Holger Puchta

List of Publications by Year
in descending order

174 papers	12,087 citations	17429 63 h-index	30894 102 g-index
183 all docs	183 docs citations	183 times ranked	8057 citing authors

#	Article	IF	Citations
1	Both <scp>CRISPR</scp>/<scp>C</scp>asâ€based nucleases and nickases can be used efficiently for genome engineering in <i><scp>A</scp>rabidopsis thaliana</i>. Plant Journal, 2014, 79, 348-359.	2.8	662
2	The repair of double-strand breaks in plants: mechanisms and consequences for genome evolution. Journal of Experimental Botany, 2004, 56, 1-14.	2.4	454
3	Two different but related mechanisms are used in plants for the repair of genomic double-strand breaks by homologous recombination.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 5055-5060.	3.3	367
4	Elevated UV-B radiation reduces genome stability in plants. Nature, 2000, 406, 98-101.	13.7	355
5	Capture of genomic and T-DNA sequences during double-strand break repair in somatic plant cells. EMBO Journal, 1998, 17, 6086-6095.	3.5	337
6	The <scp>CRISPR</scp>/<scp>C</scp>as system can be used as nuclease for <i>in planta</i> gene targeting and as paired nickases for directed mutagenesis in <scp>A</scp>rabidopsis resulting in heritable progeny. Plant Journal, 2014, 80, 1139-1150.	2.8	317
7	Homologous recombination in plant cells is enhanced byin vivoinduction of double strand breaks into DNA by a site-specific endonuclease. Nucleic Acids Research, 1993, 21, 5034-5040.	6.5	272
8	Applying CRISPR/Cas for genome engineering in plants: the best is yet to come. Current Opinion in Plant Biology, 2017, 36, 1-8.	3.5	264
9	Synthetic nucleases for genome engineering in plants: prospects for a bright future. Plant Journal, 2014, 78, 727-741.	2.8	236
10	Highly efficient heritable plant genome engineering using Cas9 orthologues from <i>Streptococcus thermophilus</i> and <i>Staphylococcus aureus</i>. Plant Journal, 2015, 84, 1295-1305.	2.8	235
11	Towards <scp>CRISPR</scp>/Cas crops â€“ bringing together genomics and genome editing. New Phytologist, 2017, 216, 682-698.	3.5	235
12	BRCC36A is epistatic to BRCA1 in DNA crosslink repair and homologous recombination in Arabidopsis thaliana. Nucleic Acids Research, 2011, 39, 146-154.	6.5	200
13	<i>In planta</i> gene targeting. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7535-7540.	3.3	186
14	Species-specific double-strand break repair and genome evolution in plants. EMBO Journal, 2000, 19, 5562-5566.	3.5	175
15	Intrachromosomal homologous recombination in whole plants.. EMBO Journal, 1994, 13, 484-489.	3.5	157
16	Gene targeting in plants: 25 years later. International Journal of Developmental Biology, 2013, 57, 629-637.	0.3	156
17	Efficient Repair of Genomic Double-Strand Breaks by Homologous Recombination between Directly Repeated Sequences in the Plant Genome. Plant Cell, 2002, 14, 1121-1131.	3.1	144
18	Two closely related RecQ helicases have antagonistic roles in homologous recombination and DNA repair in <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18836-18841.	3.3	133

#	Article	IF	Citations
19	From centiMorgans to base pairs: homologous recombination in plants. Trends in Plant Science, 1996, 1, 340-348.	4.3	132
20	Revolutionizing plant biology: multiple ways of genome engineering by CRISPR/Cas. Plant Methods, 2016, 12, 8.	1.9	132
