# Louise Prakash

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 222 papers | 22,258 citations | 6254 80 h-index | 10445 139 g-index |
| 223 all docs | 223 docs citations | 223 times ranked | 7092 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | EUKARYOTIC TRANSLESION SYNTHESIS DNA POLYMERASES: Specificity of Structure and Function. Annual Review of Biochemistry, 2005, 74, 317-353. | 11.1 | 919 |
| 2 | The Y-Family of DNA Polymerases. Molecular Cell, 2001, 8, 7-8. | 9.7 | 798 |
| 3 | hRAD30 Mutations in the Variant Form of Xeroderma Pigmentosum. Science, 1999, 285, 263-265. | 12.6 | 712 |
| 4 | Eukaryotic polymerases Î¹ and Î¶ act sequentially to bypass DNA lesions. Nature, 2000, 406, 1015-1019. | 27.8 | 622 |
| 5 | YeastSaccharomyces cerevisiae selectable markers in pUC18 polylinkers. Yeast, 1990, 6, 363-366. | 1.7 | 418 |
| 6 | Fidelity of Human DNA Polymerase Î·. Journal of Biological Chemistry, 2000, 275, 7447-7450. | 3.4 | 365 |
| 7 | Structure of the Catalytic Core of S. cerevisiae DNA Polymerase Î·. Molecular Cell, 2001, 8, 417-426. | 9.7 | 347 |
| 8 | Efficient and accurate replication in the presence of 7,8-dihydro-8-oxoguanine by DNA polymerase Î·. Nature Genetics, 2000, 25, 458-461. | 21.4 | 342 |
| 9 | Nucleotide excision repair in yeast. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2000, 451, 13-24. | 1.0 | 318 |
| 10 | Roles of yeast DNA polymerases delta and zeta and of Rev1 in the bypass of abasic sites. Genes and Development, 2001, 15, 945-954. | 5.9 | 313 |
| 11 | Eukaryotic DNA Polymerases: Proposal for a Revised Nomenclature. Journal of Biological Chemistry, 2001, 276, 43487-43490. | 3.4 | 307 |
| 12 | Human xeroderma pigmentosum group D gene encodes a DMA helicase. Nature, 1993, 365, 852-855. | 27.8 | 304 |
| 13 | Replication by human DNA polymerase-Î¹ occurs by Hoogsteen base-pairing. Nature, 2004, 430, 377-380. | 27.8 | 300 |
| 14 | Translesion DNA synthesis in eukaryotes: A one- or two-polymerase affair. Genes and Development, 2002, 16, 1872-1883. | 5.9 | 296 |
| 15 | Characterization of postreplication repair in Saccharomyces cerevisiae and effects of rad6, rad18, rev3 and rad52 mutations. Molecular Genetics and Genomics, 1981, 184, 471-478. | 2.4 | 269 |
| 16 | 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, 23360-23365. | 3.4 | 268 |
| 17 | EFFECTS OF THE RAD52 GENE ON RECOMBINATION IN SACCHAROMYCES CEREVISIAE. Genetics, 1980, 94, 31-50. | 2.9 | 257 |
| 18 | Yeast Rad5 Protein Required for Postreplication Repair Has a DNA Helicase Activity Specific for Replication Fork Regression. Molecular Cell, 2007, 28, 167-175. | 9.7 | 252 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Structural basis of high-fidelity DNA synthesis by yeast DNA polymerase Î´. Nature Structural and Molecular Biology, 2009, 16, 979-986. | 8.2 | 236 |
| 20 | Physical and Functional Interactions of Human DNA Polymerase Î· with PCNA. Molecular and Cellular Biology, 2001, 21, 7199-7206. | 2.3 | 231 |
| 21 | ISOLATION AND CHARACTERIZATION OF MMS-SENSITIVE MUTANTS OF SACCHAROMYCES CEREVISIAE. Genetics, 1977, 86, 33-55. | 2.9 | 230 |
| 22 | Rev1 Employs a Novel Mechanism of DNA Synthesis Using a Protein Template. Science, 2005, 309, 2219-2222. | 12.6 | 224 |
| 23 | Reconstitution of Yeast Nucleotide Excision Repair with Purified Rad Proteins, Replication Protein A, and Transcription Factor TFIIH. Journal of Biological Chemistry, 1995, 270, 12973-12976. | 3.4 | 223 |
| 24 | Human DNA Polymerase Îº Encircles DNA: Implications for Mismatch Extension and Lesion Bypass. Molecular Cell, 2007, 25, 601-614. | 9.7 | 214 |
| 25 | 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, 18107-18112. | 7.1 | 204 |
| 26 | 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, 3768-3773. | 7.1 | 201 |
| 27 | RAD25 is a DMA helicase required for DNA repair and RNA polymerase II transcription. Nature, 1994, 369, 578-581. | 27.8 | 199 |
| 28 | Interaction with PCNA Is Essential for Yeast DNA Polymerase Î· Function. Molecular Cell, 2001, 8, 407-415. | 9.7 | 199 |
| 29 | Evidence for Involvement of Yeast Proliferating Cell Nuclear Antigen in DNA Mismatch Repair. Journal of Biological Chemistry, 1996, 271, 27987-27990. | 3.4 | 197 |
| 30 | Role of DNA Polymerase Î· in the Bypass of a (6-4) TT Photoproduct. Molecular and Cellular Biology, 2001, 21, 3558-3563. | 2.3 | 190 |
| 31 | 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, 4267-4274. | 2.3 | 189 |
