Thomas D Petes

List of Publications by Year
in descending order

85 papers	6,989 citations	71102 41 h-index	64796 79 g-index
90 all docs	90 docs citations	90 times ranked	5036 citing authors

#	Article	IF	Citations
1	Destabilization of tracts of simple repetitive DNA in yeast by mutations affecting DNA mismatch repair. Nature, 1993, 365, 274-276.	27.8	1,061
2	Meiotic recombination hot spots and cold spots. Nature Reviews Genetics, 2001, 2, 360-369.	16.3	469
3	TEL1, a gene involved in controlling telomere length in S. cerevisiae, is homologous to the human ataxia telangiectasia gene. Cell, 1995, 82, 823-829.	28.9	401
4	Chromosomal Translocations in Yeast Induced by Low Levels of DNA Polymerase. Cell, 2005, 120, 587-598.	28.9	282
5	Interactions of <i>TLC1</i> (Which Encodes the RNA Subunit of Telomerase), <i>TEL1</i>, and <i>MEC1</i> in Regulating Telomere Length in the Yeast <i>Saccharomyces cerevisiae</i>. Molecular and Cellular Biology, 1999, 19, 6065-6075.	2.3	248
6	Double-strand breaks associated with repetitive DNA can reshape the genome. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11845-11850.	7.1	216
7	Palindromic sequences in heteroduplex DNA inhibit mismatch repair in yeast. Nature, 1989, 340, 318-320.	27.8	193
8	Destabilization of Yeast Micro- and Minisatellite DNA Sequences by Mutations Affecting a Nuclease Involved in Okazaki Fragment Processing (<i>rad27</i>) and DNA Polymerase Î´ (<i>pol3-t</i>). Molecular and Cellular Biology, 1998, 18, 2779-2788.	2.3	189
9	CHROMOSOMAL TRANSLOCATIONS GENERATED BY HIGH-FREQUENCY MEIOTIC RECOMBINATION BETWEEN REPEATED YEAST GENES. Genetics, 1986, 114, 731-752.	2.9	178
10	Repair of DNA loops involves DNA-mismatch and nucleotide-excision repair proteins. Nature, 1997, 387, 929-931.	27.8	161
11	The Pattern of Gene Amplification Is Determined by the Chromosomal Location of Hairpin-Capped Breaks. Cell, 2006, 125, 1283-1296.	28.9	144
12	Recombination between retrotransposons as a source of chromosome rearrangements in the yeast Saccharomyces cerevisiae. DNA Repair, 2006, 5, 1010-1020.	2.8	129
13	Chromosome rearrangements via template switching between diverged repeated sequences. Genes and Development, 2014, 28, 2394-2406.	5.9	114
14	A Fine-Structure Map of Spontaneous Mitotic Crossovers in the Yeast Saccharomyces cerevisiae. PLoS Genetics, 2009, 5, e1000410.	3.5	104
15	Regulation of Genome Stability by <i>TEL1</i> and <i>MEC1</i>, Yeast Homologs of the Mammalian ATM and ATR Genes. Genetics, 2002, 161, 493-507.	2.9	103
16	Destabilization of Simple Repetitive DNA Sequences by Transcription in Yeast. Genetics, 1996, 143, 713-721.	2.9	99
17	Chromosome fragility at GAA tracts in yeast depends on repeat orientation and requires mismatch repair. EMBO Journal, 2008, 27, 2896-2906.	7.8	98
18	Inverted DNA Repeats Channel Repair of Distant Double-Strand Breaks into Chromatid Fusions and Chromosomal Rearrangements. Molecular and Cellular Biology, 2007, 27, 2601-2614.	2.3	96