21	Elimination of selection markers from transgenic plants. Current Opinion in Biotechnology, 2001, 12, 139-143.	3.3	129
22	Plant breeding at the speed of light: the power of CRISPR/Cas to generate directed genetic diversity at multiple sites. BMC Plant Biology, 2019, 19, 176.	1.6	128
23	Agrobacterium tumefaciens transfers single-stranded transferred DNA (T-DNA) into the plant cell nucleus.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 8000-8004.	3.3	127
24	The Catalytically Active Tyrosine Residues of Both SPO11-1 and SPO11-2 Are Required for Meiotic Double-Strand Break Induction in <i>Arabidopsis</i>. Plant Cell, 2007, 19, 3090-3099.	3.1	125
25	Repair of genomic double-strand breaks in somatic plant cells by one-sided invasion of homologous sequences. Plant Journal, 1998, 13, 331-339.	2.8	120
26	Efficient <i>in planta</i> gene targeting in Arabidopsis using egg cellâ€specific expression of the Cas9 nuclease of <i>Staphylococcus aureus</i>. Plant Journal, 2018, 94, 735-746.	2.8	119
27	Molecular characterisation of two paralogous SPO11 homologues in Arabidopsis thaliana. Nucleic Acids Research, 2000, 28, 1548-1554.	6.5	116
28	From classical mutagenesis to nucleaseâ€based breeding â€" directing natural <scp>DNA</scp> repair for a natural endâ€product. Plant Journal, 2017, 90, 819-833.	2.8	115
29	Liveâ€cell <scp>CRISPR</scp> imaging in plants reveals dynamic telomere movements. Plant Journal, 2017, 91, 565-573.	2.8	114
30	Induction of intrachromosomal homologous recombination in whole plants. Plant Journal, 1995, 7, 203-210.	2.8	113
31	An Archaebacterial Topoisomerase Homolog Not Present in Other Eukaryotes Is Indispensable for Cell Proliferation of Plants. Current Biology, 2002, 12, 1787-1791.	1.8	113
32	The role of AtMUS81 in DNA repair and its genetic interaction with the helicase AtRecQ4A. Nucleic Acids Research, 2006, 34, 4438-4448.	6.5	113
33	CRISPR/Cas-mediated gene targeting in plants: finally a turn for the better for homologous recombination. Plant Cell Reports, 2019, 38, 443-453.	2.8	111
34	The CRISPR/Cas revolution continues: From efficient gene editing for crop breeding to plant synthetic biology. Journal of Integrative Plant Biology, 2018, 60, 1127-1153.	4.1	109
35	Engineering CRISPR/<i>Lb</i>Cas12a for highly efficient, temperatureâ€tolerant plant gene editing. Plant Biotechnology Journal, 2020, 18, 1118-1120.	4.1	107
36	CRISPRâ€"Cas9-mediated induction of heritable chromosomal translocations in Arabidopsis. Nature Plants, 2020, 6, 638-645.	4.7	104

#	Article	IF	Citations
37	Molecular characterization of homologues of both subunits A (SPO11) and B of the archaebacterial topoisomerase 6 in plants. Gene, 2001, 271, 81-86.	1.0	103
38	Different pathways of homologous recombination are used for the repair of double-strand breaks within tandemly arranged sequences in the plant genome. Plant Journal, 2003, 35, 604-612.	2.8	102
39	The STRUCTURAL MAINTENANCE OF CHROMOSOMES 5/6 Complex Promotes Sister Chromatid Alignment and Homologous Recombination after DNA Damage in<i>Arabidopsis thaliana</i>Â Â. Plant Cell, 2009, 21, 2688-2699.	3.1	98
40	The Fanconi Anemia Ortholog FANCM Ensures Ordered Homologous Recombination in Both Somatic and Meiotic Cells in Arabidopsis. Plant Cell, 2012, 24, 1448-1464.	3.1	94
41	Removing selectable marker genes: taking the shortcut. Trends in Plant Science, 2000, 5, 273-274.	4.3	91