| 32 | Requirement of the Yeast MSH3 and MSH6 Genes for MSH2-dependent Genomic Stability. Journal of Biological Chemistry, 1996, 271, 7285-7288. | 3.4 | 184 |
| 33 | Mutagenic specificity: Reversion of iso-1-cytochrome c mutants of yeast. Journal of Molecular Biology, 1973, 79, 65-82. | 4.2 | 176 |
| 34 | Conditional Lethality of Null Mutations in RTH1 That Encodes the Yeast Counterpart of a Mammalian 5â€²- to 3â€²-Exonuclease Required for Lagging Strand DNA Synthesis in Reconstituted Systems. Journal of Biological Chemistry, 1995, 270, 4193-4196. | 3.4 | 172 |
| 35 | Stimulation of DNA Synthesis Activity of Human DNA Polymerase Îº by PCNA. Molecular and Cellular Biology, 2002, 22, 784-791. | 2.3 | 171 |
| 36 | A Major Role of DNA Polymerase Î´ in Replication of Both the Leading and Lagging DNA Strands. Molecular Cell, 2015, 59, 163-175. | 9.7 | 170 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Fidelity and Processivity of Saccharomyces cerevisiae DNA Polymerase Î·. Journal of Biological Chemistry, 1999, 274, 36835-36838. | 3.4 | 169 |
| 38 | Repair of pyrimidine dimers in nuclear and mitochondrial DNA of yeast irradiated with low doses of ultraviolet light. Journal of Molecular Biology, 1975, 98, 781-795. | 4.2 | 165 |
| 39 | Requirement of RAD5 and MMS2 for Postreplication Repair of UV-Damaged DNA in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2002, 22, 2419-2426. | 2.3 | 164 |
| 40 | Pol31 and Pol32 subunits of yeast DNA polymerase Î´ are also essential subunits of DNA polymerase Î¶. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12455-12460. | 7.1 | 159 |
| 41 | Human DINB1-encoded DNA polymerase Â is a promiscuous extender of mispaired primer termini. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1910-1914. | 7.1 | 157 |
| 42 | LACK OF CHEMICALLY INDUCED MUTATION IN REPAIR-DEFICIENT MUTANTS OF YEAST. Genetics, 1974, 78, 1101-1118. | 2.9 | 156 |
| 43 | Role of human DNA polymerase Â as an extender in translesion synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16000-16005. | 7.1 | 153 |
| 44 | TheSaccharomyces cerevisiae RAD18gene encodes a protein that contains potential zinc finger domains for nucleic acid binding and a putative nucleotide binding sequence. Nucleic Acids Research, 1988, 16, 7119-7131. | 14.5 | 151 |
| 45 | DNA repair gene RAD3 of S. cerevisiae is essential for transcription by RNA polymerase II. Nature, 1994, 367, 91-94. | 27.8 | 150 |
| 46 | Binding of insertion/deletion DNA mismatches by the heterodimer of yeast mismatch repair proteins MSH2 and MSH3. Current Biology, 1996, 6, 1185-1187. | 3.9 | 150 |
| 47 | Yeast Rev1 Protein Is a G Template-specific DNA Polymerase. Journal of Biological Chemistry, 2002, 277, 15546-15551. | 3.4 | 144 |
| 48 | Requirement of Yeast SGS1 and SRS2 Genes for Replication and Transcription. Science, 1999, 286, 2339-2342. | 12.6 | 141 |
| 49 | Yeast excision repair gene RAD2 encodes a single-stranded DNA endonuclease. Nature, 1993, 366, 365-368. | 27.8 | 137 |
| 50 | Replication past O 6 -Methylguanine by Yeast and Human DNA Polymerase Î·. Molecular and Cellular Biology, 2000, 20, 8001-8007. | 2.3 | 137 |
| 51 | Structural basis for the suppression of skin cancers by DNA polymerase Î·. Nature, 2010, 465, 1039-1043. | 27.8 | 136 |
| 52 | Highly error-free role of DNA polymerase Î· 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, 18219-18224. | 7.1 | 135 |
| 53 | Requirement of Mismatch Repair Genes MSH2 and MSH3 in the RAD1-RAD10 Pathway of Mitotic Recombination in Saccharomyces cerevisiae. Genetics, 1996, 142, 727-736. | 2.9 | 132 |
| 54 | Requirement of DNA Polymerase Î· for Error-Free Bypass of UV-Induced CC and TC Photoproducts. Molecular and Cellular Biology, 2001, 21, 185-188. | 2.3 | 129 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Yeast DNA Polymerase Î· Utilizes an Induced-Fit Mechanism of Nucleotide Incorporation. Cell, 2001, 107, 917-927. | 28.9 | 126 |
| 56 | 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, 6477-6482. | 7.1 | 124 |
| 57 | Human DNA Polymerase Î¹ Incorporates dCTP Opposite Template G via a G.C+ Hoogsteen Base Pair. Structure, 2005, 13, 1569-1577. | 3.3 | 120 |
| 58 | Regulation of polymerase exchange between PolÎ· and PolÎ´ 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, 5361-5366. | 7.1 | 117 |
| 59 | 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, 9837-9841. | 3.4 | 115 |
