

# Claudia Kähler

## List of Publications by Year in descending order

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114  
papers

9,420  
citations

31976

53  
h-index

45317

90  
g-index

138  
all docs

138  
docs citations

138  
times ranked

6654  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Polycomb-group protein MEDEA regulates seed development by controlling expression of the MADS-box gene PHERES1. <i>Genes and Development</i> , 2003, 17, 1540-1553.	5.9	390
2	Arabidopsis MS11 is a component of the MEA/FIE Polycomb group complex and required for seed development. <i>EMBO Journal</i> , 2003, 22, 4804-4814.	7.8	379
3	HLM1, an Essential Signaling Component in the Hypersensitive Response, Is a Member of the Cyclic Nucleotide-Gated Channel Ion Channel Family[W]. <i>Plant Cell</i> , 2003, 15, 365-379.	6.6	329
4	The Arabidopsis thaliana MEDEA Polycomb group protein controls expression of PHERES1 by parental imprinting. <i>Nature Genetics</i> , 2005, 37, 28-30.	21.4	251
5	Different Polycomb group complexes regulate common target genes in Arabidopsis. <i>EMBO Reports</i> , 2006, 7, 947-952.	4.5	242
6	High-Resolution Analysis of Parent-of-Origin Allelic Expression in the Arabidopsis Endosperm. <i>PLoS Genetics</i> , 2011, 7, e1002126.	3.5	237
7	The impact of the triploid block on the origin and evolution of polyploid plants. <i>Trends in Genetics</i> , 2010, 26, 142-148.	6.7	225
8	Polycomb-group proteins repress the floral activator AGL19 in the FLC-independent vernalization pathway. <i>Genes and Development</i> , 2006, 20, 1667-1678.	5.9	222
9	Epigenetic Mechanisms Underlying Genomic Imprinting in Plants. <i>Annual Review of Plant Biology</i> , 2012, 63, 331-352.	18.7	196
10	Endosperm cellularization defines an important developmental transition for embryo development. <i>Development (Cambridge)</i> , 2012, 139, 2031-2039.	2.5	191
11	Silencing in sperm cells is directed by RNA movement from the surrounding nurse cell. <i>Nature Plants</i> , 2016, 2, 16030.	9.3	191
12	Characterisation of a novel gene family of putative cyclic nucleotide- and calmodulin-regulated ion channels in Arabidopsis thaliana. <i>Plant Journal</i> , 1999, 18, 97-104.	5.7	176
13	H3K27me3 Profiling of the Endosperm Implies Exclusion of Polycomb Group Protein Targeting by DNA Methylation. <i>PLoS Genetics</i> , 2010, 6, e1001152.	3.5	174
14	Nuclear export of proteins in plants: AtXPO1 is the export receptor for leucine-rich nuclear export signals in Arabidopsis thaliana. <i>Plant Journal</i> , 1999, 20, 695-705.	5.7	165
15	Unreduced gamete formation in plants: mechanisms and prospects. <i>Journal of Experimental Botany</i> , 2011, 62, 1659-1668.	4.8	159
16	Auxin production in the endosperm drives seed coat development in Arabidopsis. <i>ELife</i> , 2016, 5, .	6.0	158
17	Programming of gene expression by Polycomb group proteins. <i>Trends in Cell Biology</i> , 2008, 18, 236-243.	7.9	156
18	The CHD3 Chromatin Remodeler PICKLE and Polycomb Group Proteins Antagonistically Regulate Meristem Activity in the Arabidopsis Root. <i>Plant Cell</i> , 2011, 23, 1047-1060.	6.6	150

