Louise Prakash

List of Publications by Citations

222 papers	19,601 citations	78 h-index	133 g-index
223 ext. papers	20,658 ext. citations	10.9 avg, IF	6.51 L-index

#	Paper	IF	Citations
222	Eukaryotic translesion synthesis DNA polymerases: specificity of structure and function. *Annual Review of Biochemistry*, **2005**, 74, 317-53	29.1	821
221	The Y-family of DNA polymerases. *Molecular Cell*, **2001**, 8, 7-8	17.6	737
220	hRAD30 mutations in the variant form of xeroderma pigmentosum. *Science*, **1999**, 285, 263-5	33.3	653
219	Eukaryotic polymerases iota and zeta act sequentially to bypass DNA lesions. *Nature*, **2000**, 406, 1015-9	50.4	573
218	Yeast Saccharomyces cerevisiae selectable markers in pUC18 polylinkers. *Yeast*, **1990**, 6, 363-6	3.4	380
217	Fidelity of human DNA polymerase eta. *Journal of Biological Chemistry*, **2000**, 275, 7447-50	5.4	327
216	Structure of the catalytic core of S. cerevisiae DNA polymerase eta: implications for translesion DNA synthesis. *Molecular Cell*, **2001**, 8, 417-26	17.6	309
215	Efficient and accurate replication in the presence of 7,8-dihydro-8-oxoguanine by DNA polymerase eta. *Nature Genetics*, **2000**, 25, 458-61	36.3	305
214	Roles of yeast DNA polymerases delta and zeta and of Rev1 in the bypass of abasic sites. *Genes and Development*, **2001**, 15, 945-54	12.6	279
213	Human xeroderma pigmentosum group D gene encodes a DNA helicase. *Nature*, **1993**, 365, 852-5	50.4	276
212	Nucleotide excision repair in yeast. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **2000**, 451, 13-24	3.3	271
211	Replication by human DNA polymerase-iota occurs by Hoogsteen base-pairing. *Nature*, **2004**, 430, 377-80	50.4	270
210	Translesion DNA synthesis in eukaryotes: a one- or two-polymerase affair. *Genes and Development*, **2002**, 16, 1872-83	12.6	265
209	Eukaryotic DNA polymerases: proposal for a revised nomenclature. *Journal of Biological Chemistry*, **2001**, 276, 43487-90	5.4	264
208	Characterization of postreplication repair in Saccharomyces cerevisiae and effects of rad6, rad18, rev3 and rad52 mutations. *Molecular Genetics and Genomics*, **1981**, 184, 471-8		242
207	Yeast DNA repair proteins Rad6 and Rad18 form a heterodimer that has ubiquitin conjugating, DNA binding, and ATP hydrolytic activities. *Journal of Biological Chemistry*, **1997**, 272, 23360-5	5.4	229
206	Yeast Rad5 protein required for postreplication repair has a DNA helicase activity specific for replication fork regression. *Molecular Cell*, **2007**, 28, 167-75	17.6	225

205	Effects of the RAD52 Gene on Recombination in SACCHAROMYCES CEREVISIAE. *Genetics*, **1980**, 94, 31-50	4	215
204	Physical and functional interactions of human DNA polymerase eta with PCNA. *Molecular and Cellular Biology*, **2001**, 21, 7199-206	4.8	214
203	Rev1 employs a novel mechanism of DNA synthesis using a protein template. *Science*, **2005**, 309, 2219-22	33.3	199
202	Structural basis of high-fidelity DNA synthesis by yeast DNA polymerase delta. *Nature Structural and Molecular Biology*, **2009**, 16, 979-86	17.6	197
201	Human DNA polymerase kappa encircles DNA: implications for mismatch extension and lesion bypass. *Molecular Cell*, **2007**, 25, 601-14	17.6	195
200	Isolation and characterization of MMS-sensitive mutants of Saccharomyces cerevisiae. *Genetics*, **1977**, 86, 33-55	4	193
199	Reconstitution of yeast nucleotide excision repair with purified Rad proteins, replication protein A, and transcription factor TFIIH. *Journal of Biological Chemistry*, **1995**, 270, 12973-6	5.4	187