| 60 | Efficient and Error-Free Replication Past a Minor-Groove DNA Adduct by the Sequential Action of Human DNA Polymerases Î¹ and Îº. Molecular and Cellular Biology, 2004, 24, 5687-5693. | 2.3 | 114 |
| 61 | Complex Formation with Rev1 Enhances the Proficiency of Saccharomyces cerevisiae DNA Polymerase Î¶ for Mismatch Extension and for Extension Opposite from DNA Lesions. Molecular and Cellular Biology, 2006, 26, 9555-9563. | 2.3 | 114 |
| 62 | YeastRAD14 and human xeroderma pigmentosum group A DNA-repair genes encode homologous proteins. Nature, 1992, 355, 555-558. | 27.8 | 112 |
| 63 | 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, 31541-31546. | 3.4 | 107 |
| 64 | Crystal Structure of the Catalytic Core of Human DNA Polymerase Kappa. Structure, 2004, 12, 1395-1404. | 3.3 | 107 |
| 65 | Requirement of DNA Polymerase Activity of Yeast Rad30 Protein for Its Biological Function. Journal of Biological Chemistry, 1999, 274, 15975-15977. | 3.4 | 106 |
| 66 | Roles of PCNA-binding and ubiquitin-binding domains in human DNA polymerase Î· in translesion DNA synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 17724-17729. | 7.1 | 106 |
| 67 | Inefficient Bypass of an Abasic Site by DNA Polymerase Î·. Journal of Biological Chemistry, 2001, 276, 6861-6866. | 3.4 | 105 |
| 68 | Yeast DNA Polymerase Î¶ Is an Efficient Extender of Primer Ends Opposite from 7,8-Dihydro-8-Oxoguanine and O 6 -Methylguanine. Molecular and Cellular Biology, 2003, 23, 1453-1459. | 2.3 | 105 |
| 69 | Hoogsteen base pair formation promotes synthesis opposite the 1,N6-ethenodeoxyadenosine lesion by human DNA polymerase Î¹. Nature Structural and Molecular Biology, 2006, 13, 619-625. | 8.2 | 105 |
| 70 | An Affinity of Human Replication Protein A for Ultraviolet-damaged DNA. Journal of Biological Chemistry, 1996, 271, 11607-11610. | 3.4 | 104 |
| 71 | EFFECT OF GENES CONTROLLING RADIATION SENSITIVITY ON CHEMICALLY INDUCED MUTATIONS IN SACCHAROMYCES CEREVISIAE. Genetics, 1976, 83, 285-301. | 2.9 | 103 |
| 72 | 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, 7783-7790. | 2.3 | 100 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Efficient and Error-Free Replication past a Minor-Groove N 2 -Guanine Adduct by the Sequential Action of Yeast Rev1 and DNA Polymerase Î¶. Molecular and Cellular Biology, 2004, 24, 6900-6906. | 2.3 | 99 |
| 74 | The Stalling of Transcription at Abasic Sites Is Highly Mutagenic. Molecular and Cellular Biology, 2003, 23, 382-388. | 2.3 | 97 |
| 75 | The nucleotide sequence of theRAD3gene ofSaccharomyces cerevisiae: a potential adenine nucleotide binding amino acid sequence and a nonessential acidic carboxyl terminal region. Nucleic Acids Research, 1985, 13, 2357-2372. | 14.5 | 96 |
| 76 | Requirement of Yeast RAD2, a Homolog of Human XPG Gene, for Efficient RNA Polymerase II Transcription. Cell, 2002, 109, 823-834. | 28.9 | 94 |
| 77 | Yeast DNA polymerase zeta (zeta ) is essential for error-free replication past thymine glycol. Genes and Development, 2003, 17, 77-87. | 5.9 | 92 |
| 78 | Requirement of RAD52 Group Genes for Postreplication Repair of UV-Damaged DNA in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2007, 27, 7758-7764. | 2.3 | 89 |
| 79 | 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, 8903-8910. | 3.4 | 87 |
| 80 | 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. | 1.0 | 83 |
| 81 | Requirement of Watson-Crick Hydrogen Bonding for DNA Synthesis by Yeast DNA Polymerase Î·. Molecular and Cellular Biology, 2003, 23, 5107-5112. | 2.3 | 83 |
| 82 | Recombination and mutagenesis in rad6 mutants of Saccharomyces cerevisiae: Evidence for multiple functions of the RAD6 gene. Molecular Genetics and Genomics, 1981, 184, 410-415. | 2.4 | 82 |
| 83 | 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, 21665-21668. | 3.4 | 81 |
| 84 | Enhancement of MSH2â€“MSH3-mediated mismatch recognition by the yeast MLH1â€“PMS1 complex. Current Biology, 1997, 7, 790-793. | 3.9 | 81 |
| 85 | Yeast open reading frame YCR14C encodes a DNA Î²-polymerase-like enzyme. Nucleic Acids Research, 1993, 21, 5301-5307. | 14.5 | 79 |
| 86 | Defective excision of pyrimidine dimers and interstrand DNA crosslinks in rad7 and rad23 mutants of Saccharomyces cerevisiae. Molecular Genetics and Genomics, 1982, 188, 235-239. | 2.4 | 78 |
| 87 | Evidence for the Involvement of Nucleotide Excision Repair in the Removal of Abasic Sites in Yeast. Molecular and Cellular Biology, 2000, 20, 3522-3528. | 2.3 | 78 |