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19	Embryo and endosperm, partners in seed development. <i>Current Opinion in Plant Biology</i> , 2014, 17, 64-69.	7.1	143
20	Auxin production couples endosperm development to fertilization. <i>Nature Plants</i> , 2015, 1, 15184.	9.3	143
21	Interaction of the Arabidopsis Polycomb group proteins FIE and MEA mediates their common phenotypes. <i>Current Biology</i> , 2000, 10, 1535-1538.	3.9	142
22	Imprinting of the Polycomb Group Gene MEDEA Serves as a Ploidy Sensor in Arabidopsis. <i>PLoS Genetics</i> , 2009, 5, e1000663.	3.5	141
23	CHD3 Proteins and Polycomb Group Proteins Antagonistically Determine Cell Identity in Arabidopsis. <i>PLoS Genetics</i> , 2009, 5, e1000605.	3.5	141
24	Mechanism of <i>PHERES1</i> imprinting in <i>Arabidopsis</i> . <i>Journal of Cell Science</i> , 2008, 121, 906-912.	2.0	138
25	Keeping the gate closed: functions of the polycomb repressive complex <i>PRC2</i> in development. <i>Plant Journal</i> , 2015, 83, 121-132.	5.7	133
26	Characterisation of calmodulin binding to cyclic nucleotide-gated ion channels from <i>Arabidopsis thaliana</i> . <i>FEBS Letters</i> , 2000, 471, 133-136.	2.8	127
27	Genomic imprinting and seed development: endosperm formation with and without sex. <i>Current Opinion in Plant Biology</i> , 2001, 4, 21-27.	7.1	127
28	An Imprinted Gene Underlies Postzygotic Reproductive Isolation in <i>Arabidopsis thaliana</i> . <i>Developmental Cell</i> , 2013, 26, 525-535.	7.0	127
29	Transposon-derived small RNAs triggered by miR845 mediate genome dosage response in Arabidopsis. <i>Nature Genetics</i> , 2018, 50, 186-192.	21.4	126
30	Paternal easiRNAs regulate parental genome dosage in Arabidopsis. <i>Nature Genetics</i> , 2018, 50, 193-198.	21.4	125
31	Parental epigenetic asymmetry of <i>PRC2</i> -mediated histone modifications in the <i>Arabidopsis</i> endosperm. <i>EMBO Journal</i> , 2016, 35, 1298-1311.	7.8	124
32	Auxin: a molecular trigger of seed development. <i>Genes and Development</i> , 2018, 32, 479-490.	5.9	124
33	The Chromodomain of LIKE HETEROCHROMATIN PROTEIN 1 Is Essential for H3K27me3 Binding and Function during Arabidopsis Development. <i>PLoS ONE</i> , 2009, 4, e5335.	2.5	120
34	Transcriptional Programs of Early Reproductive Stages in Arabidopsis. <i>Plant Physiology</i> , 2004, 135, 1765-1775.	4.8	119
35	Endosperm-based postzygotic hybridization barriers: developmental mechanisms and evolutionary drivers. <i>Molecular Ecology</i> , 2016, 25, 2620-2629.	3.9	114
36	Genomic imprinting in plants—revisiting existing models. <i>Genes and Development</i> , 2020, 34, 24-36.	5.9	114