198	Interaction with PCNA is essential for yeast DNA polymerase eta function. *Molecular Cell*, **2001**, 8, 407-15	17.6	180
197	Human SHPRH is a ubiquitin ligase for Mms2-Ubc13-dependent polyubiquitylation of proliferating cell nuclear antigen. *Proceedings of the National Academy of Sciences of the United States of America* , **2006**, 103, 18107-12	11.5	177
196	RAD25 is a DNA helicase required for DNA repair and RNA polymerase II transcription. *Nature*, **1994** , 369, 578-81	50.4	176
195	Role of DNA polymerase eta in the bypass of a (6-4) TT photoproduct. *Molecular and Cellular Biology*, **2001**, 21, 3558-63	4.8	175
194	Opposing effects of ubiquitin conjugation and SUMO modification of PCNA on replicational bypass of DNA lesions in Saccharomyces cerevisiae. *Molecular and Cellular Biology*, **2004**, 24, 4267-74	4.8	174
193	Human HLTF functions as a ubiquitin ligase for proliferating cell nuclear antigen polyubiquitination. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 3768-73	11.5	169
192	Stimulation of DNA synthesis activity of human DNA polymerase kappa by PCNA. *Molecular and Cellular Biology*, **2002**, 22, 784-91	4.8	159
191	Mutagenic specificity: reversion of iso-1-cytochrome c mutants of yeast. *Journal of Molecular Biology*, **1973**, 79, 65-82	6.5	157
190	Evidence for involvement of yeast proliferating cell nuclear antigen in DNA mismatch repair. *Journal of Biological Chemistry*, **1996**, 271, 27987-90	5.4	155
189	Requirement of RAD5 and MMS2 for postreplication repair of UV-damaged DNA in Saccharomyces cerevisiae. *Molecular and Cellular Biology*, **2002**, 22, 2419-26	4.8	152
188	Requirement of the yeast MSH3 and MSH6 genes for MSH2-dependent genomic stability. *Journal of Biological Chemistry*, **1996**, 271, 7285-8	5.4	150

187	Fidelity and processivity of Saccharomyces cerevisiae DNA polymerase eta. *Journal of Biological Chemistry*, **1999**, 274, 36835-8	5.4	148
186	Conditional lethality of null mutations in RTH1 that encodes the yeast counterpart of a mammalian 5′ to 3′ exonuclease required for lagging strand DNA synthesis in reconstituted systems. *Journal of Biological Chemistry*, **1995**, 270, 4193-6	5.4	147
185	Repair of pyrimidine dimers in nuclear and mitochondrial DNA of yeast irradiated with low doses of ultraviolet light. *Journal of Molecular Biology*, **1975**, 98, 781-95	6.5	145
184	Human DINB1-encoded DNA polymerase kappa is a promiscuous extender of mispaired primer termini. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 1910-4	11.5	144
183	Pol31 and Pol32 subunits of yeast DNA polymerase δ are also essential subunits of DNA polymerase δ *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 12455-60	11.5	140
182	The Saccharomyces cerevisiae RAD18 gene encodes a protein that contains potential zinc finger domains for nucleic acid binding and a putative nucleotide binding sequence. *Nucleic Acids Research* , **1988**, 16, 7119-31	20.1	140
181	Role of human DNA polymerase kappa as an extender in translesion synthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 16000-5	11.5	139
180	A Major Role of DNA Polymerase δ in Replication of Both the Leading and Lagging DNA Strands. *Molecular Cell*, **2015**, 59, 163-175	17.6	137
179	DNA repair gene RAD3 of S. cerevisiae is essential for transcription by RNA polymerase II. *Nature*, **1994**, 367, 91-4	50.4	133
178	Lack of chemically induced mutation in repair-deficient mutants of yeast. *Genetics*, **1974**, 78, 1101-18	4	129
