Claudia Khler

List of Publications by Citations

116 papers	6,839 citations	49 h-index	81 g-index
138 ext. papers	8,398 ext. citations	9.9 avg, IF	6.27 L-index

#	Paper	IF	Citations
116	Arabidopsis MSI1 is a component of the MEA/FIE Polycomb group complex and required for seed development. *EMBO Journal*, **2003**, 22, 4804-14	13	322
115	The Polycomb-group protein MEDEA regulates seed development by controlling expression of the MADS-box gene PHERES1. *Genes and Development*, **2003**, 17, 1540-53	12.6	316
114	HLM1, an essential signaling component in the hypersensitive response, is a member of the cyclic nucleotide-gated channel ion channel family. *Plant Cell*, **2003**, 15, 365-79	11.6	279
113	The Arabidopsis thaliana MEDEA Polycomb group protein controls expression of PHERES1 by parental imprinting. *Nature Genetics*, **2005**, 37, 28-30	36.3	226
112	Different Polycomb group complexes regulate common target genes in Arabidopsis. *EMBO Reports*, **2006**, 7, 947-52	6.5	218
111	High-resolution analysis of parent-of-origin allelic expression in the Arabidopsis Endosperm. *PLoS Genetics*, **2011**, 7, e1002126	6	184
110	Characterisation of a novel gene family of putative cyclic nucleotide- and calmodulin-regulated ion channels in Arabidopsis thaliana. *Plant Journal*, **1999**, 18, 97-104	6.9	157
109	The impact of the triploid block on the origin and evolution of polyploid plants. *Trends in Genetics*, **2010**, 26, 142-8	8.5	150
108	Epigenetic mechanisms underlying genomic imprinting in plants. *Annual Review of Plant Biology*, **2012**, 63, 331-52	30.7	149
107	H3K27me3 profiling of the endosperm implies exclusion of polycomb group protein targeting by DNA methylation. *PLoS Genetics*, **2010**, 6, e1001152	6	147
106	Polycomb-group proteins repress the floral activator AGL19 in the FLC-independent vernalization pathway. *Genes and Development*, **2006**, 20, 1667-78	12.6	146
105	Programming of gene expression by Polycomb group proteins. *Trends in Cell Biology*, **2008**, 18, 236-43	18.3	141
104	Nuclear export of proteins in plants: AtXPO1 is the export receptor for leucine-rich nuclear export signals in Arabidopsis thaliana. *Plant Journal*, **1999**, 20, 695-705	6.9	141
103	Silencing in sperm cells is directed by RNA movement from the surrounding nurse cell. *Nature Plants*, **2016**, 2, 16030	11.5	132
102	Endosperm cellularization defines an important developmental transition for embryo development. *Development (Cambridge)*, **2012**, 139, 2031-9	6.6	132
101	Interaction of the Arabidopsis polycomb group proteins FIE and MEA mediates their common phenotypes. *Current Biology*, **2000**, 10, 1535-8	6.3	125
100	CHD3 proteins and polycomb group proteins antagonistically determine cell identity in Arabidopsis. *PLoS Genetics*, **2009**, 5, e1000605	6	124

99	Mechanism of PHERES1 imprinting in Arabidopsis. *Journal of Cell Science*, **2008**, 121, 906-12	5.3	122
98	The CHD3 chromatin remodeler PICKLE and polycomb group proteins antagonistically regulate meristem activity in the Arabidopsis root. *Plant Cell*, **2011**, 23, 1047-60	11.6	117
97	Unreduced gamete formation in plants: mechanisms and prospects. *Journal of Experimental Botany*, **2011**, 62, 1659-68	7	114
96	Transcriptional programs of early reproductive stages in Arabidopsis. *Plant Physiology*, **2004**, 135, 1765-75	6.6	110
95	Genomic imprinting and seed development: endosperm formation with and without sex. *Current Opinion in Plant Biology*, **2001**, 4, 21-7	9.9	110
94	age Mutants of Arabidopsis exhibit altered auxin-regulated gene expression. *Plant Cell*, **1998**, 10, 1649-62	11.6	108
93	Imprinting of the polycomb group gene MEDEA serves as a ploidy sensor in Arabidopsis. *PLoS Genetics*, **2009**, 5, e1000663	6	105
92	Auxin production in the endosperm drives seed coat development in. *ELife*, **2016**, 5,	8.9	102
91	The chromodomain of LIKE HETEROCHROMATIN PROTEIN 1 is essential for H3K27me3 binding and function during Arabidopsis development. *PLoS ONE*, **2009**, 4, e5335	3.7	99
90	Embryo and endosperm, partners in seed development. *Current Opinion in Plant Biology*, **2014**, 17, 64-9	9.9	95
89	Characterisation of calmodulin binding to cyclic nucleotide-gated ion channels from Arabidopsis thaliana. *FEBS Letters*, **2000**, 471, 133-6	3.8	95
88	Keeping the gate closed: functions of the polycomb repressive complex PRC2 in development. *Plant Journal*, **2015**, 83, 121-32	6.9	93
87	Epigenetic mechanisms governing seed development in plants. *EMBO Reports*, **2006**, 7, 1223-7	6.5	92
86	An imprinted gene underlies postzygotic reproductive isolation in Arabidopsis thaliana. *Developmental Cell*, **2013**, 26, 525-35	10.2	89
85	Transposon-derived small RNAs triggered by miR845 mediate genome dosage response in Arabidopsis. *Nature Genetics*, **2018**, 50, 186-192	36.3	80
84	Auxin production couples endosperm development to fertilization. *Nature Plants*, **2015**, 1, 15184	11.5	79
83	Endosperm-based postzygotic hybridization barriers: developmental mechanisms and evolutionary drivers. *Molecular Ecology*, **2016**, 25, 2620-9	5.7	75
82	Polycomb group proteins are required to couple seed coat initiation to fertilization. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 20826-31	11.5	74