#	Article	IF	Citations
19	A promoter deletion reduces the rate of mitotic, but not meiotic, recombination at the HIS4 locus in yeast. Current Genetics, 1992, 21, 109-116.	1.7	93
20	Genetic regulation of telomere-telomere fusions in the yeast Saccharomyces cerevisae. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 10854-10859.	7.1	92
21	GC content elevates mutation and recombination rates in the yeast <i>Saccharomyces cerevisiae</i>. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7109-E7118.	7.1	92
22	Dependence of the Regulation of Telomere Length on the Type of Subtelomeric Repeat in the Yeast Saccharomyces cerevisiae. Genetics, 1999, 152, 1531-1541.	2.9	88
23	Increased Rates of Genomic Deletions Generated by Mutations in the Yeast Gene Encoding DNA Polymerase Î´ or by Decreases in the Cellular Levels of DNA Polymerase Î´. Molecular and Cellular Biology, 2000, 20, 7490-7504.	2.3	87
24	High-Resolution Mapping of Spontaneous Mitotic Recombination Hotspots on the 1.1 Mb Arm of Yeast Chromosome IV. PLoS Genetics, 2013, 9, e1003434.	3.5	84
25	Variation in efficiency of DNA mismatch repair at different sites in the yeast genome. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8639-8643.	7.1	79
26	Genome-wide high-resolution mapping of chromosome fragile sites in <i>Saccharomyces cerevisiae</i>. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2210-8.	7.1	76
27	Gene Copy-Number Variation in Haploid and Diploid Strains of the Yeast <i>Saccharomyces cerevisiae</i>. Genetics, 2013, 193, 785-801.	2.9	73
28	Loss of a histone deacetylase dramatically alters the genomic distribution of Spo11p-catalyzed DNA breaks in Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3955-3960.	7.1	72
29	High-Resolution Genome-Wide Analysis of Irradiated (UV and Î³-Rays) Diploid Yeast Cells Reveals a High Frequency of Genomic Loss of Heterozygosity (LOH) Events. Genetics, 2012, 190, 1267-1284.	2.9	71
30	Decreased Meiotic Intergenic Recombination and Increased Meiosis I Nondisjunction in exo1 Mutants of Saccharomyces cerevisiae. Genetics, 2000, 156, 1549-1557.	2.9	71
31	Genome rearrangements caused by interstitial telomeric sequences in yeast. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19866-19871.	7.1	66
32	Selection and analysis of spontaneous reciprocal mitotic cross-overs in Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12819-12824.	7.1	65
33	Meiotic Recombination Involving Heterozygous Large Insertions in <i>Saccharomyces cerevisiae</i>: Formation and Repair of Large, Unpaired DNA Loops. Genetics, 2001, 158, 1457-1476.	2.9	65
34	Global Analysis of the Relationship between the Binding of the Bas1p Transcription Factor and Meiosis-Specific Double-Strand DNA Breaks in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2006, 26, 1014-1027.	2.3	64
35	Patterns of Heteroduplex Formation Associated With the Initiation of Meiotic Recombination in the Yeast <i>Saccharomyces cerevisiae</i>. Genetics, 2003, 165, 47-63.	2.9	63
36	Elevated Genome-Wide Instability in Yeast Mutants Lacking RNase H Activity. Genetics, 2015, 201, 963-975.	2.9	60