177	Yeast Rev1 protein is a G template-specific DNA polymerase. *Journal of Biological Chemistry*, **2002**, 277, 15546-51	5.4	127
176	Requirement of yeast SGS1 and SRS2 genes for replication and transcription. *Science*, **1999**, 286, 2339-42	33.3	125
175	Yeast excision repair gene RAD2 encodes a single-stranded DNA endonuclease. *Nature*, **1993**, 366, 365-8	50.4	125
174	Binding of insertion/deletion DNA mismatches by the heterodimer of yeast mismatch repair proteins MSH2 and MSH3. *Current Biology*, **1996**, 6, 1185-7	6.3	124
173	Structural basis for the suppression of skin cancers by DNA polymerase eta. *Nature*, **2010**, 465, 1039-43	50.4	121
172	Requirement of DNA polymerase eta for error-free bypass of UV-induced CC and TC photoproducts. *Molecular and Cellular Biology*, **2001**, 21, 185-8	4.8	121
171	Highly error-free role of DNA polymerase eta in the replicative bypass of UV-induced pyrimidine dimers in mouse and human cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 18219-24	11.5	120
170	Replication past O(6)-methylguanine by yeast and human DNA polymerase eta. *Molecular and Cellular Biology*, **2000**, 20, 8001-7	4.8	120

169	Yeast DNA polymerase eta utilizes an induced-fit mechanism of nucleotide incorporation. *Cell*, **2001**, 107, 917-27	56.2	116
168	Human DNA polymerase iota incorporates dCTP opposite template G via a G.C + Hoogsteen base pair. *Structure*, **2005**, 13, 1569-77	5.2	113
167	Ubiquitylation of yeast proliferating cell nuclear antigen and its implications for translesion DNA synthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 6477-82	11.5	110
166	Efficient and error-free replication past a minor-groove DNA adduct by the sequential action of human DNA polymerases iota and kappa. *Molecular and Cellular Biology*, **2004**, 24, 5687-93	4.8	107
165	Requirement of mismatch repair genes MSH2 and MSH3 in the RAD1-RAD10 pathway of mitotic recombination in Saccharomyces cerevisiae. *Genetics*, **1996**, 142, 727-36	4	107
164	Regulation of polymerase exchange between Poleta and Poldelta by monoubiquitination of PCNA and the movement of DNA polymerase holoenzyme. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 5361-6	11.5	104
163	ATP-dependent assembly of a ternary complex consisting of a DNA mismatch and the yeast MSH2-MSH6 and MLH1-PMS1 protein complexes. *Journal of Biological Chemistry*, **1998**, 273, 9837-41	5.4	104
162	Complex formation with Rev1 enhances the proficiency of Saccharomyces cerevisiae DNA polymerase zeta for mismatch extension and for extension opposite from DNA lesions. *Molecular and Cellular Biology*, **2006**, 26, 9555-63	4.8	102
161	Requirement of DNA polymerase activity of yeast Rad30 protein for its biological function. *Journal of Biological Chemistry*, **1999**, 274, 15975-7	5.4	100
160	Hoogsteen base pair formation promotes synthesis opposite the 1,N6-ethenodeoxyadenosine lesion by human DNA polymerase iota. *Nature Structural and Molecular Biology*, **2006**, 13, 619-25	17.6	98
159	Yeast RAD14 and human xeroderma pigmentosum group A DNA-repair genes encode homologous proteins. *Nature*, **1992**, 355, 555-8	50.4	98
158	Roles of PCNA-binding and ubiquitin-binding domains in human DNA polymerase eta in translesion DNA synthesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 17724-9	11.5	95
157	Effect of Genes Controlling Radiation Sensitivity on Chemically Induced Mutations in SACCHAROMYCES CEREVISIAE. *Genetics*, **1976**, 83, 285-301	4	95
