Zhukuan Cheng

List of Publications by Year
in descending order

66 papers	4,104 citations	126907 33 h-index	123424 61 g-index
67 all docs	67 docs citations	67 times ranked	3106 citing authors

#	Article	IF	Citations
1	Sequencing of a rice centromere uncovers active genes. Nature Genetics, 2004, 36, 138-145.	21.4	489
2	Functional Rice Centromeres Are Marked by a Satellite Repeat and a Centromere-Specific Retrotransposon. Plant Cell, 2002, 14, 1691-1704.	6.6	375
3	Clonal seeds from hybrid rice by simultaneous genome engineering of meiosis and fertilization genes. Nature Biotechnology, 2019, 37, 283-286.	17.5	250
4	From The Cover: Chromatin immunoprecipitation cloning reveals rapid evolutionary patterns of centromeric DNA in Oryza species. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11793-11798.	7.1	175
5	The Central Element Protein ZEP1 of the Synaptonemal Complex Regulates the Number of Crossovers during Meiosis in Rice Â Â. Plant Cell, 2010, 22, 417-430.	6.6	173
6	Mutations in the Fâ€box gene LARGER PANICLE improve the panicle architecture and enhance the grain yield in rice. Plant Biotechnology Journal, 2011, 9, 1002-1013.	8.3	160
7	The Role of Rice HEI10 in the Formation of Meiotic Crossovers. PLoS Genetics, 2012, 8, e1002809.	3.5	127
8	The Role of ZIP4 in Homologous Chromosome Synapsis and Crossover Formation in Rice Meiosis. Journal of Cell Science, 2012, 125, 2581-91.	2.0	116
9	OsREC8 Is Essential for Chromatid Cohesion and Metaphase I Monopolar Orientation in Rice Meiosis. Plant Physiology, 2011, 156, 1386-1396.	4.8	115
10	Somatic and Reproductive Cell Development in Rice Anther Is Regulated by a Putative Glutaredoxin. Plant Cell, 2012, 24, 577-588.	6.6	108
11	MER3 is required for normal meiotic crossover formation, but not for presynaptic alignment in rice. Journal of Cell Science, 2009, 122, 2055-2063.	2.0	104
12	Heat stress-induced transposon activation correlates with 3D chromatin organization rearrangement in Arabidopsis. Nature Communications, 2020, 11, 1886.	12.8	102
13	PAIR3, an axis-associated protein, is essential for the recruitment of recombination elements onto meiotic chromosomes in rice. Molecular Biology of the Cell, 2011, 22, 12-19.	2.1	87
14	CENTRAL REGION COMPONENT1, a Novel Synaptonemal Complex Component, Is Essential for Meiotic Recombination Initiation in Rice. Plant Cell, 2013, 25, 2998-3009.	6.6	81
15	Cytokinin oxidase/dehydrogenase OsCKX11 coordinates source and sink relationship in rice by simultaneous regulation of leaf senescence and grain number. Plant Biotechnology Journal, 2021, 19, 335-350.	8.3	80
16	OsSPO11-1 is essential for both homologous chromosome pairing and crossover formation in rice. Chromosoma, 2010, 119, 625-636.	2.2	68
17	Ten Years of Gene Discovery for Meiotic Event Control in Rice. Journal of Genetics and Genomics, 2014, 41, 125-137.	3.9	68
18	OsDMC1 Is Not Required for Homologous Pairing in Rice Meiosis. Plant Physiology, 2016, 171, 230-241.	4.8	67

