Frederic Berger

List of Publications by Year
in descending order

142 papers	13,580 citations	19608 61 h-index	24915 109 g-index
168 all docs	168 docs citations	168 times ranked	9738 citing authors

#	Article	IF	Citations
1	Insights into Land Plant Evolution Garnered from the Marchantia polymorpha Genome. Cell, 2017, 171, 287-304.e15.	13.5	973
2	Reprogramming of DNA Methylation in Pollen Guides Epigenetic Inheritance via Small RNA. Cell, 2012, 151, 194-205.	13.5	506
3	MINISEED3 (MINI3), a WRKY family gene, and HAIKU2 (IKU2), a leucine-rich repeat (LRR) KINASE gene, are regulators of seed size in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17531-17536.	3.3	476
4	Expression and disruption of the Arabidopsis TOR (target of rapamycin) gene. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6422-6427.	3.3	430
5	Dynamic Analyses of the Expression of the HISTONE::YFP Fusion Protein in Arabidopsis Show That Syncytial Endosperm Is Divided in Mitotic Domains. Plant Cell, 2001, 13, 495-509.	3.1	348
6	Maternal Control of Integument Cell Elongation and Zygotic Control of Endosperm Growth Are Coordinated to Determine Seed Size in Arabidopsis. Plant Cell, 2005, 17, 52-60.	3.1	342
7	Female Control of Male Gamete Delivery during Fertilization in Arabidopsis thaliana. Current Biology, 2003, 13, 432-436.	1.8	267
8	A unified phylogeny-based nomenclature for histone variants. Epigenetics and Chromatin, 2012, 5, 7.	1.8	265
9	Maintenance of DNA Methylation during the Arabidopsis Life Cycle Is Essential for Parental Imprinting. Plant Cell, 2006, 18, 1360-1372.	3.1	264
10	The Histone Variant H2A.W Defines Heterochromatin and Promotes Chromatin Condensation in Arabidopsis. Cell, 2014, 158, 98-109.	13.5	257
11	Distinct Dynamics of HISTONE3 Variants between the Two Fertilization Products in Plants. Current Biology, 2007, 17, 1032-1037.	1.8	252
12	Arabidopsis haiku Mutants Reveal New Controls of Seed Size by Endosperm. Plant Physiology, 2003, 131, 1661-1670.	2.3	250
13	Convergent evolution of genomic imprinting in plants and mammals. Trends in Genetics, 2007, 23, 192-199.	2.9	238
14	Epigenetic reprogramming in plant sexual reproduction. Nature Reviews Genetics, 2014, 15, 613-624.	7.7	234
15	Retinoblastoma and Its Binding Partner MSI1 Control Imprinting in Arabidopsis. PLoS Biology, 2008, 6, e194.	2.6	220
16	Zygotic Resetting of the HISTONE 3 Variant Repertoire Participates in Epigenetic Reprogramming in Arabidopsis. Current Biology, 2010, 20, 2137-2143.	1.8	214
17	DNA Methylation Dynamics during Sexual Reproduction in Arabidopsis thaliana. Current Biology, 2012, 22, 1825-1830.	1.8	214
18	A Novel Class of MYB Factors Controls Sperm-Cell Formation in Plants. Current Biology, 2005, 15, 244-248.	1.8	210