| 88 | Translesion Synthesis past Acrolein-derived DNA Adduct, Î³-Hydroxypropanodeoxyguanosine, by Yeast and Human DNA Polymerase Î·. Journal of Biological Chemistry, 2003, 278, 784-790. | 3.4 | 78 |
| 89 | Mechanism of nucleotide incorporation opposite a thymine-thymine dimer by yeast DNA polymerase Â. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 12093-12098. | 7.1 | 78 |
| 90 | Repair of Alkylation Damage: Stability of Methyl Groups in Bacillus subtilis Treated with Methyl Methanesulfonate. Journal of Bacteriology, 1970, 102, 760-766. | 2.2 | 78 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Yeast DNA Repair Protein RAD23 Promotes Complex Formation between Transcription Factor TFIIH and DNA Damage Recognition Factor RAD14. Journal of Biological Chemistry, 1995, 270, 8385-8388. | 3.4 | 77 |
| 92 | Complex Formation of Yeast Rev1 and Rev7 Proteins: a Novel Role for the Polymerase-Associated Domain. Molecular and Cellular Biology, 2005, 25, 9734-9740. | 2.3 | 77 |
| 93 | 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, 1170-1175. | 7.1 | 77 |
| 94 | Error-Prone Replication through UV Lesions by DNA Polymerase Î¸ Protects against Skin Cancers. Cell, 2019, 176, 1295-1309.e15. | 28.9 | 77 |
| 95 | Three additional genes involved in pyrimidine dimer removal in Saccharomyces cerevisiae: RAD7, RAD14 and MMS19. Molecular Genetics and Genomics, 1979, 176, 351-359. | 2.4 | 75 |
| 96 | Biochemical evidence for the requirement of Hoogsteen base pairing for replication by human DNA polymerase Â. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10466-10471. | 7.1 | 75 |
| 97 | Expression of theSaccharomyces cerevisiaeDNA repair geneRAD6that 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, 771-778. | 14.5 | 72 |
| 98 | Structural basis for cisplatin DNA damage tolerance by human polymerase Î· during cancer chemotherapy. Nature Structural and Molecular Biology, 2012, 19, 628-632. | 8.2 | 72 |
| 99 | Crystal Structure of the Saccharomyces cerevisiae Ubiquitin-conjugating Enzyme Rad6 at 2.6 Ã... Resolution. Journal of Biological Chemistry, 1998, 273, 6271-6276. | 3.4 | 70 |
| 100 | Apurinic Endonuclease Activity of Yeast Apn2 Protein. Journal of Biological Chemistry, 2000, 275, 22427-22434. | 3.4 | 70 |
| 101 | Error-free replicative bypass of (6â€“4) photoproducts by DNA polymerase Î¶ in mouse and human cells. Genes and Development, 2010, 24, 123-128. | 5.9 | 70 |
| 102 | PCNA binding domains in all three subunits of yeast DNA polymerase Î´ modulate its function in DNA replication. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17927-17932. | 7.1 | 69 |
| 103 | Dpo4 is hindered in extending a GÂ·T mismatch by a reverse wobble. Nature Structural and Molecular Biology, 2004, 11, 457-462. | 8.2 | 68 |
| 104 | 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, 3211-3216. | 2.3 | 68 |
| 105 | Structure of the Human Rev1â€“DNAâ€“dNTP Ternary Complex. Journal of Molecular Biology, 2009, 390, 699-709. | 4.2 | 67 |
| 106 | 3â€²-Phosphodiesterase and 3â€²â†’5â€² Exonuclease Activities of Yeast Apn2 Protein and Requirement of These Activities for Repair of Oxidative DNA Damage. Molecular and Cellular Biology, 2001, 21, 1656-1661. | 2.3 | 66 |
| 107 | Structure and mechanism of human PrimPol, a DNA polymerase with primase activity. Science Advances, 2016, 2, e1601317. | 10.3 | 65 |
| 108 | RAD26, the Yeast Homolog of Human Cockayne's Syndrome Group B Gene, Encodes a DNA-dependent ATPase. Journal of Biological Chemistry, 1996, 271, 18314-18317. | 3.4 | 64 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Requirement of Rad5 for DNA Polymerase Î¶-Dependent Translesion Synthesis in Saccharomyces cerevisiae. Genetics, 2008, 180, 73-82. | 2.9 | 64 |
| 110 | Error-free replicative bypass of thymine glycol by the combined action of DNA polymerases Îº and Î¶ in human cells. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14116-14121. | 7.1 | 64 |
| 111 | Requirement for Yeast RAD26 , a Homolog of the Human CSB Gene, in Elongation by RNA Polymerase II. Molecular and Cellular Biology, 2001, 21, 8651-8656. | 2.3 | 63 |
| 112 | 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, 10821-10826. | 3.4 | 61 |
| 113 | A Role for Yeast and Human Translesion Synthesis DNA Polymerases in Promoting Replication through 3-Methyl Adenine. Molecular and Cellular Biology, 2007, 27, 7198-7205. | 2.3 | 61 |
