of nucleolar dominance in polyploid plants: Biased expression/silencing of progenitor rRNA genes is developmentally regulated in Brassica. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 3442-3447. | 3.3 | 246 |
| 107 | RFLP and physical mapping with an rDNA-specific endonuclease reveals that nucleolus organizer regions of Arabidopsis thaliana adjoin the telomeres on chromosomes 2 and 4. Plant Journal, 1996, 9, 259-272. | 2.8 | 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. | 2.8 | 136 |

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| 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. | 2.8 | 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. | 2.8 | 58 |
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| 114 | Molecular characterization of the patatin multigene family of potato. Gene, 1988, 62, 27-44. | 1.0 | 129 |
| 115 | Sequence of two apparent pseudogenes of the major potato tuber protein, patatin. Nucleic Acids Research, 1986, 14, 5564-5566. | 6.5 | 37 |
| 116 | Heat Shock Proteins in Tobacco Cell Suspension during Growth Cycle. Plant Physiology, 1984, 75, 639-644. | 2.3 | 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. | 2.3 | 9 |
| 118 | Patterns of fatty acid deposition during development of soybean seed. Phytochemistry, 1984, 23, 2183-2186. | 1.4 | 18 |
| 119 | Nucleolar Dominance and rRNA Gene Dosage Control: A Paradigm for Transcriptional Regulation via an Epigenetic On/Off Switch. , 0, , 201-222. | | 6 |