Philip C Hanawalt

List of Publications by Year
in descending order

127 papers	13,941 citations	24978 57 h-index	21474 114 g-index
128 all docs	128 docs citations	128 times ranked	8590 citing authors

#	Article	IF	Citations
1	Transcription-coupled DNA repair: two decades of progress and surprises. Nature Reviews Molecular Cell Biology, 2008, 9, 958-970.	16.1	896
2	DNA Repair in Bacteria and Mammalian Cells. Annual Review of Biochemistry, 1979, 48, 783-836.	5.0	891
3	Comparative Gene Expression Profiles Following UV Exposure in Wild-Type and SOS-Deficient <i>Escherichia coli</i>. Genetics, 2001, 158, 41-64.	1.2	721
4	Thymine deficiency and the normal DNA replication cycle. I. Journal of Molecular Biology, 1961, 3, 144-155.	2.0	706
5	Evolution of the SNF2 family of proteins: subfamilies with distinct sequences and functions. Nucleic Acids Research, 1995, 23, 2715-2723.	6.5	656
6	Induction of the Escherichia coli lactose operon selectively increases repair of its transcribed DNA strand. Nature, 1989, 342, 95-98.	13.7	559
7	Evidence for repair-replication of ultraviolet damaged DNA in bacteria. Journal of Molecular Biology, 1964, 9, 395-410.	2.0	520
8	p53-Mediated DNA Repair Responses to UV Radiation: Studies of Mouse Cells Lacking p53 , p21 , and/or gadd45 Genes. Molecular and Cellular Biology, 2000, 20, 3705-3714.	1.1	411
9	A phylogenomic study of DNA repair genes, proteins, and processes. Mutation Research DNA Repair, 1999, 435, 171-213.	3.8	398
10	Subpathways of nucleotide excision repair and their regulation. Oncogene, 2002, 21, 8949-8956.	2.6	397
11	Mutational Strand Asymmetries in Cancer Genomes Reveal Mechanisms of DNA Damage and Repair. Cell, 2016, 164, 538-549.	13.5	363
12	Expression of Wild-type p53 Is Required for Efficient Global Genomic Nucleotide Excision Repair in UV-irradiated Human Fibroblasts. Journal of Biological Chemistry, 1997, 272, 28073-28080.	1.6	318
13	Xeroderma Pigmentosum p48 Gene Enhances Global Genomic Repair and Suppresses UV-Induced Mutagenesis. Molecular Cell, 2000, 5, 737-744.	4.5	312
14	Isolation and genetic characterization of a thymineless death-resistant mutant of Escherichia coli K12: Identification of a new mutation (recQ1) that blocks the RecF recombination pathway. Molecular Genetics and Genomics, 1984, 195, 474-480.	2.4	246
15	The normal DNA replication cycle. II. Journal of Molecular Biology, 1961, 3, 156-165.	2.0	224
16	DNA repair in terminally differentiated cells. DNA Repair, 2002, 1, 59-75.	1.3	209
17	Effect of DNA lesions on transcription elongation. Biochimie, 1999, 81, 139-146.	1.3	202
18	RecA-Dependent Recovery of Arrested DNA Replication Forks. Annual Review of Genetics, 2003, 37, 611-646.	3.2	187