42	The transcriptional response ofArabidopsisto genotoxic stress - a high-density colony array study (HDCA). Plant Journal, 2003, 35, 771-786.	2.8	91
43	Effects of nanosecond pulsed electric field exposure on arabidopsis thaliana. IEEE Transactions on Dielectrics and Electrical Insulation, 2009, 16, 1322-1328.	1.8	90
44	Double-Strand Break-Induced Recombination Between Ectopic Homologous Sequences in Somatic Plant Cells. Genetics, 1999, 152, 1173-1181.	1.2	90
45	CRISPR/Cas brings plant biology and breeding into the fast lane. Current Opinion in Biotechnology, 2020, 61, 7-14.	3.3	89
46	The molecular structure of hop latent viroid (HLV), a new viroid occurring worldwide in hops. Nucleic Acids Research, 1988, 16, 4197-4216.	6.5	86
47	Gene replacement by homologous recombination in plants. Plant Molecular Biology, 2002, 48, 173-182.	2.0	86
48	Efficient induction of heritable inversions in plant genomes using the <scp>CRISPR</scp>/Cas system. Plant Journal, 2019, 98, 577-589.	2.8	85
49	Topoisomerase 3Î± and RMI1 Suppress Somatic Crossovers and Are Essential for Resolution of Meiotic Recombination Intermediates in Arabidopsis thaliana. PLoS Genetics, 2008, 4, e1000285.	1.5	84
50	RAD5A, RECQ4A, and MUS81 Have Specific Functions in Homologous Recombination and Define Different Pathways of DNA Repair in<i>Arabidopsis thaliana</i>Â. Plant Cell, 2010, 22, 3318-3330.	3.1	84
51	Homology-based double-strand break-induced genome engineering in plants. Plant Cell Reports, 2016, 35, 1429-1438.	2.8	84
52	DNA recombination in somatic plant cells: mechanisms and evolutionary consequences. Chromosome Research, 2014, 22, 191-201.	1.0	83
53	The <scp>CRISPR</scp>/Cas revolution reaches the <scp>RNA</scp> world: Cas13, a new Swiss Army knife for plant biologists. Plant Journal, 2018, 94, 767-775.	2.8	83
54	Changing local recombination patterns in Arabidopsis by CRISPR/Cas mediated chromosome engineering. Nature Communications, 2020, 11, 4418.	5.8	82

#	Article	IF	Citations
55	The Rad17 homologue ofArabidopsis involved in the regulation of DNA damage repair and homologous recombination. Plant Journal, 2004, 38, 954-968.	2.8	79
56	Somatic intrachromosomal homologous recombination events in populations of plant siblings. Plant Molecular Biology, 1995, 28, 281-292.	2.0	78
57	Using <scp>CRISPR</scp>/Cas in three dimensions: towards synthetic plant genomes, transcriptomes and epigenomes. Plant Journal, 2016, 87, 5-15.	2.8	78
58	ZYP1 is required for obligate cross-over formation and cross-over interference in <i>Arabidopsis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	78
59	<i>In planta</i> gene targeting can be enhanced by the use of CRISPR/Cas12a. Plant Journal, 2019, 100, 1083-1094.	2.8	77
60	Marker-free transgenic plants. Plant Cell, Tissue and Organ Culture, 2003, 74, 123-134.	1.2	76
61	Two Unlinked Double-Strand Breaks Can Induce Reciprocal Exchanges in Plant Genomes via Homologous Recombination and Nonhomologous End Joining. Genetics, 2007, 175, 21-29.	1.2	74
62	Transforming plant biology and breeding with <scp>CRISPR</scp>/Cas9, Cas12 and Cas13. FEBS Letters, 2018, 592, 1954-1967.	1.3	74
63	Molecular characterisation of RecQ homologues in Arabidopsis thaliana. Nucleic Acids Research, 2000, 28, 4275-4282.	6.5	73