156	Crystal structure of the catalytic core of human DNA polymerase kappa. *Structure*, **2004**, 12, 1395-404	5.2	94
155	Yeast DNA polymerase zeta is an efficient extender of primer ends opposite from 7,8-dihydro-8-Oxoguanine and O6-methylguanine. *Molecular and Cellular Biology*, **2003**, 23, 1453-9	4.8	93
154	Inefficient bypass of an abasic site by DNA polymerase eta. *Journal of Biological Chemistry*, **2001**, 276, 6861-6	5.4	93
153	The stalling of transcription at abasic sites is highly mutagenic. *Molecular and Cellular Biology*, **2003**, 23, 382-8	4.8	91
152	The nucleotide sequence of the RAD3 gene of Saccharomyces cerevisiae: a potential adenine nucleotide binding amino acid sequence and a nonessential acidic carboxyl terminal region. *Nucleic Acids Research*, **1985**, 13, 2357-72	20.1	91

151	Efficient and error-free replication past a minor-groove N2-guanine adduct by the sequential action of yeast Rev1 and DNA polymerase zeta. *Molecular and Cellular Biology*, **2004**, 24, 6900-6	4.8	88
150	Affinity of yeast nucleotide excision repair factor 2, consisting of the Rad4 and Rad23 proteins, for ultraviolet damaged DNA. *Journal of Biological Chemistry*, **1998**, 273, 31541-6	5.4	88
149	An affinity of human replication protein A for ultraviolet-damaged DNA. *Journal of Biological Chemistry*, **1996**, 271, 11607-10	5.4	87
148	Mms2-Ubc13-dependent and -independent roles of Rad5 ubiquitin ligase in postreplication repair and translesion DNA synthesis in Saccharomyces cerevisiae. *Molecular and Cellular Biology*, **2006**, 26, 7783-90	4.8	85
147	Requirement of yeast RAD2, a homolog of human XPG gene, for efficient RNA polymerase II transcription. implications for Cockayne syndrome. *Cell*, **2002**, 109, 823-34	56.2	83
146	Yeast DNA polymerase zeta (zeta) is essential for error-free replication past thymine glycol. *Genes and Development*, **2003**, 17, 77-87	12.6	81
145	Requirement of RAD52 group genes for postreplication repair of UV-damaged DNA in Saccharomyces cerevisiae. *Molecular and Cellular Biology*, **2007**, 27, 7758-64	4.8	79
144	Requirement of Watson-Crick hydrogen bonding for DNA synthesis by yeast DNA polymerase eta. *Molecular and Cellular Biology*, **2003**, 23, 5107-12	4.8	78
143	Enhancement of MSH2-MSH3-mediated mismatch recognition by the yeast MLH1-PMS1 complex. *Current Biology*, **1997**, 7, 790-3	6.3	76
142	Translesion synthesis past acrolein-derived DNA adduct, gamma -hydroxypropanodeoxyguanosine, by yeast and human DNA polymerase eta. *Journal of Biological Chemistry*, **2003**, 278, 784-90	5.4	76
141	Nucleotide excision repair in yeast is mediated by sequential assembly of repair factors and not by a pre-assembled repairosome. *Journal of Biological Chemistry*, **1996**, 271, 8903-10	5.4	74
140	Yeast open reading frame YCR14C encodes a DNA beta-polymerase-like enzyme. *Nucleic Acids Research*, **1993**, 21, 5301-7	20.1	72
139	Yeast Rad7-Rad16 complex, specific for the nucleotide excision repair of the nontranscribed DNA strand, is an ATP-dependent DNA damage sensor. *Journal of Biological Chemistry*, **1997**, 272, 21665-8	5.4	71
138	Evidence for the involvement of nucleotide excision repair in the removal of abasic sites in yeast. *Molecular and Cellular Biology*, **2000**, 20, 3522-8	4.8	70
137	Mechanism of nucleotide incorporation opposite a thymine-thymine dimer by yeast DNA polymerase eta. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 12093-8	11.5	69
136	Complex formation of yeast Rev1 and Rev7 proteins: a novel role for the polymerase-associated domain. *Molecular and Cellular Biology*, **2005**, 25, 9734-40	4.8	69