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19	Terminally Differentiated Human Neurons Repair Transcribed Genes but Display Attenuated Global DNA Repair and Modulation of Repair Gene Expression. Molecular and Cellular Biology, 2000, 20, 1562-1570.	1.1	182
20	Heterogeneity of patch size in repair replicated DNA in Escherichia coli. Journal of Molecular Biology, 1972, 67, 1-10.	2.0	157
21	Mechanisms and implications of transcription blockage by guanine-rich DNA sequences. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12816-12821.	3.3	136
22	THE U.V. SENSITIVITY OF BACTERIA: ITS RELATION TO THE DNA REPLICATION CYCLE. Photochemistry and Photobiology, 1966, 5, 1-12.	1.3	128
23	A Triplex-forming Sequence from the Human c-MYC Promoter Interferes with DNA Transcription. Journal of Biological Chemistry, 2007, 282, 32433-32441.	1.6	128
24	Controlling the efficiency of excision repair. Mutation Research DNA Repair, 2001, 485, 3-13.	3.8	127
25	Efficient protection against oxidative DNA damage in chromatin. Molecular Carcinogenesis, 1992, 5, 264-269.	1.3	126
26	Repair replication of DNA in bacteria: Irrelevance of chemical nature of base defect. Biochemical and Biophysical Research Communications, 1965, 19, 462-467.	1.0	125
27	Structural Characterization of RNA Polymerase II Complexes Arrested by a Cyclobutane Pyrimidine Dimer in the Transcribed Strand of Template DNA. Journal of Biological Chemistry, 1999, 274, 24124-24130.	1.6	123
28	Recovery of DNA Replication in UV-Irradiated <i>Escherichia coli</i> Requires both Excision Repair and RecF Protein Function. Journal of Bacteriology, 1999, 181, 916-922.	1.0	123
29	Host cell reactivation of plasmids containing oxidative DNA lesions is defective in Cockayne syndrome but normal in UV-sensitive syndrome fibroblasts. DNA Repair, 2006, 5, 13-22.	1.3	122
30	Effect of 8-oxoguanine on transcription elongation by T7 RNA polymerase and mammalian RNA polymerase II. DNA Repair, 2004, 3, 483-494.	1.3	121
31	Who's on first in the cellular response to DNA damage?. Nature Reviews Molecular Cell Biology, 2003, 4, 361-373.	16.1	119
32	Sensitive determination of pyrimidine dimers in DNA of UV-irradiated mammalian cells Introduction of T4 endonuclease V into frozen and thawed cells. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1981, 82, 173-189.	0.4	116
33	A UV-sensitive syndrome patient with a specific <i>CSA</i> mutation reveals separable roles for CSA in response to UV and oxidative DNA damage. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6209-6214.	3.3	112
34	Functional characterization of global genomic DNA repair and its implications for cancer. Mutation Research - Reviews in Mutation Research, 2003, 544, 107-114.	2.4	110
35	Stranded in an active gene. Current Biology, 1993, 3, 67-69.	1.8	109
36	Deficient repair of chemical adducts in Î± DNA of monkey cells. Cell, 1982, 28, 613-619.	13.5	108

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37	R-loop generation during transcription: Formation, processing and cellular outcomes. DNA Repair, 2018, 71, 69-81.	1.3	101
38	Inhibition of transcription and strand-specific DNA repair by Î±-amanitin in Chinese hamster ovary cells. Mutation Research DNA Repair, 1992, 274, 93-101.	3.8	100
39	DNA Sequences That Interfere with Transcription: Implications for Genome Function and Stability. Chemical Reviews, 2013, 113, 8620-8637.	23.0	96
40	The bases for Cockayne syndrome. Nature, 2000, 405, 415-415.	13.7	93
41	Induction of the SOS Response Increases the Efficiency of Global Nucleotide Excision Repair of Cyclobutane Pyrimidine Dimers, but Not 6-4 Photoproducts, in UV-Irradiated <i>Escherichia coli</i>. Journal of Bacteriology, 1998, 180, 3345-3352.	1.0	90
42	Processive action of T4 endonuclease V on ultraviolet-irradiated DNA. Nucleic Acids Research, 1980, 8, 5113-5127.	6.5	88
43	Selective repair of specific chromatin domains in UV-irradiated cells from xeroderma pigmentosum complementation group C. Mutation Research DNA Repair, 1990, 235, 171-180.	3.8	86
44	Behavior of T7 RNA Polymerase and Mammalian RNA Polymerase II at Site-specific Cisplatin Adducts in the Template DNA. Journal of Biological Chemistry, 2003, 278, 35791-35797.	1.6	86
45	Lack of transcription-coupled repair in mammalian ribosomal RNA genes. Biochemistry, 1993, 32, 10512-10518.	1.2	85
46	Comet-FISH with strand-specific probes reveals transcription-coupled repair of 8-oxoGuanine in human cells. Nucleic Acids Research, 2013, 41, 7700-7712.	6.5	85
47	Role of DNA Polymerase II in Repair Replication in Escherichia coli. Nature: New Biology, 1973, 244, 242-243.	4.5	84
48	Effect of monochromatic ultraviolet light on macromolecular synthesis in Escherichia coli. Biochimica Et Biophysica Acta, 1960, 41, 283-294.	1.3	82
49	Effect of Thymine Glycol on Transcription Elongation by T7 RNA Polymerase and Mammalian RNA Polymerase II. Journal of Biological Chemistry, 2001, 276, 45367-45371.	1.6	82
50	Transcription Arrest at an Abasic Site in the Transcribed Strand of Template DNA. Chemical Research in Toxicology, 2006, 19, 1215-1220.	1.7	78
51	Revisiting the rodent repairadox. Environmental and Molecular Mutagenesis, 2001, 38, 89-96.	0.9	75
52	Transcription Domain-Associated Repair in Human Cells. Molecular and Cellular Biology, 2006, 26, 8722-8730.	1.1	72
53	G4-forming Sequences in the Non-transcribed DNA Strand Pose Blocks to T7 RNA Polymerase and Mammalian RNA Polymerase II. Journal of Biological Chemistry, 2008, 283, 12756-12762.	1.6	72
54	When parsimony backfires: Neglecting DNA repair may doom neurons in Alzheimer's disease. BioEssays, 2003, 25, 168-173.	1.2	64