64	The role of DNA helicases and their interaction partners in genome stability and meiotic recombination in plants. Journal of Experimental Botany, 2011, 62, 1565-1579.	2.4	73
65	The RecQ gene family in plants. Journal of Plant Physiology, 2006, 163, 287-296.	1.6	65
66	The requirement for recombination factors differs considerably between different pathways of homologous doubleâ€strand break repair in somatic plant cells. Plant Journal, 2012, 72, 781-790.	2.8	63
67	BRCA2 is a mediator of RAD51â€•and DMC1â€facilitated homologous recombination in<i>Arabidopsis thaliana</i>. New Phytologist, 2012, 193, 364-375.	3.5	59
68	Primary and secondary structure of citrus viroid IV (CVd IV), a new chimeric viroid present in dwarfed grapefruit in Israel. Nucleic Acids Research, 1991, 19, 6640-6640.	6.5	58
69	A transient assay in plant cells reveals a positive correlation between extrachromosomal recombination rates and length of homologous overlap. Nucleic Acids Research, 1991, 19, 2693-2700.	6.5	58
70	Homologs of Breast Cancer Genes in Plants. Frontiers in Plant Science, 2011, 2, 19.	1.7	58
71	Gene regulation in response to DNA damage. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2012, 1819, 154-165.	0.9	58
72	Repair of adjacent single-strand breaks is often accompanied by the formation of tandem sequence duplications in plant genomes. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7266-7271.	3.3	56

#	Article	IF	Citations
73	A new strain of potato spindle tuber viroid (PSTVd-N) exhibits major sequence differences as compared to all other PSTVd strains sequenced so far. Plant Molecular Biology, 1990, 15, 509-511.	2.0	55
74	Gene replacement by homologous recombination in plants. , 2002, , 173-182.		55
75	RecA stimulates sister chromatid exchange and the fidelity of double-strand break repair, but not gene targeting, in plants transformed by Agrobacterium. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 3358-3363.	3.3	52
76	Fork sensing and strand switching control antagonistic activities of RecQ helicases. Nature Communications, 2013, 4, 2024.	5.8	51
77	Gene therapy in plants. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 8321-8323.	3.3	49
78	A homologue of the breast cancer-associated gene BARD1 is involved in DNA repair in plants. EMBO Journal, 2006, 25, 4326-4337.	3.5	49
79	Novel CRISPR/Cas applications in plants: from prime editing to chromosome engineering. Transgenic Research, 2021, 30, 529-549.	1.3	49
80	A Homolog of ScRAD5 Is Involved in DNA Repair and Homologous Recombination in Arabidopsis Â. Plant Physiology, 2008, 146, 1786-1796.	2.3	48
81	Some like it sticky: targeting of the rice gene Waxy. Trends in Plant Science, 2003, 8, 51-53.	4.3	47
82	CRISPRâ€“Cas-mediated chromosome engineering for crop improvement and synthetic biology. Nature Plants, 2021, 7, 566-573.	4.7	47
83	Differences in the processing of DNA ends in Arabidopsis thaliana and tobacco: possible implications for genome evolution. Plant Molecular Biology, 2003, 51, 523-531.	2.0	46
84	Knocking out consumer concerns and regulatorâ€™s rules: efficient use of CRISPR/Cas ribonucleoprotein complexes for genome editing in cereals. Genome Biology, 2017, 18, 43.	3.8	44
85	Gene replacement by homologous recombination in plants. Plant Molecular Biology, 2002, 48, 173-82.	2.0	43