81	Parental epigenetic asymmetry of PRC2-mediated histone modifications in the Arabidopsis endosperm. *EMBO Journal*, **2016**, 35, 1298-311	13	74
80	Paternal easiRNAs regulate parental genome dosage in Arabidopsis. *Nature Genetics*, **2018**, 50, 193-198	36.3	72
79	Auxin: a molecular trigger of seed development. *Genes and Development*, **2018**, 32, 479-490	12.6	68
78	Paternally expressed imprinted genes establish postzygotic hybridization barriers in Arabidopsis thaliana. *ELife*, **2015**, 4,	8.9	68
77	Endosperm-based hybridization barriers explain the pattern of gene flow between Arabidopsis lyrata and Arabidopsis arenosa in Central Europe. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E1027-E1035	11.5	61
76	Mechanisms and evolution of genomic imprinting in plants. *Heredity*, **2010**, 105, 57-63	3.6	57
75	Regulation of cell identity by plant Polycomb and trithorax group proteins. *Current Opinion in Genetics and Development*, **2010**, 20, 541-7	4.9	57
74	Control of PHERES1 imprinting in Arabidopsis by direct tandem repeats. *Molecular Plant*, **2009**, 2, 654-660	4.4	56
73	Epigenetic inheritance of expression states in plant development: the role of Polycomb group proteins. *Current Opinion in Cell Biology*, **2002**, 14, 773-9	9	55
72	Characterization of two members (ACS1 and ACS3) of the 1-aminocyclopropane-1-carboxylate synthase gene family of Arabidopsis thaliana. *Gene*, **1995**, 167, 17-24	3.8	55
71	H3K36ac Is an Evolutionary Conserved Plant Histone Modification That Marks Active Genes. *Plant Physiology*, **2016**, 170, 1566-77	6.6	55
70	Evolution, function, and regulation of genomic imprinting in plant seed development. *Journal of Experimental Botany*, **2012**, 63, 4713-22	7	54
69	Rapid Evolution of Genomic Imprinting in Two Species of the Brassicaceae. *Plant Cell*, **2016**, 28, 1815-27	11.6	53
68	Non-reciprocal Interspecies Hybridization Barriers in the Capsella Genus Are Established in the Endosperm. *PLoS Genetics*, **2015**, 11, e1005295	6	53
67	Genetic interaction of an origin recognition complex subunit and the Polycomb group gene MEDEA during seed development. *Plant Cell*, **2004**, 16, 1035-46	11.6	46
66	Genomic imprinting in plants-revisiting existing models. *Genes and Development*, **2020**, 34, 24-36	12.6	45
65	Increased maternal genome dosage bypasses the requirement of the FIS polycomb repressive complex 2 in Arabidopsis seed development. *PLoS Genetics*, **2013**, 9, e1003163	6	43
64	Epigenetic processes in flowering plant reproduction. *Journal of Experimental Botany*, **2017**, 68, 797-807	7	42