135	Yeast DNA repair protein RAD23 promotes complex formation between transcription factor TFIIH and DNA damage recognition factor RAD14. *Journal of Biological Chemistry*, **1995**, 270, 8385-8	5.4	69
134	Defective excision of pyrimidine dimers and interstrand DNA crosslinks in rad7 and rad23 mutants of Saccharomyces cerevisiae. *Molecular Genetics and Genomics*, **1982**, 188, 235-9		69

133	Structural basis for cisplatin DNA damage tolerance by human polymerase during cancer chemotherapy. *Nature Structural and Molecular Biology*, **2012**, 19, 628-32	17.6	68
132	Biochemical evidence for the requirement of Hoogsteen base pairing for replication by human DNA polymerase iota. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 10466-71	11.5	68
131	Repair of pyrimidine dimers in radiation-sensitive mutants rad3, rad4, rad6 and rad9 of Saccharomyces cerevisiae. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **1977**, 45, 13-20	3.3	68
130	Expression of the Saccharomyces cerevisiae DNA repair gene RAD6 that encodes a ubiquitin conjugating enzyme, increases in response to DNA damage and in meiosis but remains constant during the mitotic cell cycle. *Nucleic Acids Research*, **1990**, 18, 771-8	20.1	67
129	Dpo4 is hindered in extending a G.T mismatch by a reverse wobble. *Nature Structural and Molecular Biology*, **2004**, 11, 457-62	17.6	66
128	Recombination and mutagenesis in rad6 mutants of Saccharomyces cerevisiae: evidence for multiple functions of the RAD6 gene. *Molecular Genetics and Genomics*, **1981**, 184, 410-5		66
127	Mutational specificity and genetic control of replicative bypass of an abasic site in yeast. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 1170-5	11.5	65
126	Error-free replicative bypass of (6-4) photoproducts by DNA polymerase zeta in mouse and human cells. *Genes and Development*, **2010**, 24, 123-8	12.6	63
125	ELA1 and CUL3 are required along with ELC1 for RNA polymerase II polyubiquitylation and degradation in DNA-damaged yeast cells. *Molecular and Cellular Biology*, **2007**, 27, 3211-6	4.8	60
124	Repair of alkylation damage: stability of methyl groups in Bacillus subtilis treated with methyl methanesulfonate. *Journal of Bacteriology*, **1970**, 102, 760-6	3.5	60
123	3Tphosphodiesterase and 3T->5Texonuclease activities of yeast Apn2 protein and requirement of these activities for repair of oxidative DNA damage. *Molecular and Cellular Biology*, **2001**, 21, 1656-61	4.8	59
122	An incoming nucleotide imposes an anti to syn conformational change on the templating purine in the human DNA polymerase-iota active site. *Structure*, **2006**, 14, 749-55	5.2	58
121	Three additional genes involved in pyrimidine dimer removal in Saccharomyces cerevisiae: RAD7, RAD14 and MMS19. *Molecular Genetics and Genomics*, **1979**, 176, 351-9		58
120	Requirement for yeast RAD26, a homolog of the human CSB gene, in elongation by RNA polymerase II. *Molecular and Cellular Biology*, **2001**, 21, 8651-6	4.8	57
119	Structure of the human Rev1-DNA-dNTP ternary complex. *Journal of Molecular Biology*, **2009**, 390, 699-709	3.5	56
118	Crystal structure of the Saccharomyces cerevisiae ubiquitin-conjugating enzyme Rad6 at 2.6 A resolution. *Journal of Biological Chemistry*, **1998**, 273, 6271-6	5.4	56
117	Human DNA polymerase iota utilizes different nucleotide incorporation mechanisms dependent upon the template base. *Molecular and Cellular Biology*, **2004**, 24, 936-43	4.8	55