| 114 | An Incoming Nucleotide Imposes an anti to syn Conformational Change on the Templating Purine in the Human DNA Polymerase-Î¹ Active Site. Structure, 2006, 14, 749-755. | 3.3 | 60 |
| 115 | Protein-Template-Directed Synthesis across an Acrolein-Derived DNA Adduct by Yeast Rev1 DNA Polymerase. Structure, 2008, 16, 239-245. | 3.3 | 59 |
| 116 | Specific induction of transitions and transversions of G Â· C base pairs by 4-nitroquinoline-1-oxide in iso-1-cytochrome c mutants of yeast. Journal of Molecular Biology, 1974, 85, 51-65. | 4.2 | 57 |
| 117 | Stable ester conjugate between the Saccharomyces cerevisiae RAD6 protein and ubiquitin has no biological activity. Journal of Molecular Biology, 1991, 221, 745-749. | 4.2 | 57 |
| 118 | Transcript levels of theSaccharomyces cerevisiaeDNA repair gene RAD18 increase in UV irradiated cells and during meiosis but not during the mitotic cell cycle. Nucleic Acids Research, 1991, 19, 893-898. | 14.5 | 57 |
| 119 | Stimulation of 3â€²â†’5â€² Exonuclease and 3â€²-Phosphodiesterase Activities of Yeast Apn2 by Proliferating Cell Nuclear Antigen. Molecular and Cellular Biology, 2002, 22, 6480-6486. | 2.3 | 57 |
| 120 | Human DNA Polymerase Î¹ Utilizes Different Nucleotide Incorporation Mechanisms Dependent upon the Template Base. Molecular and Cellular Biology, 2004, 24, 936-943. | 2.3 | 57 |
| 121 | Defective thymine dimer excision in radiation-sensitive mutants rad10 and rad16 of Saccharomyces cerevisiae. Molecular Genetics and Genomics, 1977, 152, 125-128. | 2.4 | 56 |
| 122 | Effects of the rad52 gene on sister chromatid recombination in Saccharomyces cerevisiae. Current Genetics, 1981, 3, 247-250. | 1.7 | 56 |
| 123 | Role of yeast Rth1 nuclease and its homologs in mutation avoidance, DNA repair, and DNA replication. Current Genetics, 1998, 34, 21-29. | 1.7 | 55 |
| 124 | A Single Domain in Human DNA Polymerase Î¹ Mediates Interaction with PCNA: Implications for Translesion DNA Synthesis. Molecular and Cellular Biology, 2005, 25, 1183-1190. | 2.3 | 55 |
| 125 | Yeast Rev1 protein promotes complex formation of DNA polymerase Î¶ with Pol32 subunit of DNA polymerase Î´. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 9631-9636. | 7.1 | 54 |
| 126 | Structure-specific Nuclease Activity in Yeast Nucleotide Excision Repair Protein Rad2. Journal of Biological Chemistry, 1995, 270, 30194-30198. | 3.4 | 53 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | Evidence for a Watson-Crick Hydrogen Bonding Requirement in DNA Synthesis by Human DNA Polymerase Î². Molecular and Cellular Biology, 2005, 25, 7137-7143. | 2.3 | 53 |
| 128 | A Role for DNA Polymerase Î¸ in Promoting Replication through Oxidative DNA Lesion, Thymine Glycol, in Human Cells. Journal of Biological Chemistry, 2014, 289, 13177-13185. | 3.4 | 53 |
| 129 | Structure of Human DNA Polymerase Î² Inserting dATP Opposite an 8-OxoG DNA Lesion. PLoS ONE, 2009, 4, e5766. | 2.5 | 53 |
| 130 | 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, 6292-6296. | 3.4 | 52 |
| 131 | Mismatch Extension Ability of Yeast and Human DNA Polymerase Î·. Journal of Biological Chemistry, 2001, 276, 2263-2266. | 3.4 | 51 |
| 132 | Trf4 and Trf5 Proteins of Saccharomyces cerevisiae Exhibit Poly(A) RNA Polymerase Activity but No DNA Polymerase Activity. Molecular and Cellular Biology, 2005, 25, 10183-10189. | 2.3 | 51 |
| 133 | Replication past a trans -4-Hydroxynonenal Minor-Groove Adduct by the Sequential Action of Human DNA Polymerases Î¹ and Î². Molecular and Cellular Biology, 2006, 26, 381-386. | 2.3 | 51 |
| 134 | Molecular cloning and characterization of the RAD1 gene of Saccharomyces cerevisiae. Gene, 1983, 26, 119-126. | 2.2 | 50 |
| 135 | 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. | 2.3 | 50 |
| 136 | INCREASED SPONTANEOUS MITOTIC SEGREGATION IN MMS-SENSITIVE MUTANTS OF SACCHAROMYCES CEREVISIAE. Genetics, 1977, 87, 229-236. | 2.9 | 50 |
| 137 | Holliday junction cleavage by yeast Rad1 protein. Nature, 1994, 371, 531-534. | 27.8 | 49 |
| 138 | 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, 1135-1141. | 2.3 | 49 |
| 139 | Mutations in the Ubiquitin Binding UBZ Motif of DNA Polymerase Î· Do Not Impair Its Function in Translesion Synthesis during Replication. Molecular and Cellular Biology, 2007, 27, 7266-7272. | 2.3 | 49 |
| 140 | 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, 2283-2291. | 5.9 | 48 |
