JamesÂ D Higgins

List of Publications by Year
in descending order

49 papers	3,807 citations	172457 29 h-index	197818 49 g-index
54 all docs	54 docs citations	54 times ranked	2652 citing authors

#	Article	IF	Citations
1	The Arabidopsis synaptonemal complex protein ZYP1 is required for chromosome synapsis and normal fidelity of crossing over. Genes and Development, 2005, 19, 2488-2500.	5.9	378
2	Arabidopsis meiotic crossover hot spots overlap with H2A.Z nucleosomes at gene promoters. Nature Genetics, 2013, 45, 1327-1336.	21.4	321
3	The Arabidopsis MutS homolog AtMSH4 functions at an early step in recombination: evidence for two classes of recombination in Arabidopsis. Genes and Development, 2004, 18, 2557-2570.	5.9	308
4	Meiotic Adaptation to Genome Duplication in Arabidopsis arenosa. Current Biology, 2013, 23, 2151-2156.	3.9	217
5	Pathways to meiotic recombination in Arabidopsis thaliana. New Phytologist, 2011, 190, 523-544.	7.3	208
6	Spatiotemporal Asymmetry of the Meiotic Program Underlies the Predominantly Distal Distribution of Meiotic Crossovers in Barley. Plant Cell, 2012, 24, 4096-4109.	6.6	185
7	Inter-Homolog Crossing-Over and Synapsis in Arabidopsis Meiosis Are Dependent on the Chromosome Axis Protein AtASY3. PLoS Genetics, 2012, 8, e1002507.	3.5	170
8	Sexual-lineage-specific DNA methylation regulates meiosis in Arabidopsis. Nature Genetics, 2018, 50, 130-137.	21.4	153
9	Expression and functional analysis of AtMUS81 in Arabidopsis meiosis reveals a role in the second pathway of crossingâ€over. Plant Journal, 2008, 54, 152-162.	5.7	148
10	Meiosis evolves: adaptation to external and internal environments. New Phytologist, 2015, 208, 306-323.	7.3	148
11	AtMSH5 partners AtMSH4 in the class I meiotic crossover pathway in Arabidopsis thaliana, but is not required for synapsis. Plant Journal, 2008, 55, 28-39.	5.7	140
12	Arabidopsis PCH2 Mediates Meiotic Chromosome Remodeling and Maturation of Crossovers. PLoS Genetics, 2015, 11, e1005372.	3.5	97
13	The Fanconi Anemia Ortholog FANCM Ensures Ordered Homologous Recombination in Both Somatic and Meiotic Cells in Arabidopsis. Plant Cell, 2012, 24, 1448-1464.	6.6	94
14	The Synaptonemal Complex Protein ZYP1 Is Required for Imposition of Meiotic Crossovers in Barley. Plant Cell, 2014, 26, 729-740.	6.6	88
15	Analysis of the recombination landscape of hexaploid bread wheat reveals genes controlling recombination and gene conversion frequency. Genome Biology, 2019, 20, 69.	8.8	79
16	ZYP1 is required for obligate cross-over formation and cross-over interference in Arabidopsis. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	78
17	ASY1 coordinates early events in the plant meiotic recombination pathway. Cytogenetic and Genome Research, 2008, 120, 302-312.	1.1	62
18	Factors Underlying Restricted Crossover Localization in Barley Meiosis. Annual Review of Genetics, 2014, 48, 29-47.	7.6	60