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19	Identification of new members of Fertilisation Independent Seed Polycomb Group pathway involved in the control of seed development in Arabidopsis thaliana. Development (Cambridge), 2004, 131, 2971-2981.	1.2	206
20	Endosperm: the crossroad of seed development. Current Opinion in Plant Biology, 2003, 6, 42-50.	3.5	196
21	Polycomb Group Complexes Self-Regulate Imprinting of the Polycomb Group Gene MEDEA in Arabidopsis. Current Biology, 2006, 16, 486-492.	1.8	194
22	Endosperm: an integrator of seed growth and development. Current Opinion in Plant Biology, 2006, 9, 664-670.	3.5	192
23	The genetic and epigenetic landscape of the <i>Arabidopsis</i> centromeres. Science, 2021, 374, eabi7489.	6.0	188
24	Live-Cell Imaging Reveals the Dynamics of Two Sperm Cells during Double Fertilization in Arabidopsis thaliana. Current Biology, 2011, 21, 497-502.	1.8	187
25	Germline Specification and Function in Plants. Annual Review of Plant Biology, 2011, 62, 461-484.	8.6	186
26	Endosperm development. Current Opinion in Plant Biology, 1999, 2, 28-32.	3.5	167
27	Plant formin AtFH5 is an evolutionarily conserved actin nucleator involved in cytokinesis. Nature Cell Biology, 2005, 7, 374-380.	4.6	167
28	Double fertilization â€“ caught in the act. Trends in Plant Science, 2008, 13, 437-443.	4.3	166
29	Maternal Control of Male-Gamete Delivery in<i>Arabidopsis</i>Involves a Putative GPI-Anchored Protein Encoded by the<i>LORELEI</i>Gene. Plant Cell, 2008, 20, 3038-3049.	3.1	166
30	Chromatin Organization in Early Land Plants Reveals an Ancestral Association between H3K27me3, Transposons, and Constitutive Heterochromatin. Current Biology, 2020, 30, 573-588.e7.	1.8	160
31	Targeted reprogramming of H3K27me3 resets epigenetic memory in plant paternal chromatin. Nature Cell Biology, 2020, 22, 621-629.	4.6	149
32	DNA replicationâ€“coupled histone modification maintains Polycomb gene silencing in plants. Science, 2017, 357, 1146-1149.	6.0	144
33	Polycomb group genes control pattern formation in plant seed. Current Biology, 2001, 11, 277-281.	1.8	133
34	Cellular effects of olomoucine, an inhibitor of cyclin-dependent kinases. Biology of the Cell, 1995, 83, 105-120.	0.7	131
35	Cytoskeleton dynamics control the first asymmetric cell division in <i>Arabidopsis</i> zygote. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14157-14162.	3.3	129
36	Endosperm: food for humankind and fodder for scientific discoveries. New Phytologist, 2012, 195, 290-305.	3.5	127

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37	Dynamic Deposition of Histone Variant H3.3 Accompanies Developmental Remodeling of the Arabidopsis Transcriptome. PLoS Genetics, 2012, 8, e1002658.	1.5	118
38	Mutations in the PILZ group genes disrupt the microtubule cytoskeleton and uncouple cell cycle progression from cell division in Arabidopsis embryo and endosperm. European Journal of Cell Biology, 1999, 78, 100-108.	1.6	116
39	The histone H3 variant H3.3 regulates gene body DNA methylation in Arabidopsis thaliana. Genome Biology, 2017, 18, 94.	3.8	116
40	Loss of Function of MULTICOPY SUPPRESSOR OF IRA 1 Produces Nonviable Parthenogenetic Embryos in Arabidopsis. Current Biology, 2005, 15, 750-754.	1.8	115
41	Integration of epigenetic and genetic controls of seed size by cytokinin in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15479-15484.	3.3	114
42	The Female Gametophyte and the Endosperm Control Cell Proliferation and Differentiation of the Seed Coat in Arabidopsis. Plant Cell, 2007, 18, 3491-3501.	3.1	111
43	Gamete Attachment Requires GEX2 for Successful Fertilization in Arabidopsis. Current Biology, 2014, 24, 170-175.	1.8	108
44	The Immunophilin-Interacting Protein AtFIP37 from Arabidopsis Is Essential for Plant Development and Is Involved in Trichome Endoreduplication. Plant Physiology, 2004, 134, 1283-1292.	2.3	107
45	Cellularisation in the endosperm of Arabidopsis thaliana is coupled to mitosis and shares multiple components with cytokinesis. Development (Cambridge), 2002, 129, 5567-5576.	1.2	103
46	Sperm entry is sufficient to trigger division of the central cell but the paternal genome is required for endosperm development in <i>Arabidopsis</i>. Development (Cambridge), 2010, 137, 2683-2690.	1.2	99
47	Chromatin assembly factor 1 regulates the cell cycle but not cell fate during male gametogenesis in<i>Arabidopsis thaliana</i>. Development (Cambridge), 2008, 135, 65-73.	1.2	96
48	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
49	Polycomb group genes control developmental timing of endosperm. Plant Journal, 2005, 42, 663-674.	2.8	91
50	Acupuncture and Neural Mechanism in the Management of Low Back Painâ€"An Update. Medicines (Basel,) Tj ETQq0 0 0 rgBT /Overlock	0.7	91
51	Polycomb Group Complexes Mediate Developmental Transitions in Plants. Plant Physiology, 2012, 158, 35-43.	2.3	86
52	Dynamic F-actin movement is essential for fertilization in Arabidopsis thaliana. ELife, 2014, 3, .	2.8	86
53	Diversification of histone H2A variants during plant evolution. Trends in Plant Science, 2015, 20, 419-425.	4.3	85
54	Ratio confocal imaging of free cytoplasmic calcium gradients in polarising and polarised<i>Fucus</i>zygotes. Zygote, 1993, 1, 9-15.	0.5	81