86	Involvement of the Cohesin Cofactor PDS5 (SPO76) During Meiosis and DNA Repair in Arabidopsis thaliana. Frontiers in Plant Science, 2015, 6, 1034.	1.7	42
87	Two Distinct MUS81-EME1 Complexes from Arabidopsis Process Holliday Junctions Â. Plant Physiology, 2009, 150, 1062-1071.	2.3	41
88	The role of double-strand break-induced allelic homologous recombination in somatic plant cells. Plant Journal, 2002, 32, 277-284.	2.8	40
89	The<i>Arabidopsis thaliana</i>Homolog of the Helicase RTEL1 Plays Multiple Roles in Preserving Genome Stability Â. Plant Cell, 2015, 26, 4889-4902.	3.1	40
90	The mechanism of extrachromosomal homologous DNA recombination in plant cells. Molecular Genetics and Genomics, 1991, 230, 1-7.	2.4	39

#	Article	IF	Citations
91	DNA Break Repair in Plants and Its Application for Genome Engineering. Methods in Molecular Biology, 2019, 1864, 237-266.	0.4	38
92	Enhancing <i>in planta</i> gene targeting efficiencies in Arabidopsis using temperatureâ€tolerant CRISPR/<i>Lb</i>Cas12a. Plant Biotechnology Journal, 2020, 18, 2382-2384.	4.1	38
93	Efficient gene targeting in <i>Nicotiana tabacum</i> using CRISPR/SaCas9 and temperature tolerant LbCas12a. Plant Biotechnology Journal, 2021, 19, 1314-1324.	4.1	38
94	Intron gain and loss in the evolution of the conserved eukaryotic recombination machinery. Nucleic Acids Research, 2002, 30, 5175-5181.	6.5	37
95	In Planta Somatic Homologous Recombination Assay Revisited: A Successful and Versatile, but Delicate Tool. Plant Cell, 2012, 24, 4324-4331.	3.1	34
96	Defining the roles of the N-terminal region and the helicase activity of RECQ4A in DNA repair and homologous recombination in Arabidopsis. Nucleic Acids Research, 2014, 42, 1684-1697.	6.5	34
97	Endogenous sequence patterns predispose the repair modes of <scp>CRISPR</scp>/Cas9â€induced <scp>DNA</scp> doubleâ€stranded breaks in <i>Arabidopsis thaliana</i>. Plant Journal, 2017, 92, 57-67.	2.8	34
98	AtRECQ2, a RecQ helicase homologue from <i>Arabidopsis thaliana</i>, is able to disrupt various recombinogenic DNA structures <i>in vitro</i>. Plant Journal, 2008, 55, 397-405.	2.8	33
99	Extrachromosomal homologous DNA recombination in plant cells is fast and is not affected by CpG methylation.. Molecular and Cellular Biology, 1992, 12, 3372-3379.	1.1	32
100	From gene editing to genome engineering: restructuring plant chromosomes via CRISPR/Cas. ABIOTECH, 2020, 1, 21-31.	1.8	32
101	Development of Bag-1L as a therapeutic target in androgen receptor-dependent prostate cancer. ELife, 2017, 6, .	2.8	32
102	Efficient Agrobacterium-mediated transformation of Arabidopsis thaliana using the bar gene as selectable marker. Plant Cell Reports, 1995, 14, 450-4.	2.8	31
103	Towards the ideal GMP: Homologous recombination and marker gene excision. Journal of Plant Physiology, 2003, 160, 743-754.	1.6	31
104	The RTR Complex Partner RMI2 and the DNA Helicase RTEL1 Are Both Independently Involved in Preserving the Stability of 45S rDNA Repeats in Arabidopsis thaliana. PLoS Genetics, 2016, 12, e1006394.	1.5	29
105	The RTR complex as caretaker of genome stability and its unique meiotic function in plants. Frontiers in Plant Science, 2014, 5, 33.	1.7	27
106	CRISPR/Cas-Mediated Site-Specific Mutagenesis in Arabidopsis thaliana Using Cas9 Nucleases and Paired Nickases. Methods in Molecular Biology, 2016, 1469, 111-122.	0.4	27