| 141 | Yeast and Human Translesion DNA Synthesis Polymerases: Expression, Purification, and Biochemical Characterization. Methods in Enzymology, 2006, 408, 390-407. | 1.0 | 48 |
| 142 | Complex Formation of Yeast Rev1 with DNA Polymerase Î·. Molecular and Cellular Biology, 2007, 27, 8401-8408. | 2.3 | 47 |
| 143 | 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, 4383-4389. | 2.3 | 46 |
| 144 | Role of DNA damage-induced replication checkpoint in promoting lesion bypass by translesion synthesis in yeast. Genes and Development, 2009, 23, 1438-1449. | 5.9 | 46 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Requirement of Yeast DNA Polymerase Î´ in Post-replicational Repair of UV-damaged DNA. Journal of Biological Chemistry, 1997, 272, 25445-25448. | 3.4 | 44 |
| 146 | Acidic Residues Critical for the Activity and Biological Function of Yeast DNA Polymerase Î·. Molecular and Cellular Biology, 2001, 21, 2018-2025. | 2.3 | 44 |
| 147 | The Mechanism of Nucleotide Incorporation by Human DNA Polymerase Î· Differs from That of the Yeast Enzyme. Molecular and Cellular Biology, 2003, 23, 8316-8322. | 2.3 | 43 |
| 148 | Human DNA Polymerase Î¹ Promotes Replication through a Ring-Closed Minor-Groove Adduct That Adopts a syn Conformation in DNA. Molecular and Cellular Biology, 2005, 25, 8748-8754. | 2.3 | 43 |
| 149 | Isolation and characterization of the RAD2 gene of Saccharomyces cerevisiae. Gene, 1984, 30, 121-128. | 2.2 | 42 |
| 150 | Regulated expression of theSaccharomyces cerevisiaeDNA repair gene RAD7 in response to DNA damage and during sporulation. Nucleic Acids Research, 1990, 18, 3281-3285. | 14.5 | 42 |
| 151 | Crystal Structure of Yeast DNA Polymerase Îµ Catalytic Domain. PLoS ONE, 2014, 9, e94835. | 2.5 | 42 |
| 152 | Structure and mechanism of B-family DNA polymerase Î¶ specialized for translesion DNA synthesis. Nature Structural and Molecular Biology, 2020, 27, 913-924. | 8.2 | 42 |
| 153 | An Ironâ€“Sulfur Cluster in the Polymerase Domain of Yeast DNA Polymerase Îµ. Journal of Molecular Biology, 2014, 426, 301-308. | 4.2 | 41 |
| 154 | Renaturation of DNA catalysed by yeast DNA repair and recombination protein RAD1O. Nature, 1992, 355, 743-745. | 27.8 | 40 |
| 155 | A mechanism for the exclusion of low-fidelity human Y-family DNA polymerases from base excision repair. Genes and Development, 2003, 17, 2777-2785. | 5.9 | 40 |
| 156 | Human DNA polymerase Â uses template-primer misalignment as a novel means for extending mispaired termini and for generating single-base deletions. Genes and Development, 2003, 17, 2191-2199. | 5.9 | 40 |
| 157 | Cryo-EM structure and dynamics of eukaryotic DNA polymerase Î´ holoenzyme. Nature Structural and Molecular Biology, 2019, 26, 955-962. | 8.2 | 40 |
| 158 | Decreased UV mutagenesis in cdc8, a DNA replication mutant of Saccharomyces cerevisiae. Molecular Genetics and Genomics, 1979, 172, 249-258. | 2.4 | 38 |
| 159 | Yeast DNA polymerase Â 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, 5113-5118. | 7.1 | 38 |
| 160 | Human DNA polymerase Â 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, 15776-15781. | 7.1 | 38 |
| 161 | Structural Insights into Yeast DNA Polymerase Î´ by Small Angle X-ray Scattering. Journal of Molecular Biology, 2009, 394, 377-382. | 4.2 | 38 |
| 162 | DNA polymerase Â 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, 10401-10405. | 7.1 | 38 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Human DNA Polymerase Î· Is Pre-Aligned for dNTP Binding and Catalysis. Journal of Molecular Biology, 2012, 415, 627-634. | 4.2 | 37 |
| 164 | Human DNA polymerase Î± in binary complex with a DNA:DNA template-primer. Scientific Reports, 2016, 6, 23784. | 3.3 | 36 |
| 165 | Purification and characterization of a uracil-DNA glycosylase from the yeast, Saccharomyces cerevisiae. Nucleic Acids Research, 1981, 9, 5797-5810. | 14.5 | 35 |
| 166 | Translesion DNA Synthesis by Yeast DNA Polymerase Î· on Templates Containing N 2-Guanine Adducts of 1,3-Butadiene Metabolites. Journal of Biological Chemistry, 2001, 276, 2517-2522. | 3.4 | 35 |
| 167 | DNA Synthesis across an Abasic Lesion by Yeast Rev1 DNA Polymerase. Journal of Molecular Biology, 2011, 406, 18-28. | 4.2 | 35 |
| 168 | Rev1 promotes replication through UV lesions in conjunction with DNA polymerases Î·, Î¹, and Î¸ but not DNA polymerase Î¶. Genes and Development, 2015, 29, 2588-2602. | 5.9 | 34 |