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55	RNA-directed DNA methylation regulates parental genomic imprinting at several loci in <i>Arabidopsis</i>. Development (Cambridge), 2013, 140, 2953-2960.	1.2	80
56	Complementation of Seed Maturation Phenotypes by Ectopic Expression of ABSCISIC ACID INSENSITIVE3, FUSCA3 and LEAFY COTYLEDON2 in Arabidopsis. Plant and Cell Physiology, 2015, 56, 1215-1228.	1.5	77
57	Histone acetylation recruits the SWR1 complex to regulate active DNA demethylation in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16641-16650.	3.3	73
58	The chromatin remodeler DDM1 prevents transposon mobility through deposition of histone variant H2A.W. Nature Cell Biology, 2021, 23, 391-400.	4.6	73
59	Control of reproduction by Polycomb Group complexes in animals and plants. International Journal of Developmental Biology, 2005, 49, 707-716.	0.3	71
60	Compartmentalization of DNA Damage Response between Heterochromatin and Euchromatin Is Mediated by Distinct H2A Histone Variants. Current Biology, 2017, 27, 1192-1199.	1.8	71
61	Proliferation and cell fate establishment during Arabidopsis male gametogenesis depends on the Retinoblastoma protein. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7257-7262.	3.3	69
62	The two male gametes share equal ability to fertilize the egg cell in Arabidopsis thaliana. Current Biology, 2009, 19, R19-R20.	1.8	67
63	Chromatin remodelling during male gametophyte development. Plant Journal, 2015, 83, 177-188.	2.8	67
64	Histone H2A variants confer specific properties to nucleosomes and impact on chromatin accessibility. Nucleic Acids Research, 2018, 46, 7675-7685.	6.5	65
65	Gamete-specific epigenetic mechanisms shape genomic imprinting. Current Opinion in Plant Biology, 2009, 12, 637-642.	3.5	64
66	DNA Methylation Causes Predominant Maternal Controls of Plant Embryo Growth. PLoS ONE, 2008, 3, e2298.	1.1	64
67	Histone3 variants in plants. Chromosoma, 2010, 119, 27-33.	1.0	63
68	Parental Genome Dosage Imbalance Deregulates Imprinting in Arabidopsis. PLoS Genetics, 2010, 6, e1000885.	1.5	63
69	Maternal control of seed development. Seminars in Cell and Developmental Biology, 2001, 12, 381-386.	2.3	62
70	Polycomb group-dependent imprinting of the actin regulator<i>AtFH5</i>regulates morphogenesis in<i>Arabidopsis thaliana</i>. Development (Cambridge), 2009, 136, 3399-3404.	1.2	61
71	Comparative transcriptomic analysis reveals conserved programmes underpinning organogenesis and reproduction in land plants. Nature Plants, 2021, 7, 1143-1159.	4.7	61
72	The Naming of Names: Guidelines for Gene Nomenclature in<i>Marchantia</i>. Plant and Cell Physiology, 2016, 57, 257-261.	1.5	60

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73	The HIRA complex that deposits the histone H3.3 is conserved in <i>Arabidopsis</i> and facilitates transcriptional dynamics. Biology Open, 2014, 3, 794-802.	0.6	58
74	Histone variants in plant transcriptional regulation. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2017, 1860, 123-130.	0.9	57
75	The histone variant H2A.W and linker histone H1 co-regulate heterochromatin accessibility and DNA methylation. Nature Communications, 2021, 12, 2683.	5.8	56
76	DNA LIGASE I exerts a maternal effect on seed development in<i>Arabidopsis thaliana</i>. Development (Cambridge), 2010, 137, 73-81.	1.2	55
77	Epigenetic reprogramming rewires transcription during the alternation of generations in Arabidopsis. ELife, 2021, 10, .	2.8	55
78	Transcription factor DUO1 generated by neo-functionalization is associated with evolution of sperm differentiation in plants. Nature Communications, 2018, 9, 5283.	5.8	54
79	Extracellular matrix and pattern in plant embryos: on the lookout for developmental information. Trends in Genetics, 1995, 11, 344-348.	2.9	51
80	The evolution and functional divergence of the histone H2B family in plants. PLoS Genetics, 2020, 16, e1008964.	1.5	51
81	The Drosophila maternal gene sÃ©same is required for sperm chromatin remodeling at fertilization. Chromosoma, 2001, 110, 430-440.	1.0	48
82	Building new insights in plant gametogenesis from an evolutionary perspective. Nature Plants, 2019, 5, 663-669.	4.7	46
83	Marchantia TCP transcription factor activity correlates with three-dimensional chromatin structure. Nature Plants, 2020, 6, 1250-1261.	4.7	46
84	Paternal Chromosome Incorporation into the Zygote Nucleus Is Controlled by maternal haploid in Drosophila. Developmental Biology, 2001, 231, 383-396.	0.9	45
85	Role of Polycomb in the control of transposable elements. Trends in Genetics, 2021, 37, 882-889.	2.9	45
86	Polycomb group gene function in sexual and asexual seed development in angiosperms. Sexual Plant Reproduction, 2010, 23, 123-133.	2.2	44
87	A Dialogue between the SirÃ¨ne Pathway in Synergids and the Fertilization Independent Seed Pathway in the Central Cell Controls Male Gamete Release during Double Fertilization in Arabidopsis. Molecular Plant, 2008, 1, 659-666.	3.9	43
88	DNA methylation reprogramming during plant sexual reproduction?. Trends in Genetics, 2010, 26, 394-399.	2.9	42
89	Histone variants take center stage in shaping the epigenome. Current Opinion in Plant Biology, 2021, 61, 101991.	3.5	42
90	Retinoblastoma protein is essential for early meiotic events in<i>Arabidopsis</i>. EMBO Journal, 2011, 30, 744-755.	3.5	41