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55	Malondialdehyde adducts in DNA arrest transcription by T7 RNA polymerase and mammalian RNA polymerase II. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 7275-7280.	3.3	63
56	Translesion DNA synthesis in the dihydrofolate reductase domain of UV-irradiated CHO cells. Biochemistry, 1992, 31, 6794-6800.	1.2	62
57	The Repair of DNA. Scientific American, 1967, 216, 36-43.	1.0	58
58	Strong transcription blockage mediated by R-loop formation within a G-rich homopurineâ€"homopyrimidine sequence localized in the vicinity of the promoter. Nucleic Acids Research, 2017, 45, 6589-6599.	6.5	58
59	Role of RecA and the SOS Response in Thymineless Death in Escherichia coli. PLoS Genetics, 2010, 6, e1000865.	1.5	57
60	Transcription blockage by homopurine DNA sequences: role of sequence composition and single-strand breaks. Nucleic Acids Research, 2013, 41, 1817-1828.	6.5	57
61	DNA slip-outs cause RNA polymerase II arrest in vitro : potential implications for genetic instability. Nucleic Acids Research, 2011, 39, 7444-7454.	6.5	56
62	Ultraviolet-sensitive syndrome cells are defective in transcription-coupled repair of cyclobutane pyrimidine dimers. DNA Repair, 2002, 1, 629-643.	1.3	55
63	Inhibitory effect of a short Z-DNA forming sequence on transcription elongation by T7 RNA polymerase. Nucleic Acids Research, 2008, 36, 3163-3170.	6.5	55
64	Rearrangement of mammalian chromatin structure following excision repair. Nature, 1982, 299, 462-464.	13.7	53
65	Macromolecular Synthesis and Thymineless Death in <i>Mycoplasma laidlawii</i> B. Journal of Bacteriology, 1968, 96, 2066-2076.	1.0	52
66	The genetic defect in the Chinese hamster ovary cell mutant UV61 permits moderate selective repair of cyclobutane pyrimidine dimers in an expressed gene. Mutation Research DNA Repair, 1991, 255, 183-191.	3.8	51
67	Historical perspective on the DNA damage response. DNA Repair, 2015, 36, 2-7.	1.3	51
68	Thymineless Death Lives On: New Insights into a Classic Phenomenon. Annual Review of Microbiology, 2015, 69, 247-263.	2.9	50
69	Reduced global genomic repair of ultraviolet light-induced cyclobutane pyrimidine dimers in simian virus 40-transformed human cells. Molecular Carcinogenesis, 2000, 29, 17-24.	1.3	48
70	Nucleotide Excision Repair Activity Varies Among Murine Spermatogenic Cell Types1. Biology of Reproduction, 2005, 73, 123-130.	1.2	47
71	Thymineless death is associated with loss of essential genetic information from the replication origin. Molecular Microbiology, 2010, 75, 1455-1467.	1.2	47
72	Ligation of oligonucleotides by pyrimidine dimersâ€"a missing â€˜linkâ€™ in the origin of life?. Nature, 1982, 298, 393-396.	13.7	46