116	Apurinic endonuclease activity of yeast Apn2 protein. *Journal of Biological Chemistry*, **2000**, 275, 22427-34	5.4	55

115	Reconstitution of TFIIH and requirement of its DNA helicase subunits, Rad3 and Rad25, in the incision step of nucleotide excision repair. *Journal of Biological Chemistry*, **1996**, 271, 10821-6	5.4	55
114	Error-free replicative bypass of thymine glycol by the combined action of DNA polymerases kappa and zeta in human cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 14116-21	11.5	54
113	RAD26, the yeast homolog of human Cockayne's syndrome group B gene, encodes a DNA-dependent ATPase. *Journal of Biological Chemistry*, **1996**, 271, 18314-7	5.4	54
112	Transcript levels of the Saccharomyces cerevisiae DNA repair gene RAD18 increase in UV irradiated cells and during meiosis but not during the mitotic cell cycle. *Nucleic Acids Research*, **1991**, 19, 893-8	20.1	53
111	Specific induction of transitions and transversions of G-C base pairs by 4-nitroquinoline-1-oxide in iso-1-cytochrome c mutants of yeast. *Journal of Molecular Biology*, **1974**, 85, 51-65	6.5	53
110	PCNA binding domains in all three subunits of yeast DNA polymerase δ modulate its function in DNA replication. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 17927-32	11.5	52
109	Protein-template-directed synthesis across an acrolein-derived DNA adduct by yeast Rev1 DNA polymerase. *Structure*, **2008**, 16, 239-45	5.2	52
108	Stimulation of 3′->5′exonuclease and 3′-phosphodiesterase activities of yeast apn2 by proliferating cell nuclear antigen. *Molecular and Cellular Biology*, **2002**, 22, 6480-6	4.8	51
107	Role of yeast Rth1 nuclease and its homologs in mutation avoidance, DNA repair, and DNA replication. *Current Genetics*, **1998**, 34, 21-9	2.9	50
106	Requirement of Rad5 for DNA polymerase zeta-dependent translesion synthesis in Saccharomyces cerevisiae. *Genetics*, **2008**, 180, 73-82	4	50
105	Replication past a trans-4-hydroxynonenal minor-groove adduct by the sequential action of human DNA polymerases iota and kappa. *Molecular and Cellular Biology*, **2006**, 26, 381-6	4.8	50
104	A role for yeast and human translesion synthesis DNA polymerases in promoting replication through 3-methyl adenine. *Molecular and Cellular Biology*, **2007**, 27, 7198-205	4.8	50
103	Trf4 and Trf5 proteins of Saccharomyces cerevisiae exhibit poly(A) RNA polymerase activity but no DNA polymerase activity. *Molecular and Cellular Biology*, **2005**, 25, 10183-9	4.8	49
102	Evidence for a Watson-Crick hydrogen bonding requirement in DNA synthesis by human DNA polymerase kappa. *Molecular and Cellular Biology*, **2005**, 25, 7137-43	4.8	48
101	Stable ester conjugate between the Saccharomyces cerevisiae RAD6 protein and ubiquitin has no biological activity. *Journal of Molecular Biology*, **1991**, 221, 745-9	6.5	48
100	Effects of the rad52 gene on sister chromatid recombination in Saccharomyces cerevisiae. *Current Genetics*, **1981**, 3, 247-50	2.9	48
99	Defective thymine dimer excision in radiation-sensitive mutants rad10 and rad16 of Saccharomyces cerevisiae. *Molecular Genetics and Genomics*, **1977**, 152, 125-8		48
98	Structure and mechanism of human PrimPol, a DNA polymerase with primase activity. *Science Advances*, **2016**, 2, e1601317	14.3	47

97	A single domain in human DNA polymerase iota mediates interaction with PCNA: implications for translesion DNA synthesis. *Molecular and Cellular Biology*, **2005**, 25, 1183-90	4.8	47