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37	age Mutants of Arabidopsis Exhibit Altered Auxin-Regulated Gene Expression. <i>Plant Cell</i> , 1998, 10, 1649-1662.	6.6	113
38	Epigenetic mechanisms governing seed development in plants. <i>EMBO Reports</i> , 2006, 7, 1223-1227.	4.5	103
39	Endosperm-based hybridization barriers explain the pattern of gene flow between <i>Arabidopsis lyrata</i> and <i>Arabidopsis arenosa</i> in Central Europe. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E1027-E1035.	7.1	103
40	Polycomb group proteins are required to couple seed coat initiation to fertilization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 20826-20831.	7.1	101
41	Paternally expressed imprinted genes establish postzygotic hybridization barriers in <i>Arabidopsis thaliana</i> . <i>ELife</i> , 2015, 4, .	6.0	101
42	Non-reciprocal Interspecies Hybridization Barriers in the <i>Capsella</i> Genus Are Established in the Endosperm. <i>PLoS Genetics</i> , 2015, 11, e1005295.	3.5	88
43	Rapid Evolution of Genomic Imprinting in Two Species of the Brassicaceae. <i>Plant Cell</i> , 2016, 28, 1815-1827.	6.6	84
44	Regulation of cell identity by plant Polycomb and trithorax group proteins. <i>Current Opinion in Genetics and Development</i> , 2010, 20, 541-547.	3.3	83
45	Paternally expressed imprinted genes associate with hybridization barriers in <i>Capsella</i> . <i>Nature Plants</i> , 2018, 4, 352-357.	9.3	81
46	H3K36ac Is an Evolutionary Conserved Plant Histone Modification That Marks Active Genes. <i>Plant Physiology</i> , 2016, 170, 1566-1577.	4.8	77
47	Mechanisms and evolution of genomic imprinting in plants. <i>Heredity</i> , 2010, 105, 57-63.	2.6	73
48	The MADS-box transcription factor PHERES1 controls imprinting in the endosperm by binding to domesticated transposons. <i>ELife</i> , 2019, 8, .	6.0	73
49	Auxin regulates endosperm cellularization in <i>Arabidopsis</i> . <i>Genes and Development</i> , 2019, 33, 466-476.	5.9	68
50	Evolution, function, and regulation of genomic imprinting in plant seed development. <i>Journal of Experimental Botany</i> , 2012, 63, 4713-4722.	4.8	66
51	H2A deubiquitinases UBP12/13 are part of the <i>Arabidopsis</i> polycomb group protein system. <i>Nature Plants</i> , 2016, 2, 16126.	9.3	66
52	Epigenetic inheritance of expression states in plant development: the role of Polycomb group proteins. <i>Current Opinion in Cell Biology</i> , 2002, 14, 773-779.	5.4	61
53	Control of PHERES1 Imprinting in <i>Arabidopsis</i> by Direct Tandem Repeats. <i>Molecular Plant</i> , 2009, 2, 654-660.	8.3	61
54	Ectopic application of the repressive histone modification H3K9me2 establishes post-zygotic reproductive isolation in <i>Arabidopsis thaliana</i> . <i>Genes and Development</i> , 2017, 31, 1272-1287.	5.9	61

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55	Arabidopsis SWC4 Binds DNA and Recruits the SWR1 Complex to Modulate Histone H2A.Z Deposition at Key Regulatory Genes. <i>Molecular Plant</i> , 2018, 11, 815-832.	8.3	60
56	Characterization of two members (ACS1 and ACS3) of the 1-aminocyclopropane-1-carboxylate synthase gene family of <i>Arabidopsis thaliana</i> . <i>Gene</i> , 1995, 167, 17-24.	2.2	59
57	Genetic Interaction of an Origin Recognition Complex Subunit and the Polycomb Group Gene MEDEA during Seed Development[W]. <i>Plant Cell</i> , 2004, 16, 1035-1046.	6.6	58
58	Signalling events regulating seed coat development. <i>Biochemical Society Transactions</i> , 2014, 42, 358-363.	3.4	57
59	Epigenetic processes in flowering plant reproduction. <i>Journal of Experimental Botany</i> , 2017, 68, erw486.	4.8	57
60	Increased Maternal Genome Dosage Bypasses the Requirement of the FIS Polycomb Repressive Complex 2 in <i>Arabidopsis</i> Seed Development. <i>PLoS Genetics</i> , 2013, 9, e1003163.	3.5	56
61	Applying the INTACT method to purify endosperm nuclei and to generate parental-specific epigenome profiles. <i>Nature Protocols</i> , 2017, 12, 238-254.	12.0	56
62	BRR2a Affects Flowering Time via FLC Splicing. <i>PLoS Genetics</i> , 2016, 12, e1005924.	3.5	51
63	Role of small RNAs in epigenetic reprogramming during plant sexual reproduction. <i>Current Opinion in Plant Biology</i> , 2017, 36, 22-28.	7.1	51
64	Hypomethylated Pollen Bypasses the Interploidy Hybridization Barrier in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2014, 26, 3556-3568.	6.6	49
65	Epigenetic mechanisms of postzygotic reproductive isolation in plants. <i>Current Opinion in Plant Biology</i> , 2015, 23, 39-44.	7.1	49
66	Identification of imprinted genes subject to parent-of-origin specific expression in <i>Arabidopsis thaliana</i> seeds. <i>BMC Plant Biology</i> , 2011, 11, 113.	3.6	46
67	Polymerase IV Plays a Crucial Role in Pollen Development in <i>Capsella</i> . <i>Plant Cell</i> , 2020, 32, 950-966.	6.6	46
68	Tearing down barriers: understanding the molecular mechanisms of interploidy hybridizations. <i>Journal of Experimental Botany</i> , 2012, 63, 6059-6067.	4.8	44
69	Polycomb group proteins function in the female gametophyte to determine seed development in plants. <i>Development (Cambridge)</i> , 2007, 134, 3639-3648.	2.5	43
70	Sequestration of a Transposon-Derived siRNA by a Target Mimic Imprinted Gene Induces Postzygotic Reproductive Isolation in <i>Arabidopsis</i> . <i>Developmental Cell</i> , 2018, 46, 696-705.e4.	7.0	40
71	Epigenetic signatures associated with imprinted paternally expressed genes in the <i>Arabidopsis</i> endosperm. <i>Genome Biology</i> , 2019, 20, 41.	8.8	40
72	Role of H1 and DNA methylation in selective regulation of transposable elements during heat stress. <i>New Phytologist</i> , 2021, 229, 2238-2250.	7.3	40