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91	H2A Variants in Arabidopsis: Versatile Regulators of Genome Activity. Plant Communications, 2020, 1, 100015.	3.6	40
92	Three SAC1-like genes show overlapping patterns of expression in Arabidopsis but are remarkably silent during embryo development. Plant Journal, 2003, 34, 293-306.	2.8	39
93	Epigenetic reprogramming during plant reproduction and seed development. Current Opinion in Plant Biology, 2012, 15, 63-69.	3.5	37
94	Identification of the sex-determining factor in the liverwort Marchantia polymorpha reveals unique evolution of sex chromosomes in a haploid system. Current Biology, 2021, 31, 5522-5532.e7.	1.8	36
95	Histone Variants: The Nexus of Developmental Decisions and Epigenetic Memory. Annual Review of Genetics, 2020, 54, 121-149.	3.2	35
96	RNA interference-independent reprogramming of DNA methylation in Arabidopsis. Nature Plants, 2020, 6, 1455-1467.	4.7	34
97	Chromatin dynamics and Arabidopsis development. Chromosome Research, 2003, 11, 277-304.	1.0	30
98	Green love talks; cellâ€"cell communication during double fertilization in flowering plants. AoB PLANTS, 2011, 2011, plr015.	1.2	29
99	The central cell nuclear position at the micropylar end is maintained by the balance of F-actin dynamics, but dispensable for karyogamy in Arabidopsis. Plant Reproduction, 2015, 28, 103-110.	1.3	28
100	The atypical histone variant H3.15 promotes callus formation in <i>Arabidopsis thaliana</i>. Development (Cambridge), 2020, 147, .	1.2	27
101	Deep evolutionary origin of gamete-directed zygote activation by KNOX/BELL transcription factors in green plants. ELife, 2021, 10, .	2.8	26
102	LHP1 Interacts with ATRX through Plant-Specific Domains at Specific Loci Targeted by PRC2. Molecular Plant, 2018, 11, 1038-1052.	3.9	25
103	PLANT SCIENCES: Imprinting--a Green Variation. Science, 2004, 303, 483-485.	6.0	23
104	Double-fertilization, from myths to reality. Sexual Plant Reproduction, 2008, 21, 3-5.	2.2	23
105	Imaging fertilization in flowering plants, not so abominable after all. Journal of Experimental Botany, 2011, 62, 1651-1658.	2.4	22
106	A Synthetic Approach to Reconstruct the Evolutionary and Functional Innovations of the Plant Histone Variant H2A.W. Current Biology, 2021, 31, 182-191.e5.	1.8	20
107	Hypothesis: Selection of Imprinted Genes Is Driven by Silencing Deleterious Gene Activity in Somatic Tissues. Cold Spring Harbor Symposia on Quantitative Biology, 2012, 77, 23-29.	2.0	19
108	Heterochromatin and DNA damage repair: Use different histone variants and relax. Nucleus, 2017, 8, 583-588.	0.6	18