#	Article	IF	Citations
37	Mre11-Sae2 and RPA Collaborate to Prevent Palindromic Gene Amplification. Molecular Cell, 2015, 60, 500-508.	9.7	59
38	Genome-Wide High-Resolution Mapping of UV-Induced Mitotic Recombination Events in Saccharomyces cerevisiae. PLoS Genetics, 2013, 9, e1003894.	3.5	57
39	Genome-wide mapping of spontaneous genetic alterations in diploid yeast cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28191-28200.	7.1	52
40	Global analysis of genomic instability caused by DNA replication stress in <i>Saccharomyces cerevisiae</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E8114-E8121.	7.1	50
41	Fine-Structure Mapping of Meiosis-Specific Double-Strand DNA Breaks at a Recombination Hotspot Associated With an Insertion of Telomeric Sequences Upstream of the HIS4 Locus in Yeast. Genetics, 1996, 143, 1115-1125.	2.9	50
42	Reduced Levels of DNA Polymerase Î´ Induce Chromosome Fragile Site Instability in Yeast. Molecular and Cellular Biology, 2008, 28, 5359-5368.	2.3	49
43	Guidelines for DNA recombination and repair studies: Cellular assays of DNA repair pathways. Microbial Cell, 2019, 6, 1-64.	3.2	47
44	A Mutation of the Yeast Gene Encoding PCNA Destabilizes Both Microsatellite and Minisatellite DNA Sequences. Genetics, 1999, 151, 511-519.	2.9	47
45	Structures of Naturally Evolved <i>CUP1</i> Tandem Arrays in Yeast Indicate That These Arrays Are Generated by Unequal Nonhomologous Recombination. G3: Genes, Genomes, Genetics, 2014, 4, 2259-2269.	1.8	46
46	Unequal sister-strand recombination within yeast ribosomal DNA does not require the RAD 52 gene product. Current Genetics, 1981, 3, 125-132.	1.7	43
47	Chromosome rearrangements and aneuploidy in yeast strains lacking both Tel1p and Mec1p reflect deficiencies in two different mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11465-11470.	7.1	42
48	High-Resolution Mapping of Two Types of Spontaneous Mitotic Gene Conversion Events in <i>Saccharomyces cerevisiae</i>. Genetics, 2014, 198, 181-192.	2.9	41
49	Mitotic gene conversion events induced in G1-synchronized yeast cells by gamma rays are similar to spontaneous conversion events. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7383-7388.	7.1	40
50	Context Dependence of Meiotic Recombination Hotspots in Yeast: The Relationship Between Recombination Activity of a Reporter Construct and Base Composition. Genetics, 2002, 162, 2049-2052.	2.9	40
51	Maximal Stimulation of Meiotic Recombination by a Yeast Transcription Factor Requires the Transcription Activation Domain and a DNA-Binding Domain. Genetics, 1999, 152, 101-115.	2.9	38
52	Friedreich's Ataxia (GAA)nâ€¢(TTC)n Repeats Strongly Stimulate Mitotic Crossovers in Saccharomyces cerevisae. PLoS Genetics, 2011, 7, e1001270.	3.5	36
53	Nanopore sequencing of complex genomic rearrangements in yeast reveals mechanisms of repeat-mediated double-strand break repair. Genome Research, 2017, 27, 2072-2082.	5.5	36
54	Conversion-Type and Restoration-Type Repair of DNA Mismatches Formed During Meiotic Recombination in Saccharomyces cerevisiae. Genetics, 1998, 149, 1693-1705.	2.9	31

#	Article	IF	Citations
55	High Rates of â€œUnselectedâ€•Aneuploidy and Chromosome Rearrangements in<i>tel1 mec1</i>Haploid Yeast Strains. Genetics, 2008, 179, 237-247.	2.9	28
56	Alleles of the Yeast PMS1 Mismatch-Repair Gene That Differentially Affect Recombination- and Replication-Related Processes. Genetics, 2002, 162, 1131-1145.	2.9	28
57	Identification of a Mutant DNA Polymerase Î´ in <i>Saccharomyces cerevisiae</i> With an Antimutator Phenotype for Frameshift Mutations. Genetics, 2001, 158, 177-186.	2.9	27
58	Role of Proliferating Cell Nuclear Antigen Interactions in the Mismatch Repair-Dependent Processing of Mitotic and Meiotic Recombination Intermediates in Yeast. Genetics, 2008, 178, 1221-1236.	2.9	26
59	Low Levels of DNA Polymerase Alpha Induce Mitotic and Meiotic Instability in the Ribosomal DNA Gene Cluster of Saccharomyces cerevisiae. PLoS Genetics, 2008, 4, e1000105.	3.5	26
60	Ninety-Six Haploid Yeast Strains With Individual Disruptions of Open Reading Frames Between YOR097C and YOR192C, Constructed for the Saccharomyces Genome Deletion Project, Have an Additional Mutation in the Mismatch Repair Gene MSH3. Genetics, 2007, 177, 1951-1953.	2.9	24
61	Genome-Destabilizing Effects Associated with Top1 Loss or Accumulation of Top1 Cleavage Complexes in Yeast. PLoS Genetics, 2015, 11, e1005098.	3.5	24
62	Genomic deletions and point mutations induced in Saccharomyces cerevisiae by the trinucleotide repeats (GAAÂ·TTC) associated with Friedreich's ataxia. DNA Repair, 2013, 12, 10-17.	2.8	23
63	Reciprocal uniparental disomy in yeast. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9947-9952.	7.1	22
64	Genome Instability Induced by Low Levels of Replicative DNA Polymerases in Yeast. Genes, 2018, 9, 539.	2.4	22
65	Analysis of APOBEC-induced mutations in yeast strains with low levels of replicative DNA polymerases. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9440-9450.	7.1	22
66	Genetic Control of Genomic Alterations Induced in Yeast by Interstitial Telomeric Sequences. Genetics, 2018, 209, 425-438.	2.9	21
67	Genome-wide analysis of genomic alterations induced by oxidative DNA damage in yeast. Nucleic Acids Research, 2019, 47, 3521-3535.	14.5	21
68	Analysis of the Proteins Involved in the in Vivo Repair of Baseâ€“Base Mismatches and Four-Base Loops Formed During Meiotic Recombination in the Yeast Saccharomyces cerevisiae. Genetics, 2006, 173, 1223-1239.	2.9	20
69	Chromosome Aberrations Resulting From Double-Strand DNA Breaks at a Naturally Occurring Yeast Fragile Site Composed of Inverted Ty Elements Are Independent of Mre11p and Sae2p. Genetics, 2009, 183, 423-439.	2.9	20
70	The <i>Saccharomyces cerevisiae</i> Suppressor of Choline Sensitivity (<i>SCS2</i>) Gene Is a Multicopy Suppressor of <i>mec1</i> Telomeric Silencing Defects. Genetics, 2001, 158, 145-154.	2.9	20
71	The Role of Exo1p Exonuclease in DNA End Resection to Generate Gene Conversion Tracts in Saccharomyces cerevisiae. Genetics, 2014, 197, 1097-1109.	2.9	18
72	Mitotic recombination in yeast: what we know and what we donâ€™t know. Current Opinion in Genetics and Development, 2021, 71, 78-85.	3.3	18