#	Article	IF	Citations
19	The F-Box Protein ZYGO1 Mediates Bouquet Formation to Promote Homologous Pairing, Synapsis, and Recombination in Rice Meiosis. Plant Cell, 2017, 29, 2597-2609.	6.6	61
20	The Transcribed 165-bp CentO Satellite Is the Major Functional Centromeric Element in the Wild Rice Species Oryza punctata. Plant Physiology, 2005, 139, 306-315.	4.8	60
21	21-nt phasiRNAs direct target mRNA cleavage in rice male germ cells. Nature Communications, 2020, 11, 5191.	12.8	56
22	The role of OsCOM1 in homologous chromosome synapsis and recombination in rice meiosis. Plant Journal, 2012, 72, 18-30.	5.7	53
23	<scp>MIL</scp>2 (<scp>MICROSPORELESS</scp>2) regulates early cell differentiation in the rice anther. New Phytologist, 2012, 196, 402-413.	7.3	51
24	OsRAD51C is essential for double-strand break repair in rice meiosis. Frontiers in Plant Science, 2014, 5, 167.	3.6	51
25	OsAM1 is required for leptotene-zygotene transition in rice. Cell Research, 2011, 21, 654-665.	12.0	47
26	OsSGO1 maintains synaptonemal complex stabilization in addition to protecting centromeric cohesion during rice meiosis. Plant Journal, 2011, 67, 583-594.	5.7	46
27	BRK1, a Bub1-Related Kinase, Is Essential for Generating Proper Tension between Homologous Kinetochores at Metaphase I of Rice Meiosis. Plant Cell, 2013, 24, 4961-4973.	6.6	46
28	The Role of OsMSH5 in Crossover Formation during Rice Meiosis. Molecular Plant, 2013, 6, 729-742.	8.3	46
29	P31 ^{comet} , a member of the synaptonemal complex, participates in meiotic DSB formation in rice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10577-10582.	7.1	43
30	Meiotic Chromosome Association 1 Interacts with TOP3Î± and Regulates Meiotic Recombination in Rice. Plant Cell, 2017, 29, 1697-1708.	6.6	43
31	Molecular Cytogenetic Characterization of the Antirrhinum majus GenomeSequence data from this article have been deposited with the EMBL/GenBank Data Libraries under the accession nos. AY630561 (for BAC 5E10) and AY6305612 (for BAC 36D21).. Genetics, 2005, 169, 325-335.	2.9	42
32	Analyzing Meiotic Chromosomes in Rice. Methods in Molecular Biology, 2013, 990, 125-134.	0.9	41
33	Characterization of a new semi-dominant dwarf allele of SLR1 and its potential application in hybrid rice breeding. Journal of Experimental Botany, 2018, 69, 4703-4713.	4.8	40
34	Ornithine Î´â€aminotransferase is critical for floret development and seed setting through mediating nitrogen reutilization in rice. Plant Journal, 2018, 96, 842-854.	5.7	40
35	Crossover Formation During Rice Meiosis Relies on Interaction of OsMSH4 and OsMSH5. Genetics, 2014, 198, 1447-1456.	2.9	39
36	XRCC3 is essential for proper double-strand break repair and homologous recombination in rice meiosis. Journal of Experimental Botany, 2015, 66, 5713-5725.	4.8	38