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109	Gametes, Fertilization and Early Embryogenesis in Flowering Plants. Advances in Botanical Research, 1998, 28, 231-261.	0.5	16
110	Marchantia. Current Biology, 2016, 26, R186-R187.	1.8	16
111	EvoChromo: towards a synthesis of chromatin biology and evolution. Development (Cambridge), 2019, 146, .	1.2	16
112	The evolution of imprinting in plants: beyond the seed. Plant Reproduction, 2021, 34, 373-383.	1.3	12
113	A simple and robust protocol for immunostaining Arabidopsis pollen nuclei. Plant Reproduction, 2019, 32, 39-43.	1.3	11
114	Genome-Wide Profiling of Histone Modifications and Histone Variants in Arabidopsis thaliana and Marchantia polymorpha. Methods in Molecular Biology, 2017, 1610, 93-106.	0.4	9
115	New cues for body axis formation in plant embryos. Current Opinion in Plant Biology, 2019, 47, 16-21.	3.5	9
116	Phosphorylation of the FACT histone chaperone subunit SPT16 affects chromatin at RNA polymerase II transcriptional start sites in <i>Arabidopsis</i>. Nucleic Acids Research, 2022, 50, 5014-5028.	6.5	9
117	Fertilization-independent Cell-fusion between the Synergid and Central Cell in the Polycomb Mutant. Cell Structure and Function, 2016, 41, 121-125.	0.5	8
118	Reproductive Biology: Receptor-Like Kinases Orchestrate Love Songs inÂPlants. Current Biology, 2009, 19, R647-R649.	1.8	7
119	Crosstalk between H2A variant-specific modifications impacts vital cell functions. PLoS Genetics, 2021, 17, e1009601.	1.5	7
120	Seminars in cell and development biology on histone variants remodelers of H2A variants associated with heterochromatin. Seminars in Cell and Developmental Biology, 2023, 135, 93-101.	2.3	7
121	A pharmacological study of <i>Arabidopsis</i> cell fusion between the persistent synergid and endosperm. Journal of Cell Science, 2018, 131, .	1.2	6
122	Emil Heitz, a true epigenetics pioneer. Nature Reviews Molecular Cell Biology, 2019, 20, 572-572.	16.1	5
123	Establishment of a novel method for the identification of fertilization defective mutants in Arabidopsis thaliana. Biochemical and Biophysical Research Communications, 2020, 521, 928-932.	1.0	5
124	Which field of research would Gregor Mendel choose in the 21st century?. Plant Cell, 2022, 34, 2462-2465.	3.1	5
125	Establishment of the apical-basal axis in multicellular plant embryos. Biology of the Cell, 1995, 84, 7-11.	0.7	4
126	Dynamic Analyses of the Expression of the HISTONE::YFP Fusion Protein in Arabidopsis Show That Syncytial Endosperm Is Divided in Mitotic Domains. Plant Cell, 2001, 13, 495.	3.1	4

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127	Editorial overview: Genome architecture and expression: Connecting genome composition and nuclear architecture with function. Current Opinion in Genetics and Development, 2016, 37, iv-vi.	1.5	4
128	Live-Cell Imaging of F-Actin Dynamics During Fertilization in Arabidopsis thaliana. Methods in Molecular Biology, 2017, 1669, 47-54.	0.4	4
129	Diversification of chromatin organization in eukaryotes. Current Opinion in Cell Biology, 2022, 74, 1-6.	2.6	4
130	One residueâ€"one function. Science, 2022, 375, 1232-1233.	6.0	2
131	An ancient antisenseâ€driven <scp>RNA</scp> switch drives plant sex determination. EMBO Journal, 2019, 38, .	3.5	1
132	The evolution and functional divergence of the histone H2B family in plants. , 2020, 16, e1008964.		1
133	Histone variants: The architects of chromatin. Seminars in Cell and Developmental Biology, 2023, 135, 1-2.	2.3	1
134	Endogenous releasable cell wall factors control cell fate during embryogenesis in the multicellular alga Fucus. Biology of the Cell, 1995, 84, 88-88.	0.7	0
135	Editorial overview: A look into the workshop. Current Opinion in Plant Biology, 2002, 5, 477-479.	3.5	0
136	The strictest usage of the term epigenetic. Seminars in Cell and Developmental Biology, 2008, 19, 525-526.	2.3	0
137	Epigenetic Modifications at Developmental Transitions in Arabidopsis. , 2015, , 119-131.		0
138	FrÃ©dÃ©ric Berger. Current Biology, 2016, 26, R1170-R1171.	1.8	0
139	The evolution and functional divergence of the histone H2B family in plants. , 2020, 16, e1008964.		0
140	The evolution and functional divergence of the histone H2B family in plants. , 2020, 16, e1008964.		0
141	The evolution and functional divergence of the histone H2B family in plants. , 2020, 16, e1008964.		0
142	The evolution and functional divergence of the histone H2B family in plants. , 2020, 16, e1008964.		0