63	Signalling events regulating seed coat development. *Biochemical Society Transactions*, **2014**, 42, 358-63	5.1	42
62	Identification of imprinted genes subject to parent-of-origin specific expression in Arabidopsis thaliana seeds. *BMC Plant Biology*, **2011**, 11, 113	5.3	42
61	Role of small RNAs in epigenetic reprogramming during plant sexual reproduction. *Current Opinion in Plant Biology*, **2017**, 36, 22-28	9.9	39
60	Auxin regulates endosperm cellularization in. *Genes and Development*, **2019**, 33, 466-476	12.6	37
59	Epigenetic mechanisms of postzygotic reproductive isolation in plants. *Current Opinion in Plant Biology*, **2015**, 23, 39-44	9.9	37
58	Applying the INTACT method to purify endosperm nuclei and to generate parental-specific epigenome profiles. *Nature Protocols*, **2017**, 12, 238-254	18.8	36
57	H2A deubiquitinases UBP12/13 are part of the Arabidopsis polycomb group protein system. *Nature Plants*, **2016**, 2, 16126	11.5	36
56	Paternally expressed imprinted genes associate with hybridization barriers in Capsella. *Nature Plants*, **2018**, 4, 352-357	11.5	36
55	BRR2a Affects Flowering Time via FLC Splicing. *PLoS Genetics*, **2016**, 12, e1005924	6	35
54	Intrachromosomal excision of a hybrid Ds element induces large genomic deletions in Arabidopsis. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 2969-74	11.5	34
53	Hypomethylated pollen bypasses the interploidy hybridization barrier in Arabidopsis. *Plant Cell*, **2014**, 26, 3556-68	11.6	33
52	Tearing down barriers: understanding the molecular mechanisms of interploidy hybridizations. *Journal of Experimental Botany*, **2012**, 63, 6059-67	7	33
51	Polycomb group proteins function in the female gametophyte to determine seed development in plants. *Development (Cambridge)*, **2007**, 134, 3639-48	6.6	33
50	Arabidopsis SWC4 Binds DNA and Recruits the SWR1 Complex to Modulate Histone H2A.Z Deposition at Key Regulatory Genes. *Molecular Plant*, **2018**, 11, 815-832	14.4	32
49	The MADS-box transcription factor PHERES1 controls imprinting in the endosperm by binding to domesticated transposons. *ELife*, **2019**, 8,	8.9	30
48	Ectopic application of the repressive histone modification H3K9me2 establishes post-zygotic reproductive isolation in. *Genes and Development*, **2017**, 31, 1272-1287	12.6	29
47	Organelles maintain spindle position in plant meiosis. *Nature Communications*, **2015**, 6, 6492	17.4	26
46	Sequestration of a Transposon-Derived siRNA by a Target Mimic Imprinted Gene Induces Postzygotic Reproductive Isolation in Arabidopsis. *Developmental Cell*, **2018**, 46, 696-705.e4	10.2	26

45	Polymerase IV Plays a Crucial Role in Pollen Development in. *Plant Cell*, **2020**, 32, 950-966	11.6	23
44	Epigenetic signatures associated with imprinted paternally expressed genes in the Arabidopsis endosperm. *Genome Biology*, **2019**, 20, 41	18.3	21
43	Seed development and genomic imprinting in plants. *Progress in Molecular and Subcellular Biology*, **2005**, 38, 237-62	3	21
42	Epigenetic mechanisms in the endosperm and their consequences for the evolution of flowering plants. *Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms*, **2011**, 1809, 438-43	6	19
41	Intercellular communication in Arabidopsis thaliana pollen discovered via AHG3 transcript movement from the vegetative cell to sperm. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 13378-83	11.5	17
40	Plant chromatin immunoprecipitation. *Methods in Molecular Biology*, **2010**, 655, 401-11	1.4	16
39	Bridging the generation gap: communication between maternal sporophyte, female gametophyte and fertilization products. *Current Opinion in Plant Biology*, **2016**, 29, 16-20	9.9	15
38	Epigenetics: the flowers that come in from the cold. *Current Biology*, **2002**, 12, R129-31	6.3	15
37	SYBR Green-activated sorting of Arabidopsis pollen nuclei based on different DNA/RNA content. *Plant Reproduction*, **2015**, 28, 61-72	3.9	14
36	Role of H1 and DNA methylation in selective regulation of transposable elements during heat stress. *New Phytologist*, **2021**, 229, 2238-2250	9.8	14
35	Evolution and function of epigenetic processes in the endosperm. *Frontiers in Plant Science*, **2015**, 6, 1306.2		12
34	Removal of H2Aub1 by ubiquitin-specific proteases 12 and 13 is required for stable Polycomb-mediated gene repression in Arabidopsis. *Genome Biology*, **2020**, 21, 144	18.3	12
33	Endosperm-specific transcriptome analysis by applying the INTACT system. *Plant Reproduction*, **2019**, 32, 55-61	3.9	12
32	Mobility connects: transposable elements wire new transcriptional networks by transferring transcription factor binding motifs. *Biochemical Society Transactions*, **2020**, 48, 1005-1017	5.1	11
31	H3K23me1 is an evolutionarily conserved histone modification associated with CG DNA methylation in Arabidopsis. *Plant Journal*, **2017**, 90, 293-303	6.9	10
30	Transgenerational phenotype aggravation in CAF-1 mutants reveals parent-of-origin specific epigenetic inheritance. *New Phytologist*, **2018**, 220, 908-921	9.8	10
29	Genetic basis and timing of a major mating system shift in Capsella. *New Phytologist*, **2019**, 224, 505-517	9.8	8
28	Bisulphite sequencing of plant genomic DNA. *Methods in Molecular Biology*, **2010**, 655, 433-43	1.4	8