#	Article	IF	Citations
37	OsMTOPVIB Promotes Meiotic DNA Double-Strand Break Formation in Rice. Molecular Plant, 2016, 9, 1535-1538.	8.3	36
38	Os<scp>SPL</scp> regulates meiotic fate acquisition in rice. New Phytologist, 2018, 218, 789-803.	7.3	33
39	OsSDS is essential for DSB formation in rice meiosis. Frontiers in Plant Science, 2015, 6, 21.	3.6	32
40	A strategy for generating rice apomixis by gene editing. Journal of Integrative Plant Biology, 2019, 61, 911-916.	8.5	32
41	HEIP1 regulates crossover formation during meiosis in rice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10810-10815.	7.1	28
42	De novo genome assembly of Oryza granulata reveals rapid genome expansion and adaptive evolution. Communications Biology, 2018, 1, 84.	4.4	24
43	OsMTOPVIB is required for meiotic bipolar spindle assembly. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15967-15972.	7.1	24
44	A rice chloroplastâ€localized ABC transporter ARG1 modulates cobalt and nickel homeostasis and contributes to photosynthetic capacity. New Phytologist, 2020, 228, 163-178.	7.3	23
45	The OsRR24/LEPTO1 Type-B Response Regulator is Essential for the Organization of Leptotene Chromosomes in Rice Meiosis. Plant Cell, 2018, 30, 3024-3037.	6.6	22
46	Os HOP 2 regulates the maturation of crossovers by promoting homologous pairing and synapsis in rice meiosis. New Phytologist, 2019, 222, 805-819.	7.3	21
47	Oryza sativa RNA-Dependent RNA Polymerase 6 Contributes to Double-Strand Break Formation in Meiosis. Plant Cell, 2020, 32, 3273-3289.	6.6	20
48	Global Identification of Genes Specific for Rice Meiosis. PLoS ONE, 2015, 10, e0137399.	2.5	19
49	OsPINOID Regulates Stigma and Ovule Initiation through Maintenance of the Floral Meristem by Auxin Signaling. Plant Physiology, 2019, 180, 952-965.	4.8	19
50	Nitrogen nutrition contributes to plant fertility by affecting meiosis initiation. Nature Communications, 2022, 13, 485.	12.8	18
51	The zinc finger protein DCM1 is required for male meiotic cytokinesis by preserving callose in rice. PLoS Genetics, 2018, 14, e1007769.	3.5	17
52	OsRAD51D promotes homologous pairing and recombination by preventing nonhomologous interactions in rice meiosis. New Phytologist, 2020, 227, 824-839.	7.3	17
53	OsHUS1 Facilitates Accurate Meiotic Recombination in Rice. PLoS Genetics, 2014, 10, e1004405.	3.5	15
54	The endonuclease homolog OsRAD1 promotes accurate meiotic double-strand break repair by suppressing non-homologous end joining. Plant Physiology, 2016, 172, pp.00831.2016.	4.8	14

#	Article	IF	Citations
55	The SUN Domain Proteins OsSUN1 and OsSUN2 Play Critical but Partially Redundant Roles in Meiosis. Plant Physiology, 2020, 183, 1517-1530.	4.8	14
56	PRD1, a homologous recombination initiation factor, is involved in spindle assembly in rice meiosis. New Phytologist, 2021, 230, 585-600.	7.3	13
57	A functional centromere lacking CentO sequences in a newly formed ring chromosome in rice. Journal of Genetics and Genomics, 2016, 43, 694-701.	3.9	12
58	Defective Microspore DevelopmentÂ1 is required for microspore cell integrity and pollen wall formation in rice. Plant Journal, 2020, 103, 1446-1459.	5.7	11
59	OsRAD17 Is Required for Meiotic Double-Strand Break Repair and Plays a Redundant Role With OsZIP4 in Synaptonemal Complex Assembly. Frontiers in Plant Science, 2018, 9, 1236.	3.6	10
60	Concurrent Disruption of Genetic Interference and Increase of Genetic Recombination Frequency in Hybrid Rice Using CRISPR/Cas9. Frontiers in Plant Science, 2021, 12, 757152.	3.6	9
61	The E3 ubiquitin ligase DESYNAPSIS1 regulates synapsis and recombination in rice meiosis. Cell Reports, 2021, 37, 109941.	6.4	9
62	OsATM Safeguards Accurate Repair of Meiotic Double-Strand Breaks in Rice. Plant Physiology, 2020, 183, 1047-1057.	4.8	6
63	Replication protein A large subunit (RPA1a) limits chiasma formation during rice meiosis. Plant Physiology, 2021, 187, 1605-1618.	4.8	6
64	Reproductive cells and peripheral parietal cells collaboratively participate in meiotic fate acquisition in rice anthers. Plant Journal, 2021, 108, 661-671.	5.7	5
65	De novo centromere formation in pericentromeric region of rice chromosome 8. Plant Journal, 0, , .	5.7	4
66	Rice Cell Division Cycle 20s are required for faithful chromosome segregation and cytokinesis during meiosis. Plant Physiology, 2022, 188, 1111-1128.	4.8	3