107	Sequence analysis of minute amounts of viroid RNA using the polymerase chain reaction (PCR). Archives of Virology, 1989, 106, 335-340.	0.9	26
108	Nucleotide sequence and secondary structure of apple scar skin viroid (ASSVd) from China. Plant Molecular Biology, 1990, 14, 1065-1067.	2.0	26

#	Article	IF	Citations
109	Application of CRISPR/Cas to Understand Cis- and Trans-Regulatory Elements in Plants. Methods in Molecular Biology, 2018, 1830, 23-40.	0.4	26
110	Different functions for the domains of the Arabidopsis thaliana RMI1 protein in DNA cross-link repair, somatic and meiotic recombination. Nucleic Acids Research, 2013, 41, 9349-9360.	6.5	25
111	Biochemical Characterization of an Exonuclease from Arabidopsis thaliana Reveals Similarities to the DNA Exonuclease of the Human Werner Syndrome Protein. Journal of Biological Chemistry, 2003, 278, 44128-44138.	1.6	24
112	An Arabidopsis FANCJ helicase homologue is required for DNA crosslink repair and rDNA repeat stability. PLoS Genetics, 2019, 15, e1008174.	1.5	24
113	The Protease WSS1A, the Endonuclease MUS81, and the Phosphodiesterase TDP1 Are Involved in Independent Pathways of DNA-protein Crosslink Repair in Plants. Plant Cell, 2019, 31, 775-790.	3.1	24
114	Nucleotide sequence of a hop stunt viroid (HSVd)Â½ isolate from grapefruit in Israel. Nucleic Acids Research, 1989, 17, 1247-1247.	6.5	22
115	Homologous recombination in plants. Experientia, 1994, 50, 277-284.	1.2	22
116	Nucleotide sequence of a hop stunt viroid isolate from the German grapevine cultivar â€˜Rieslingâ€™. Nucleic Acids Research, 1988, 16, 2730-2730.	6.5	21
117	CRISPR/Cas-mediated chromosome engineering: opening up a new avenue for plant breeding. Journal of Experimental Botany, 2021, 72, 177-183.	2.4	21
118	Breaking news: Plants mutate right on target. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11657-11658.	3.3	20
119	A SRS2 homolog from Arabidopsis thaliana disrupts recombinogenic DNA intermediates and facilitates single strand annealing. Nucleic Acids Research, 2009, 37, 7163-7176.	6.5	19
120	MHF 1 plays F anconi anaemia complementation group M protein (FANCM)â€‐dependent and FANCM â€‐independent roles in DNA repair and homologous recombination in plants. Plant Journal, 2014, 78, 822-833.	2.8	19
121	Biochemical Characterization of AtRECQ3 Reveals Significant Differences Relative to Other RecQ Helicases. Plant Physiology, 2009, 151, 1658-1666.	2.3	18
122	The RecQâ€‐like helicase HRQ1 is involved in DNA crosslink repair in Arabidopsis in a common pathway with the Fanconi anemiaâ€‐associated nuclease FAN1 and the postreplicative repair ATPase RAD5A. New Phytologist, 2018, 218, 1478-1490.	3.5	18
123	The <scp>DNA</scp> translocase <scp>RAD</scp>5A acts independently of the other main <scp>DNA</scp> repair pathways, and requires both its <scp>ATP</scp>ase and <scp>RING</scp> domain for activity in <i>Arabidopsis thaliana</i>. Plant Journal, 2017, 91, 725-740.	2.8	17
124	The topoisomerase 3Î± zinc-finger domain T1 of Arabidopsis thaliana is required for targeting the enzyme activity to Holliday junction-like DNA repair intermediates. PLoS Genetics, 2018, 14, e1007674.	1.5	17
125	Application of Aptamers Improves CRISPR-Based Live Imaging of Plant Telomeres. Frontiers in Plant Science, 2020, 11, 1254.	1.7	17
126	AtRECQ2, a RecQ-helicase homologue from Arabidopsis thaliana, is able to disrupt different recombinogenic DNA-structures in vitro. Plant Journal, 2008, 55, 080414150319983.	2.8	16