| 169 | Human xeroderma pigmentosum group G gene encodes a DNA endonuclease. Nucleic Acids Research, 1994, 22, 3312-3316. | 14.5 | 33 |
| 170 | Role of Hoogsteen Edge Hydrogen Bonding at Template Purines in Nucleotide Incorporation by Human DNA Polymerase Î¹. Molecular and Cellular Biology, 2006, 26, 6435-6441. | 2.3 | 33 |
| 171 | The relation between repair of DNA and radiation and chemical mutagenesis in Saccharomyces cerevisiae. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1976, 41, 241-248. | 1.0 | 32 |
| 172 | DNA Synthesis across an Abasic Lesion by Human DNA Polymerase Î¹. Structure, 2009, 17, 530-537. | 3.3 | 32 |
| 173 | Translesion synthesis DNA polymerases promote error-free replication through the minor-groove DNA adduct 3-deaza-3-methyladenine. Journal of Biological Chemistry, 2017, 292, 18682-18688. | 3.4 | 32 |
| 174 | Molecular cloning of the RAD10 gene of Saccharomyces cerevisiae. Gene, 1985, 34, 55-61. | 2.2 | 31 |
| 175 | The Architecture of Yeast DNA Polymerase Î¶. Cell Reports, 2013, 5, 79-86. | 6.4 | 31 |
| 176 | Distinct mechanisms of cis-syn thymine dimer bypass by Dpo4 and DNA polymerase Â. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12359-12364. | 7.1 | 30 |
| 177 | Requirement of Nse1, a Subunit of the Smc5-Smc6 Complex, for Rad52-Dependent Postreplication Repair of UV-Damaged DNA in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2007, 27, 8409-8418. | 2.3 | 29 |
| 178 | Structural Basis for Error-free Replication of Oxidatively Damaged DNA by Yeast DNA Polymerase Î·. Structure, 2010, 18, 1463-1470. | 3.3 | 29 |
| 179 | Requirement of Rad18 protein for replication through DNA lesions in mouse and human cells. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 7799-7804. | 7.1 | 29 |
| 180 | TheSchizosaccharomyces pombe rhp3+gene required for DNA repair and cell viability is functionally interchangeable with theRAD3gene ofSaccharomyces cerevisiae. Nucleic Acids Research, 1992, 20, 2327-2334. | 14.5 | 28 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | The structure and function of RAD6 and RAD18 DNA repair genes of Saccharomyces cerevisiae. Genome, 1989, 31, 597-600. | 2.0 | 25 |
| 182 | Lethality in Yeast of Trichothiodystrophy (TTD) Mutations in the Human Xeroderma Pigmentosum Group D Gene. Journal of Biological Chemistry, 1995, 270, 17660-17663. | 3.4 | 25 |
| 183 | Synergistic Interaction between Yeast Nucleotide Excision Repair Factors NEF2 and NEF4 in the Binding of Ultraviolet-damaged DNA. Journal of Biological Chemistry, 1999, 274, 24257-24262. | 3.4 | 24 |
| 184 | Fidelity and Damage Bypass Ability of Schizosaccharomyces pombe Eso1 Protein, Comprised of DNA Polymerase Î· and Sister Chromatid Cohesion Protein Ctf7. Journal of Biological Chemistry, 2001, 276, 42857-42862. | 3.4 | 24 |
| 185 | Deoxynucleotide Triphosphate Binding Mode Conserved in Y Family DNA Polymerases. Molecular and Cellular Biology, 2003, 23, 3008-3012. | 2.3 | 24 |
| 186 | Alkylation mutagenesis in Saccharomyces cerevisiae: lack of evidence for an adaptive response. Current Genetics, 1986, 10, 647-655. | 1.7 | 23 |
| 187 | Role of Human DNA Polymerase Îº in Extension Opposite from a cisâ€“syn Thymine Dimer. Journal of Molecular Biology, 2011, 408, 252-261. | 4.2 | 22 |
| 188 | Genetic Control of Replication through N1-methyladenine in Human Cells. Journal of Biological Chemistry, 2015, 290, 29794-29800. | 3.4 | 22 |
| 189 | Replication across Template T/U by Human DNA Polymerase-Î¹. Structure, 2009, 17, 974-980. | 3.3 | 20 |
| 190 | DIFFERENT EFFECTS OF RAD GENES OF SACCHAROMYCES CEREVISIAE ON INCISIONS OF INTERSTRAND CROSSLINKS AND MONOADDUCTS IN DNA INDUCED BY PSORALEN PLUS NEAR UV LIGHT TREATMENT. Photochemistry and Photobiology, 1984, 39, 349-352. | 2.5 | 18 |
| 191 | Mating-type suppression of the DNA-repair defect of the yeast rad6? mutation requires the activity of genes in the RAD52 epistasis group. Current Genetics, 1995, 28, 12-18. | 1.7 | 18 |
| 192 | Structural basis of DNA synthesis opposite 8-oxoguanine by human PrimPol primase-polymerase. Nature Communications, 2021, 12, 4020. | 12.8 | 18 |
| 193 | The RAD6 Gene and Protein of Saccharomyces cerevisiae. Annals of the New York Academy of Sciences, 1994, 726, 267-273. | 3.8 | 17 |
| 194 | Genetic Analysis of Error-Prone Repair Systems in Saccharomyces cerevisiae. , 1980, 15, 141-158. | | 17 |
| 195 | Role of DNA repair in ethyl methanesulfonate-induced mutagenesis in Saccharomyces cerevisiae. Carcinogenesis, 1982, 3, 439-444. | 2.8 | 16 |