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73	Paradigms for the Three Rs: DNA Replication, Recombination, and Repair. Molecular Cell, 2007, 28, 702-707.	4.5	44
74	Transcription-Coupled DNA Repair in Prokaryotes. Progress in Molecular Biology and Translational Science, 2012, 110, 25-40.	0.9	43
75	A cut above: Discovery of an alternative excision repair pathway in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2581-2583.	3.3	42
76	Preferential repair of the transcribed DNA strand in the dihydrofolate reductase gene throughout the cell cycle in UV-irradiated human cells. Mutation Research DNA Repair, 1995, 336, 181-192.	3.8	40
77	Mismatch Repair Mutants in Yeast Are Not Defective in Transcription-Coupled DNA Repair of UV-Induced DNA Damage. Genetics, 1996, 143, 1127-1135.	1.2	40
78	Impaired nucleotide excision repair upon macrophage differentiation is corrected by E1 ubiquitin-activating enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16188-16193.	3.3	39
79	CELLULAR RECOVERY FROM PHOTOCHEMICAL DAMAGE. , 1968, , 203-251.		38
80	DNA repair replication in temperature-sensitive DNA synthesis deficient bacteria. Biochemical and Biophysical Research Communications, 1967, 29, 779-784.	1.0	37
81	New applications of the Comet assay: Cometâ€“FISH and transcription-coupled DNA repair. Mutation Research - Reviews in Mutation Research, 2009, 681, 44-50.	2.4	34
82	Concepts and models for DNA repair: FromEscherichia coli to mammalian cells. Environmental and Molecular Mutagenesis, 1989, 14, 90-98.	0.9	33
83	Turnover in bacterial DNA containing thymine or 5-bromouracil. Journal of Molecular Biology, 1975, 98, 219-233.	2.0	30
84	Transcription Blockage by Bulky End Termini at Single-Strand Breaks in the DNA Template: Differential Effects of 5â€² and 3â€² Adducts. Biochemistry, 2012, 51, 8964-8970.	1.2	29
85	Transcription blockage by stable H-DNA analogs in vitro. Nucleic Acids Research, 2015, 43, 6994-7004.	6.5	28
86	Anchoring Nascent RNA to the DNA Template Could Interfere with Transcription. Biophysical Journal, 2011, 100, 675-684.	0.2	27
87	Excision-repair patch lengths are similar for transcription-coupled repair and global genome repair in UV-irradiated human cells. Mutation Research DNA Repair, 1997, 385, 95-105.	3.8	26
88	The SOS-dependent upregulation of uvrD is not required for efficient nucleotide excision repair of ultraviolet light induced DNA photoproducts in Escherichia coli. Mutation Research DNA Repair, 2001, 485, 319-329.	3.8	25
89	Evolution of concepts in DNA repair. Environmental and Molecular Mutagenesis, 1994, 23, 78-85.	0.9	24
90	Density matters: The semiconservative replication of DNA. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17889-17894.	3.3	24

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91	Transcriptional Inhibition by an Oxidized Abasic Site in DNA. Chemical Research in Toxicology, 2006, 19, 234-241.	1.7	24
92	Role of DNA Replication and Repair in Thymineless Death in Escherichia coli. Journal of Bacteriology, 2006, 188, 5286-5288.	1.0	24
93	Expression and nucleotide excision repair of a UV-irradiated reporter gene in unirradiated human cells. Mutation Research DNA Repair, 1999, 433, 117-126.	3.8	20
94	Nucleotide excision repair phenotype of human acute myeloid leukemia cell lines at various stages of differentiation. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2007, 614, 3-15.	0.4	20
95	Photobiological Origins of the Field of Genomic Maintenance. Photochemistry and Photobiology, 2016, 92, 52-60.	1.3	20
96	Transcription-Coupled DNA Repair. , 1999, , 169-179.		20
97	Photosensitive human syndromes. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2015, 776, 24-30.	0.4	19
98	Reduced extractability of the XPA DNA repair protein in ultraviolet light-irradiated mammalian cells. FEBS Letters, 1999, 463, 49-52.	1.3	16
99	Peptide nucleic acid (PNA) binding and its effect on in vitro transcription in friedreich's ataxia triplet repeats. Molecular Carcinogenesis, 2009, 48, 299-308.	1.3	16
100	PNA binding to the nonâ€template DNA strand interferes with transcription, suggesting a blockage mechanism mediated by Râ€loop formation. Molecular Carcinogenesis, 2015, 54, 1508-1512.	1.3	16
101	Lack of sequence-specific removal of N-methylpurines from cellular DNA. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1990, 233, 31-37.	0.4	15
102	Emerging links between premature ageing and defective DNA repair. Mechanisms of Ageing and Development, 2008, 129, 503-505.	2.2	15
103	Photoreactivation of macromolecular synthesis in Escherichia coli. Biochimica Et Biophysica Acta, 1960, 37, 141-143.	1.3	14
104	A balanced perspective on unbalanced growth and thymineless death. Frontiers in Microbiology, 2015, 6, 504.	1.5	13
105	Clustered Sites of DNA Repair Synthesis during Early Nucleotide Excision Repair in Ultraviolet Light-Irradiated Quiescent Human Fibroblasts. Experimental Cell Research, 2002, 276, 284-295.	1.2	12
106	A novel <i>XPD</i> mutation in a compound heterozygote; the mutation in the second allele is present in three homozygous patients with mild sun sensitivity. Environmental and Molecular Mutagenesis, 2012, 53, 505-514.	0.9	12
107	Transcription-coupled nucleotide excision repair of a gene transcribed by bacteriophage T7 RNA polymerase in Escherichia coli. DNA Repair, 2010, 9, 958-963.	1.3	10
108	â€œClose fitting sleevesâ€•â€" Recognition of structural defects in duplex DNA. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1993, 289, 7-15.	0.4	9