#	Article	IF	Citations
127	Use of I-Sce I to Induce DNA Double-Strand Breaks in Nicotiana. , 1999, 113, 447-451.		15
128	Green light for gene targeting in plants. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11961-11962.	3.3	15
129	DNA- and DNA-Protein-Crosslink Repair in Plants. International Journal of Molecular Sciences, 2019, 20, 4304.	1.8	15
130	Updates on gene editing and its applications. Plant Physiology, 2022, 188, 1725-1730.	2.3	15
131	Nonhomologous end joining as key to CRISPR/Cas-mediated plant chromosome engineering. Plant Physiology, 2022, 188, 1769-1779.	2.3	15
132	Neucleotide sequence of a hop stunt virold (HSVd) isolate from the German grapevine rootstock 5BB as determined by PVR-mediated sequence analysis. Nucleic Acids Research, 1989, 17, 5841-5841.	6.5	14
133	Metal-mediated DNA assembly using the ethynyl linked terpyridine ligand. Organic and Biomolecular Chemistry, 2012, 10, 46-48.	1.5	14
134	The nuclease FAN1 is involved in DNA crosslink repair in Arabidopsis thaliana independently of the nuclease MUS81. Nucleic Acids Research, 2015, 43, 3653-3666.	6.5	14
135	CRISPRâ€“Cas9-mediated chromosome engineering in Arabidopsis thaliana. Nature Protocols, 2022, 17, 1332-1358.	5.5	14
136	Nucleotide sequence of the Korean strain of hop stunt viroid (HSV). Nucleic Acids Research, 1988, 16, 8708-8708.	6.5	13
137	Advances in New Technology for Targeted Modification of Plant Genomes. , 2015, , .		13
138	The translesion polymerase Î¶ has roles dependent and independent of the nuclease MUS81 and the helicase RECQ4A in DNA damage repair in Arabidopsis. Plant Physiology, 2015, 169, pp.00806.2015.	2.3	13
139	Analysis of unknown DNA sequences by polymerase chain reaction (PCR) using a single specific primer and a standardized adaptor. Journal of Virological Methods, 1991, 32, 115-119.	1.0	12
140	Chromosomal location and genetic mapping of the mismatch repair gene homologs<i>MSH2</i>,<i>MSH3</i>, and<i>MSH6</i>in rye and wheat. Genome, 1999, 42, 1255-1257.	0.9	12
141	Using CRISPR/tt<i>Lb</i>Cas12a for <i>in planta</i> Gene Targeting in <i>A. thaliana</i>. Current Protocols in Plant Biology, 2020, 5, e20117.	2.8	12
142	Molecular and biological properties of a cloned and infectious new sequence variant of cucumber pale fruit viroid (CPFV). Nucleic Acids Research, 1988, 16, 8171-8171.	6.5	11
143	Intrachromosomal Homologous Recombination in <I>Arabidopsis thaliana</I>. , 2004, 262, 025-034.		11
144	The Rad50 genes of diploid and polyploid wheat species. Analysis of homologue and homoeologue expression and interactions with Mre11. Theoretical and Applied Genetics, 2011, 122, 251-262.	1.8	11

#	Article	IF	Citations
145	Emerging tools for synthetic biology in plants. Plant Journal, 2014, 78, 725-726.	2.8	11
146	At<scp>RAD</scp>5A is a <scp>DNA</scp> translocase harboring a <scp>HIRAN</scp> domain which confers binding to branched <scp>DNA</scp> structures and is required for <scp>DNA</scp> repair <i>inÂvivo</i>. Plant Journal, 2016, 88, 521-530.	2.8	11
147	DNA Helicases as Safekeepers of Genome Stability in Plants. Genes, 2019, 10, 1028.	1.0	11
148	Using CRISPR-Kill for organ specific cell elimination by cleavage of tandem repeats. Nature Communications, 2022, 13, 1502.	5.8	11