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19	Interspecific introgression mediates adaptation to whole genome duplication. Nature Communications, 2019, 10, 5218.	12.8	59
20	Interacting Genomic Landscapes of REC8-Cohesin, Chromatin, and Meiotic Recombination in Arabidopsis. Plant Cell, 2020, 32, 1218-1239.	6.6	57
21	Chromosome synapsis in Arabidopsis: analysis of the transverse filament protein ZYP1 reveals novel functions for the synaptonemal complex. Chromosoma, 2006, 115, 212-219.	2.2	50
22	MEIOTIC F-BOX Is Essential for Male Meiotic DNA Double-Strand Break Repair in Rice. Plant Cell, 2016, 28, 1879-1893.	6.6	50
23	Replication Protein A2c Coupled with Replication Protein A1c Regulates Crossover Formation during Meiosis in Rice Â Â. Plant Cell, 2013, 25, 3885-3899.	6.6	44
24	A spontaneous mutation in MutLâ€Homolog 3 (Hv<scp>MLH</scp>3) affects synapsis and crossover resolution in the barley desynaptic mutant des10. New Phytologist, 2016, 212, 693-707.	7.3	44
25	<scp>MSH</scp> 2 shapes the meiotic crossover landscape in relation to interhomolog polymorphism in Arabidopsis. EMBO Journal, 2020, 39, e104858.	7.8	44
26	Retinoblastoma protein is essential for early meiotic events inArabidopsis. EMBO Journal, 2011, 30, 744-755.	7.8	41
27	A strategy to investigate the plant meiotic proteome. Cytogenetic and Genome Research, 2005, 109, 181-189.	1.1	38
28	The RecQ helicase AtRECQ4A is required to remove interâ€chromosomal telomeric connections that arise during meiotic recombination in Arabidopsis. Plant Journal, 2011, 65, 492-502.	5.7	37
29	Control of meiotic recombination in Arabidopsis: role of the MutL and MutS homologues. Biochemical Society Transactions, 2006, 34, 542-544.	3.4	35
30	<scp>CENH</scp>3 morphogenesis reveals dynamic centromere associations during synaptonemal complex formation and the progression through male meiosis in hexaploid wheat. Plant Journal, 2017, 89, 235-249.	5.7	34
31	Cytological techniques to analyze meiosis in Arabidopsis arenosa for investigating adaptation to polyploidy. Frontiers in Plant Science, 2014, 4, 546.	3.6	31
32	The Production of Marker-Free Genetically Engineered Broccoli with Sense and Antisense ACC synthase 1 and ACC oxidases 1 and 2 to Extend Shelf-Life. Molecular Breeding, 2006, 17, 7-20.	2.1	30
33	The DNA Topoisomerase VIâ€“B Subunit OsMTOPVIB Is Essential for Meiotic Recombination Initiation in Rice. Molecular Plant, 2016, 9, 1539-1541.	8.3	30
34	A novel allele of ASY3 is associated with greater meiotic stability in autotetraploid Arabidopsis lyrata. PLoS Genetics, 2020, 16, e1008900.	3.5	26
35	MutS homologue 4 and MutS homologue 5 Maintain the Obligate Crossover in Wheat Despite Stepwise Gene Loss following Polyploidization. Plant Physiology, 2020, 183, 1545-1558.	4.8	24
36	Quantitative high resolution mapping of HvMLH3 foci in barley pachytene nuclei reveals a strong distal bias and weak interference. Journal of Experimental Botany, 2013, 64, 2139-2154.	4.8	23

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37	Resolvase OsGEN1 Mediates DNA Repair by Homologous Recombination. Plant Physiology, 2017, 173, 1316-1329.	4.8	22
38	Distal Bias of Meiotic Crossovers in Hexaploid Bread Wheat Reflects Spatio-Temporal Asymmetry of the Meiotic Program. Frontiers in Plant Science, 2021, 12, 631323.	3.6	22
39	FANCM promotes class I interfering crossovers and suppresses class II non-interfering crossovers in wheat meiosis. Nature Communications, 2022, 13, .	12.8	21
40	A Multiprotein Complex Regulates Interference-Sensitive Crossover Formation in Rice. Plant Physiology, 2019, 181, 221-235.	4.8	20
41	Crossover-active regions of the wheat genome are distinguished by DMC1, the chromosome axis, H3K27me3, and signatures of adaptation. Genome Research, 2021, 31, 1614-1628.	5.5	18
42	Herbicidal action of 2-hydroxy-3-alkyl-1,4-naphthoquinones. Pest Management Science, 2002, 58, 234-242.	3.4	14
43	Analyzing Meiosis in Barley. Methods in Molecular Biology, 2013, 990, 135-144.	0.9	9
44	MeioCapture: an efficient method for staging and isolation of meiocytes in the prophase I sub-stages of meiosis in wheat. BMC Plant Biology, 2018, 18, 293.	3.6	9
45	Recent autopolyploidization in a naturalized population of Mimulus guttatus (Phrymaceae). Botanical Journal of the Linnean Society, 2017, , .	1.6	8
46	Rice OsBRCA2 Is Required for DNA Double-Strand Break Repair in Meiotic Cells. Frontiers in Plant Science, 2020, 11, 600820.	3.6	8
47	A Cytological Analysis of Wheat Meiosis Targeted by Virus-Induced Gene Silencing (VIGS). Methods in Molecular Biology, 2020, 2061, 319-330.	0.9	8
48	Analysis of meiotic segregation by triple-color fish on both total and motile sperm fractions in a t(1p;18) river buffalo bull. PLoS ONE, 2020, 15, e0232592.	2.5	7
49	Sporophytic control of pollen meiotic progression is mediated by tapetum expression of ABORTED MICROSPORES. Journal of Experimental Botany, 2022, 73, 5543-5558.	4.8	6