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109	Differential incorporation of halogenated deoxyuridines during UV-induced DNA repair synthesis in human cells. DNA Repair, 2005, 4, 359-366.	1.3	8
110	A novel mode for transcription inhibition mediated by PNA-induced R-loops with a model in vitro system. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2018, 1861, 158-166.	0.9	8
111	Four decades of DNA repair: from early insights to current perspectives. Biochimie, 2003, 85, 1043-1052.	1.3	7
112	Transcription coupled nucleotide excision repair in Escherichia coli can be affected by changing the arginine at position 529 of the Î² subunit of RNA polymerase. DNA Repair, 2007, 6, 1434-1440.	1.3	7
113	Modulation of Cytotoxicity by Transcription-Coupled Nucleotide Excision Repair Is Independent of the Requirement for Bioactivation of Acylfulvene. Chemical Research in Toxicology, 2017, 30, 769-776.	1.7	7
114	Mechanism for R-loop formation remote from the transcription start site: Topological issues and possible facilitation by dissociation of RNA polymerase. DNA Repair, 2022, 110, 103275.	1.3	6
115	When transcription goes on Holliday: Double Holliday junctions block RNA polymerase II transcription in vitro. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2017, 1860, 282-288.	0.9	5
116	Mechanistic understanding of cellular responses to genomic stress. Environmental and Molecular Mutagenesis, 2020, 61, 25-33.	0.9	5
117	Altered Minorâ€Groove Hydrogen Bonds in DNA Block Transcription Elongation by T7 RNA Polymerase. ChemBioChem, 2015, 16, 1212-1218.	1.3	4
118	Cutting-edge Perspectives in Genomic Maintenance III: Preface. DNA Repair, 2016, 44, 1-3.	1.3	4
119	24 Interference of PNA binding to the non-template strand with transcription supports the general model for transcription blockage by R-loop formation. Journal of Biomolecular Structure and Dynamics, 2015, 33, 14-14.	2.0	3
120	Growing up with DNA repair and joining the EMS. Environmental and Molecular Mutagenesis, 2010, 51, 890-896.	0.9	2
121	The awakening of DNA repair at Yale. Yale Journal of Biology and Medicine, 2013, 86, 517-23.	0.2	2
122	Preface. DNA Repair, 2015, 32, 1-2.	1.3	1
123	Lesion Sensing and Decision Points in the DNA Damage Response. Issues in Toxicology, 2012, , 190-211.	0.2	0
124	In memory of John Bruce Hays (1937â€"2014). DNA Repair, 2014, 16, vi-vii.	1.3	0
125	Cutting-edge perspectives in genomic maintenance V. DNA Repair, 2018, 71, 1-2.	1.3	0
126	Tribute to Sam Wilson: Shining a light on base excision DNA repair. DNA Repair, 2020, 93, 102933.	1.3	0

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127	Transcription Inhibition by PNA-Induced R-Loops. Methods in Molecular Biology, 2020, 2105, 141-155.	0.4	0