149	Use of the Cas9 Orthologs from Streptococcus thermophilus and Staphylococcus aureus for Non-Homologous End-Joining Mediated Site-Specific Mutagenesis in Arabidopsis thaliana. Methods in Molecular Biology, 2017, 1669, 365-376.	0.4	10
150	Sophisticated CRISPR/Cas tools for fine-tuning plant performance. Journal of Plant Physiology, 2021, 257, 153332.	1.6	10
151	CRISPR Guide RNA Design Guidelines for Efficient Genome Editing. Methods in Molecular Biology, 2020, 2166, 331-342.	0.4	10
152	Purification and Characterization of RecQ Helicases of Plants. Methods in Molecular Biology, 2009, 587, 195-209.	0.4	10
153	Substrate Specificity of Plant Recombinases Determined in Extrachromosomal Recombination Systems. , 1994, , 123-155.		10
154	Repair of DNA-protein crosslinks in plants. DNA Repair, 2020, 87, 102787.	1.3	9
155	An improved procedure for the rapid one-step-cloning of full-length viroid cDNA. Archives of Virology, 1988, 101, 137-140.	0.9	8
156	CRISPR/Cas-Mediated In Planta Gene Targeting. Methods in Molecular Biology, 2017, 1610, 3-11.	0.4	8
157	What Comparative Genomics Tells Us About the Evolution of Eukaryotic Genes Involved in Recombination. Current Genomics, 2004, 5, 109-121.	0.7	8
158	Different functional roles of RTR complex factors in DNA repair and meiosis in Arabidopsis and tomato. Plant Journal, 2021, 106, 965-977.	2.8	7
159	Different DNA repair pathways are involved in single-strand break-induced genomic changes in plants. Plant Cell, 2021, 33, 3454-3469.	3.1	7
160	Double-Strand Break Repair and Its Application to Genome Engineering in Plants. , 2015, , 1-20.		6
161	Breaking <scp>DNA</scp> in plants: how I almost missed my personal breakthrough. Plant Biotechnology Journal, 2016, 14, 437-440.	4.1	6
162	Broadening the applicability of CRISPR/Cas9 in plants. Science China Life Sciences, 2018, 61, 126-127.	2.3	5

#	Article	IF	Citations
163	Application of CRISPR/Cas-mediated base editing for directed protein evolution in plants. Science China Life Sciences, 2020, 63, 613-616.	2.3	5
164	Analyzing Somatic DNA Repair in Arabidopsis Meiotic Mutants. Methods in Molecular Biology, 2020, 2061, 359-366.	0.4	5
165	Nucleus and Genome: DNA Recombination and Repair. , 2014, , 1-37.		4
166	DNA Repair and Recombination in Plants. , 2014, , 51-93.		4
167	Double strand break (DSB) repair pathways in plants and their application in genome engineering. Burleigh Dodds Series in Agricultural Science, 2021, , 27-62.	0.1	4
168	The repair of topoisomerase 2 cleavage complexes in Arabidopsis. Plant Cell, 2022, 34, 287-301.	3.1	4
169	Live-Cell CRISPR Imaging in Plant Cells with a Telomere-Specific Guide RNA. Methods in Molecular Biology, 2020, 2166, 343-356.	0.4	4
170	Chromatin and development: a special issue. Plant Journal, 2015, 83, 1-3.	2.8	2
171	The DNAâ€dependent protease AtWSS1A suppresses persistent double strand break formation during replication. New Phytologist, 2022, 233, 1172-1187.	3.5	2
172	A homologue of the breast cancer-associated gene BARD1 is involved in DNA repair in plants. EMBO Journal, 2007, 26, 2227-2227.	3.5	0
173	DNA repair meets climate change. Nature Plants, 2020, 6, 1398-1399.	4.7	0
174	Efficient Homologous Recombination-Mediated in Planta Gene Targeting by Egg-Cell-Specific Expression of Staphylococcus aureus Cas9 from Arabidopsis. Springer Protocols, 2020, , 25-34.	0.1	0