96	Error-Prone Replication through UV Lesions by DNA Polymerase Protects against Skin Cancers. *Cell*, **2019**, 176, 1295-1309.e15	56.2	47
95	Yeast Rev1 protein promotes complex formation of DNA polymerase zeta with Pol32 subunit of DNA polymerase delta. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 9631-6	11.5	46
94	Molecular cloning and characterization of the RAD1 gene of Saccharomyces cerevisiae. *Gene*, **1983**, 26, 119-26	3.8	46
93	Structure of human DNA polymerase kappa inserting dATP opposite an 8-OxoG DNA lesion. *PLoS ONE*, **2009**, 4, e5766	3.7	46
92	Requirement of ELC1 for RNA polymerase II polyubiquitylation and degradation in response to DNA damage in Saccharomyces cerevisiae. *Molecular and Cellular Biology*, **2006**, 26, 3999-4005	4.8	45
91	A role for DNA polymerase In promoting replication through oxidative DNA lesion, thymine glycol, in human cells. *Journal of Biological Chemistry*, **2014**, 289, 13177-85	5.4	44
90	Mutations in the ubiquitin binding UBZ motif of DNA polymerase eta do not impair its function in translesion synthesis during replication. *Molecular and Cellular Biology*, **2007**, 27, 7266-72	4.8	44
89	Yeast and human translesion DNA synthesis polymerases: expression, purification, and biochemical characterization. *Methods in Enzymology*, **2006**, 408, 390-407	1.7	44
88	Increased spontaneous mitotic segregation in MMS-sensitive mutants of Saccharomyces cerevisiae. *Genetics*, **1977**, 87, 229-36	4	44
87	Structure-specific nuclease activity in yeast nucleotide excision repair protein Rad2. *Journal of Biological Chemistry*, **1995**, 270, 30194-8	5.4	43
86	Complex formation of yeast Rev1 with DNA polymerase eta. *Molecular and Cellular Biology*, **2007**, 27, 8401-8	4.8	42
85	Mismatch extension ability of yeast and human DNA polymerase eta. *Journal of Biological Chemistry* , **2001**, 276, 2263-6	5.4	42
84	Yeast RAD26, a homolog of the human CSB gene, functions independently of nucleotide excision repair and base excision repair in promoting transcription through damaged bases. *Molecular and Cellular Biology*, **2002**, 22, 4383-9	4.8	42
83	The DNA-dependent ATPase activity of yeast nucleotide excision repair factor 4 and its role in DNA damage recognition. *Journal of Biological Chemistry*, **1998**, 273, 6292-6	5.4	42
82	Role of DNA damage-induced replication checkpoint in promoting lesion bypass by translesion synthesis in yeast. *Genes and Development*, **2009**, 23, 1438-49	12.6	41
81	Requirement of yeast Rad1-Rad10 nuclease for the removal of 3-blocked termini from DNA strand breaks induced by reactive oxygen species. *Genes and Development*, **2004**, 18, 2283-91	12.6	41
80	Acidic residues critical for the activity and biological function of yeast DNA polymerase eta. *Molecular and Cellular Biology*, **2001**, 21, 2018-25	4.8	41

79	Regulated expression of the Saccharomyces cerevisiae DNA repair gene RAD7 in response to DNA damage and during sporulation. *Nucleic Acids Research*, **1990**, 18, 3281-5	20.1	41
78	Complex formation with damage recognition protein Rad14 is essential for Saccharomyces cerevisiae Rad1-Rad10 nuclease to perform its function in nucleotide excision repair in vivo. *Molecular and Cellular Biology*, **2006**, 26, 1135-41	4.8	40
77	The mechanism of nucleotide incorporation by human DNA polymerase eta differs from that of the yeast enzyme. *Molecular and Cellular Biology*, **2003**, 23, 8316-22	4.8	40
76	Holliday junction cleavage by yeast Rad1 protein. *Nature*, **1994**, 371, 531-4	50.4	40