#	Article	IF	Citations
73	High-resolution mapping of heteroduplex DNA formed during UV-induced and spontaneous mitotic recombination events in yeast. ELife, 2017, 6, .	6.0	18
74	Properties of Mitotic and Meiotic Recombination in the Tandemly-Repeated CUP1 Gene Cluster in the Yeast Saccharomyces cerevisiae. Genetics, 2017, 206, 785-800.	2.9	17
75	Effects of Temperature on the Meiotic Recombination Landscape of the Yeast <i>Saccharomyces cerevisiae</i>. MBio, 2017, 8, .	4.1	17
76	Haploidization in Saccharomyces cerevisiae Induced by a Deficiency in Homologous Recombination. Genetics, 2012, 191, 279-284.	2.9	16
77	Nonrandom Distribution of Interhomolog Recombination Events Induced by Breakage of a Dicentric Chromosome in<i>Saccharomyces cerevisiae</i>. Genetics, 2013, 194, 69-80.	2.9	16
78	Recombination between Homologous Chromosomes Induced by Unrepaired UV-Generated DNA Damage Requires Mus81p and Is Suppressed by Mms2p. PLoS Genetics, 2015, 11, e1005026.	3.5	12
79	High-Resolution Mapping of Homologous Recombination Events in rad3 Hyper-Recombination Mutants in Yeast. PLoS Genetics, 2016, 12, e1005938.	3.5	8
80	The Transient Inactivation of the Master Cell Cycle Phosphatase Cdc14 Causes Genomic Instability in Diploid Cells of <i>Saccharomyces cerevisiae</i>. Genetics, 2015, 200, 755-769.	2.9	7
81	Global genomic instability caused by reduced expression of DNA polymerase Îµ in yeast. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119588119.	7.1	5
82	Cytological and genetic consequences for the progeny of a mitotic catastrophe provoked by Topoisomerase II deficiency. Aging, 2019, 11, 11686-11721.	3.1	4
83	The Yeast HSM3 Gene Is Not Involved in DNA Mismatch Repair in Rapidly Dividing Cells. Genetics, 2000, 154, 491-493.	2.9	4
84	The fidelity of DNA replication, particularly on GC-rich templates, is reduced by defects of the Feâ€“S cluster in DNA polymerase Î´. Nucleic Acids Research, 2021, 49, 5623-5636.	14.5	3
85	Ribodysgenesis: sudden genome instability in the yeast <i>Saccharomyces cerevisiae</i> arising from RNase H2 cleavage at genomic-embedded ribonucleotides. Nucleic Acids Research, 0, , .	14.5	2