| 196 | Requirement of Replication Checkpoint Protein Kinases Mec1/Rad53 for Postreplication Repair in Yeast. MBio, 2011, 2, e00079-11. | 4.1 | 16 |
| 197 | Identification of two functional <scp>PCNA</scp>â€binding domains in human <scp>DNA</scp> polymerase Îº. Genes To Cells, 2014, 19, 594-601. | 1.2 | 16 |
| 198 | DIFFERENTIATION BETWEEN AMBER AND OCHRE MUTANTS OF YEAST BY REVERSION WITH 4-NITROQUINOLINE-1-OXIDE. Genetics, 1974, 77, 245-254. | 2.9 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | DNA polymerase Î¸ accomplishes translesion synthesis opposite 1,N<sup>6</sup>-ethenodeoxyadenosine with a remarkably high fidelity in human cells. Genes and Development, 2019, 33, 282-287. | 5.9 | 12 |
| 200 | Mechanism of error-free DNA synthesis across N1-methyl-deoxyadenosine by human DNA polymerase-Î¹. Scientific Reports, 2017, 7, 43904. | 3.3 | 11 |
| 201 | Structural basis for polymerase Î·â€“promoted resistance to the anticancer nucleoside analog cytarabine. Scientific Reports, 2018, 8, 12702. | 3.3 | 11 |
| 202 | A novel ubiquitin binding mode in the S. cerevisiae translesion synthesis DNA polymerase Î·. Molecular BioSystems, 2011, 7, 1874. | 2.9 | 10 |
| 203 | A novel role of DNA polymerase Î» in translesion synthesis in conjunction with DNA polymerase Î¶. Life Science Alliance, 2021, 4, e202000900. | 2.8 | 10 |
| 204 | Genetic Control of Translesion Synthesis on Leading and Lagging DNA Strands in Plasmids Derived from Epstein-Barr Virus in Human Cells. MBio, 2012, 3, e00271-12. | 4.1 | 8 |
| 205 | Replication pastO6-Methylguanine by Yeast and Human DNA Polymerase Î·. Molecular and Cellular Biology, 2000, 20, 8001-8007. | 2.3 | 8 |
| 206 | Ultraviolet light induced mutagenesis of mitochondrial genes in the rad6, rev3 and cdc8 mutants of Saccharomyces cerevisiae. Molecular Genetics and Genomics, 1983, 189, 513-515. | 2.4 | 7 |
| 207 | Response to Burgers etÂal.. Molecular Cell, 2016, 61, 494-495. | 9.7 | 7 |
| 208 | Genetic control of predominantly error-free replication through an acrolein-derived minor-groove DNA adduct. Journal of Biological Chemistry, 2018, 293, 2949-2958. | 3.4 | 7 |
| 209 | Translesion synthesis DNA polymerases Î·, Î¹, and Î½ promote mutagenic replication through the anticancer nucleoside cytarabine. Journal of Biological Chemistry, 2019, 294, 19048-19054. | 3.4 | 7 |
| 210 | Genetic evidence for reconfiguration of DNA polymerase Î¸ active site for error-free translesion synthesis in human cells. Journal of Biological Chemistry, 2020, 295, 5918-5927. | 3.4 | 7 |
| 211 | Evidence for the Involvement of Nucleotide Excision Repair in the Removal of Abasic Sites in Yeast. Molecular and Cellular Biology, 2000, 20, 3522-3528. | 2.3 | 7 |
| 212 | Cryo-EM structure of translesion DNA synthesis polymerase Î¶ with a base pair mismatch. Nature Communications, 2022, 13, 1050. | 12.8 | 7 |
| 213 | Implications of inhibition of Rev1 interaction with Y family DNA polymerases for cisplatin chemotherapy. Genes and Development, 2021, 35, 1256-1270. | 5.9 | 6 |
| 214 | Hyper-recombination and mutator effects of the mms9-1, mms13-1, and mms21-1 mutations in Saccharomyces cerevisiae. Current Genetics, 1981, 4, 223-232. | 1.7 | 5 |
| 215 | Structural insights into mutagenicity of anticancer nucleoside analog cytarabine during replication by DNA polymerase Î·. Scientific Reports, 2019, 9, 16400. | 3.3 | 5 |
| 216 | PATHWAYS OF DNA REPAIR IN YEAST. , 1978, , 413-416. | | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 217 | Hoogsteen base-pairing in DNA replication? (reply). Nature, 2005, 437, E7-E7. | 27.8 | 4 |
| 218 | Reply to Sabbioneda et al.: Role of ubiquitin-binding motif of human DNA polymerase Î· in translesion synthesis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, . | 7.1 | 4 |
| 219 | DNA polymerase Î» promotes error-free replication through Watsonâ€“Crick impairing N1-methyl-deoxyadenosine adduct in conjunction with DNA polymerase Î¶. Journal of Biological Chemistry, 2021, 297, 100868. | 3.4 | 4 |
| 220 | The Effect of Genes Controlling Radiation Sensitivity on Chemical Mutagenesis in Yeast. , 1975, 5A, 393-395. | | 4 |
| 221 | CONSERVATION OF STRUCTURE AND FUNCTION OF DNA REPAIR GENES BETWEEN YEAST AND HUMAN. , 1992, , 239-244. | | 0 |
| 222 | The architecture of yeast DNA polymerase zeta (927.2). FASEB Journal, 2014, 28, 927.2. | 0.5 | 0 |