75	Human DNA polymerase iota promotes replication through a ring-closed minor-groove adduct that adopts a syn conformation in DNA. *Molecular and Cellular Biology*, **2005**, 25, 8748-54	4.8	39
74	Renaturation of DNA catalysed by yeast DNA repair and recombination protein RAD10. *Nature*, **1992**, 355, 743-5	50.4	38
73	Yeast DNA polymerase eta makes functional contacts with the DNA minor groove only at the incoming nucleoside triphosphate. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 5113-8	11.5	37
72	Isolation and characterization of the RAD2 gene of Saccharomyces cerevisiae. *Gene*, **1984**, 30, 121-8	3.8	37
71	DNA polymerase eta lacking the ubiquitin-binding domain promotes replicative lesion bypass in humans cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 10401-5	11.5	36
70	A mechanism for the exclusion of low-fidelity human Y-family DNA polymerases from base excision repair. *Genes and Development*, **2003**, 17, 2777-85	12.6	35
69	Requirement of yeast DNA polymerase delta in post-replicational repair of UV-damaged DNA. *Journal of Biological Chemistry*, **1997**, 272, 25445-8	5.4	34
68	Human DNA polymerase kappa uses template-primer misalignment as a novel means for extending mispaired termini and for generating single-base deletions. *Genes and Development*, **2003**, 17, 2191-9	12.6	34
67	Human DNA polymerase kappa forms nonproductive complexes with matched primer termini but not with mismatched primer termini. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 15776-81	11.5	33
66	Translesion DNA synthesis by yeast DNA polymerase eta on templates containing N2-guanine adducts of 1,3-butadiene metabolites. *Journal of Biological Chemistry*, **2001**, 276, 2517-22	5.4	33
65	An iron-sulfur cluster in the polymerase domain of yeast DNA polymerase *Journal of Molecular Biology*, **2014**, 426, 301-8	6.5	32
64	Human xeroderma pigmentosum group G gene encodes a DNA endonuclease. *Nucleic Acids Research*, **1994**, 22, 3312-6	20.1	32
63	Decreased UV mutagenesis in cdc8, a DNA replication mutant of Saccharomyces cerevisiae. *Molecular Genetics and Genomics*, **1979**, 172, 249-58		32
62	Purification and characterization of a uracil-DNA glycosylase from the yeast. Saccharomyces cerevisiae. *Nucleic Acids Research*, **1981**, 9, 5797-809	20.1	32

61	Rev1 promotes replication through UV lesions in conjunction with DNA polymerases ζ, and ι but not DNA polymerase η. *Genes and Development*, **2015**, 29, 2588-602	12.6	32
60	DNA synthesis across an abasic lesion by human DNA polymerase iota. *Structure*, **2009**, 17, 530-7	5.2	31
59	Crystal structure of yeast DNA polymerase ζ catalytic domain. *PLoS ONE*, **2014**, 9, e94835	3.7	30
58	DNA synthesis across an abasic lesion by yeast REV1 DNA polymerase. *Journal of Molecular Biology*, **2011**, 406, 18-28	6.5	30
57	The relation between repair of DNA and radiation and chemical mutagenesis in Saccharomyces cerevisiae. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **1976**, 41, 241-8	3.3	30
56	Structural insights into yeast DNA polymerase delta by small angle X-ray scattering. *Journal of Molecular Biology*, **2009**, 394, 377-82	6.5	29
55	Cryo-EM structure and dynamics of eukaryotic DNA polymerase δ holoenzyme. *Nature Structural and Molecular Biology*, **2019**, 26, 955-962	17.6	28
54	Role of hoogsteen edge hydrogen bonding at template purines in nucleotide incorporation by human DNA polymerase iota. *Molecular and Cellular Biology*, **2006**, 26, 6435-41	4.8	28
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