27	Endosperm-specific chromatin profiling by fluorescence-activated nuclei sorting and ChIP-on-chip. *Methods in Molecular Biology*, **2014**, 1112, 105-15	1.4	8
26	Tissue-specific transposon-associated small RNAs in the gymnosperm tree, Norway spruce. *BMC Genomics*, **2019**, 20, 997	4.5	8
25	Postzygotic reproductive isolation established in the endosperm: mechanisms, drivers and relevance. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2021**, 376, 20200118	5.8	6
24	Antagonizing Polycomb group-mediated gene repression by chromatin remodelers. *Epigenetics*, **2010**, 5, 20-3	5.7	5
23	INT-Hi-C reveals distinct chromatin architecture in endosperm and leaf tissues of Arabidopsis. *Nucleic Acids Research*, **2021**, 49, 4371-4385	20.1	5
22	Genetic basis and timing of a major mating system shift in Capsella		4
21	DNA-sequence-specific erasers of epigenetic memory. *Nature Genetics*, **2016**, 48, 591-2	36.3	4
20	Polycomb Repressive Complex 2-mediated histone modification H3K27me3 is associated with embryogenic potential in Norway spruce. *Journal of Experimental Botany*, **2020**, 71, 6366-6378	7	3
19	The meiotic regulator JASON utilizes alternative translation initiation sites to produce differentially localized forms. *Journal of Experimental Botany*, **2017**, 68, 4205-4217	7	2
18	age Mutants of Arabidopsis Exhibit Altered Auxin-Regulated Gene Expression. *Plant Cell*, **1998**, 10, 1649	11.6	2
17	The miRNome function transitions from regulating developmental genes to transposable elements during pollen maturation. *Plant Cell*, **2021**,	11.6	2
16	The role of transposable elements for gene expression in Capsella hybrids and allopolyploids		2
15	Dark-Induced Senescence Causes Localized Changes in DNA Methylation. *Plant Physiology*, **2020**, 182, 949-961	6.6	2
14	Transgenerational effect of mutants in the RNA-directed DNA methylation pathway on the triploid block in Arabidopsis. *Genome Biology*, **2021**, 22, 141	18.3	2
13	Hybrid seed incompatibility in Capsella is connected to chromatin condensation defects in the endosperm. *PLoS Genetics*, **2021**, 17, e1009370	6	2
12	Polycomb Repressive Complex 2 and KRYPTONITE regulate pathogen-induced programmed cell death in Arabidopsis. *Plant Physiology*, **2021**, 185, 2003-2021	6.6	2
11	Combinations of maternal-specific repressive epigenetic marks in the endosperm control seed dormancy. *ELife*, **2021**, 10,	8.9	2
10	H2A ubiquitination is essential for Polycomb Repressive Complex 1-mediated gene regulation in Marchantia polymorpha. *Genome Biology*, **2021**, 22, 253	18.3	2

9	Bypassing reproductive barriers in hybrid seeds using chemically induced epimutagenesis. *Plant Cell* , **2021**,	11.6	1
8	Transgenerational effect of mutants in the RNA-directed DNA methylation pathway on the triploid block		1
7	Epigenetic signatures associated with imprinted paternally-expressed genes in the Arabidopsis endosperm		1
6	The MADS-box transcription factor PHERES1 controls imprinting in the endosperm by binding to domesticated transposons		1
5	Functional role of Polymerase IV during pollen development in Capsella		1
4	On the origin of the widespread self-compatible allotetraploid Capsella bursa-pastoris (Brassicaceae). *Heredity*, **2021**, 127, 124-134	3.6	1
3	H2A ubiquitination is essential for Polycomb Repressive Complex 1-mediated gene regulation in Marchantia polymorpha		1
2	Case studies for transcriptional profiling. *Exs*, **2007**, 97, 87-97		
1	Epigenetic Regulation of Seed Development **2007**, 309-311		