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73	Plant Chromatin Immunoprecipitation. <i>Methods in Molecular Biology</i> , 2010, 655, 401-411.	0.9	37
74	Organelles maintain spindle position in plant meiosis. <i>Nature Communications</i> , 2015, 6, 6492.	12.8	37
75	Intrachromosomal excision of a hybrid Ds element induces large genomic deletions in Arabidopsis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 2969-2974.	7.1	35
76	Removal of H2Aub1 by ubiquitin-specific proteases 12 and 13 is required for stable Polycomb-mediated gene repression in Arabidopsis. <i>Genome Biology</i> , 2020, 21, 144.	8.8	34
77	Mobility connects: transposable elements wire new transcriptional networks by transferring transcription factor binding motifs. <i>Biochemical Society Transactions</i> , 2020, 48, 1005-1017.	3.4	33
78	Bridging the generation gap: communication between maternal sporophyte, female gametophyte and fertilization products. <i>Current Opinion in Plant Biology</i> , 2016, 29, 16-20.	7.1	28
79	Postzygotic reproductive isolation established in the endosperm: mechanisms, drivers and relevance. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200118.	4.0	28
80	Genetic basis and timing of a major mating system shift in <i>Capsella</i> . <i>New Phytologist</i> , 2019, 224, 505-517.	7.3	23
81	Seed Development and Genomic Imprinting in Plants. , 2005, 38, 237-262.		22
82	Endosperm-specific transcriptome analysis by applying the INTACT system. <i>Plant Reproduction</i> , 2019, 32, 55-61.	2.2	22
83	INT-Hi-C reveals distinct chromatin architecture in endosperm and leaf tissues of <i>Arabidopsis</i> . <i>Nucleic Acids Research</i> , 2021, 49, 4371-4385.	14.5	22
84	Intercellular communication in <i>Arabidopsis thaliana</i> pollen discovered via AHG3 transcript movement from the vegetative cell to sperm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 13378-13383.	7.1	21
85	Epigenetic mechanisms in the endosperm and their consequences for the evolution of flowering plants. <i>Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms</i> , 2011, 1809, 438-443.	1.9	20
86	H3K23me1 is an evolutionarily conserved histone modification associated with <i>CG DNA</i> methylation in Arabidopsis. <i>Plant Journal</i> , 2017, 90, 293-303.	5.7	19
87	SYBR Green-activated sorting of Arabidopsis pollen nuclei based on different DNA/RNA content. <i>Plant Reproduction</i> , 2015, 28, 61-72.	2.2	18
88	Plant epigenomics—deciphering the mechanisms of epigenetic inheritance and plasticity in plants. <i>Genome Biology</i> , 2017, 18, 132.	8.8	18
89	Epigenetics: The Flowers That Come In From The Cold. <i>Current Biology</i> , 2002, 12, R129-R131.	3.9	17
90	Hybrid seed incompatibility in <i>Capsella</i> is connected to chromatin condensation defects in the endosperm. <i>PLoS Genetics</i> , 2021, 17, e1009370.	3.5	17

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91	The miRNome function transitions from regulating developmental genes to transposable elements during pollen maturation. <i>Plant Cell</i> , 2022, 34, 784-801.	6.6	17
92	Evolution and function of epigenetic processes in the endosperm. <i>Frontiers in Plant Science</i> , 2015, 6, 130.	3.6	16
93	Bypassing reproductive barriers in hybrid seeds using chemically induced epimutagenesis. <i>Plant Cell</i> , 2022, 34, 989-1001.	6.6	16
94	Transgenerational phenotype aggravation in <i>CAF1</i> mutants reveals parent-of-origin specific epigenetic inheritance. <i>New Phytologist</i> , 2018, 220, 908-921.	7.3	15
95	Polycomb Repressive Complex 2 and KRYPTONITE regulate pathogen-induced programmed cell death in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2021, 185, 2003-2021.	4.8	15
96	Transgenerational effect of mutants in the RNA-directed DNA methylation pathway on the triploid block in <i>Arabidopsis</i> . <i>Genome Biology</i> , 2021, 22, 141.	8.8	13
97	Tissue-specific transposon-associated small RNAs in the gymnosperm tree, Norway spruce. <i>BMC Genomics</i> , 2019, 20, 997.	2.8	12
98	Polycomb Repressive Complex 2-mediated histone modification H3K27me3 is associated with embryogenic potential in Norway spruce. <i>Journal of Experimental Botany</i> , 2020, 71, 6366-6378.	4.8	12
99	On the origin of the widespread self-compatible allotetraploid <i>Capsella bursa-pastoris</i> (Brassicaceae). <i>Heredity</i> , 2021, 127, 124-134.	2.6	12
100	Endosperm Evolution by Duplicated and Neofunctionalized Type I MADS-Box Transcription Factors. <i>Molecular Biology and Evolution</i> , 2022, 39, .	8.9	12
101	age Mutants of <i>Arabidopsis</i> Exhibit Altered Auxin-Regulated Gene Expression. <i>Plant Cell</i> , 1998, 10, 1649.	6.6	11
102	Dark-Induced Senescence Causes Localized Changes in DNA Methylation. <i>Plant Physiology</i> , 2020, 182, 949-961.	4.8	11
103	Combinations of maternal-specific repressive epigenetic marks in the endosperm control seed dormancy. <i>ELife</i> , 2021, 10, .	6.0	10
104	Endosperm-Specific Chromatin Profiling by Fluorescence-Activated Nuclei Sorting and Chip-on-Chip. <i>Methods in Molecular Biology</i> , 2014, 1112, 105-115.	0.9	9
105	Bisulphite Sequencing of Plant Genomic DNA. <i>Methods in Molecular Biology</i> , 2010, 655, 433-443.	0.9	8
106	DNA-sequence-specific erasers of epigenetic memory. <i>Nature Genetics</i> , 2016, 48, 591-592.	21.4	8
107	H2A ubiquitination is essential for Polycomb Repressive Complex 1-mediated gene regulation in <i>Marchantia polymorpha</i> . <i>Genome Biology</i> , 2021, 22, 253.	8.8	8
108	Antagonizing Polycomb group-mediated gene repression by chromatin remodelers. <i>Epigenetics</i> , 2010, 5, 20-23.	2.7	6

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109	The meiotic regulator JASON utilizes alternative translation initiation sites to produce differentially localized forms. <i>Journal of Experimental Botany</i> , 2017, 68, 4205-4217.	4.8	6
110	Epigenetic Regulation of Seed Development. , 2007, , 309-311.		0
111	Function of Polycomb group proteins in the transition to flowering in plants. , 0, 2008, .		0
112	Role of the Mi-2 homolog PICKLE in repression of Polycomb group target genes in Arabidopsis. , 0, 2008, .		0
113	Case studies for transcriptional profiling. , 2007, 97, 87-97.		0
114	Kingdom Come. <i>PLoS Genetics</i> , 2020, 16, e1009178.	3.5	0