



Philip C. Hanawalt

Dr. Morris Herzstein Professor in Biology, Emeritus

 NIH Biosketch available Online

 Curriculum Vitae available Online

CONTACT INFORMATION

• Alternate Contact

Yolanda Madrid - Administrative Assistant

Email ylmadrid@stanford.edu

Tel 650-723-2424

Bio

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Biology
- Member, Bio-X
- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- International Advisory Board, Chulabhorn Research Institute, (2005-2010)
- Consultant, Achaogen, (2005-2006)
- External Advisory Comm, MD Anderson Cancer Center, (2004-2007)
- Senior Editor, Cancer Research, American Association for Cancer Research, (2003-2010)
- Abbott-ASM Lifetime Ach Selection Committee, American Academy of Microbiology, (2003-2006)
- Chair, External Advisory Board, Program on Structural Biology of DNA Repair, Lawrence Berkeley National Laboratory, (2001- present)
- Editorial Board, Proceedings of the National Academy of Sciences USA, (2000- present)
- Board of Trustees, Oberlin College, (1998-2007)
- Council for Extramural Grants, American Cancer Society, (1998-2001)
- Council for Extramural Grants, American Cancer Society, (1998-2001)
- NRC Committee, BEIR VII Phase I, (1997-1998)
- External Advisory comm, City of Hope Cancer Center, (1995-2007)
- Toxicology Advisory Board, The Burroughs Wellcome Fund, (1995-2004)
- Scientific Advisory Board, Forgarty International Center, NIH, (1995-1999)
- Carcinogen Carcinogen Identification Committee and Advisory Board, CA-EPA, (1994-1998)
- Board of Directors, American Association for Cancer Research, (1994-1997)
- Chair, External Advisory Brd, University of Texas Medical Branch, (1994-1997)
- Member, School Planning Group, Humanities and Sciences, Stanford University, (1991-1993)

- Member, 23rd Senate of the Academic Council, Stanford University, (1990-1992)
- Chair, Second Senate ad hoc Committee on the Professoriate, Stanford University, (1988-1990)
- Pre-doctoral Fellowship Review Panel, National Science Foundation, (1985-1986)
- Chair, Department of Biological Sciences, Stanford University, (1982-1989)
- Chemical Pathology Study Section, National Institutes of Health, (1981-1984)
- Chair, Administrative Panel on Radiological Hazards, Stanford University, (1978-1980)
- Chair, US National Committee, International Union of Pure and Applied Biophysics, (1969-1975)
- Director, Biophysics Graduate Program, Stanford University, (1968-1985)
- Physiological Chemistry Study Section, National Institutes of Health, (1966-1970)

HONORS AND AWARDS

- AACR-Princess Takamatsu Lectureship, American Association for Cancer Research (April 2011)
- Fellow, American Association for Cancer Research (2021)
- Keynote Lecture, 10th International Conference on Environmental Mutagens, Florence, Italy (2009)
- The Dr. Morris Herzstein Professorship in Biology, Stanford University (2008 -)
- Doctor Honoris Causa, University of Seville, Seville, Spain (2008)
- Fellow, American Academy of Arts and Sciences (2008)
- Doctor Honoris Causa, University of Bio Bio, Concepcion, Chile (2006)
- Keynote Lecture, ASM International Conference on DNA repair and mutagenesis, Bermuda (2004)
- Rothschild-Yvette Mayent- Institute Curie Award/Lectureship, Curie Institute. Paris, France (2003)
- John B Little Award in Radiation Health Sciences, Harvard School of Public Health (2002)
- Senior Scholar Research Award, Ellison Medical Foundation (2001- 2005)
- Foreign Associate, European Molecular Biology Organization (2001)
- Chair, Gordon Conference on Mammalian DNA Repair (1999)
- Howard H. and Jessie T. Watkins University Professor, Stanford University (1997 - 2002)
- Honorary Doctor of Science, Oberlin College (1997)
- International Mutation Research Achievement Award, Elsevier (1997)
- Annual Research Award, American Society for Photobiology (1996)
- Chair, Gordon Conference on Mutagenesis (1996)
- President, Environmental Mutagen Society (1994)
- Fellow, American Academy of Microbiology (1993)
- Annual Award for Excellence in Basic Science, Environmental Mutagen Society (1992)
- Peter and Helen Bing Award for Distinguished Teaching, Stanford University (1992)
- Excellence in Teaching Award, Northern California Chapter, Phi Beta Kappa (1991)
- Member, National Academy of Sciences, USA (1989)
- Outstanding Investigator Research Award, National Cancer Institute, NIH (1987 - 2001)
- Inaugural Annual Lecture, Lord Dowding Fund for Humane Research (1982)
- Lectureship, Spanish Academy of Science & Catalan Society (1982)
- Fellow, American Association for Advancement of Sciences (1981)

PROFESSIONAL EDUCATION

- Ph.D., Yale University , Biophysics (1959)
- M.S., Yale University , Physics (1955)
- B.A., Oberlin College , Physics (1954)

LINKS

- My Lab Site: <https://web.stanford.edu/~hanawalt>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Hanawalt was a productive researcher in the field of DNA repair since his pioneering discovery of repair replication and co-discovery of nucleotide excision repair in *E. coli* in 1963. In 1982 Hanawalt and his colleagues reported the first example of intragenomic DNA repair heterogeneity: chemical adducts in alpha DNA in African green monkey kidney cells were not as efficiently repaired as in the genome overall. Hanawalt and his colleagues then discovered that repair of some types of damage is selective; active genes are preferentially repaired, and in fact a special repair pathway, termed transcription-coupled repair (TCR), operates on the transcribed strands of expressed genes. TCR was documented in mammalian cells, in *E. coli*, and in yeast chromosomal and plasmid borne genes. The discovery of TCR in Hanawalt's laboratory has had profound implications for the fields of mutagenesis, environmental carcinogenesis, aging, and risk assessment.

The prototype *recQ* gene was discovered in *E. coli* in Hanawalt's laboratory, and we now know of five homologues in humans including the genes mutated in the cancer prone hereditary diseases: Bloom's syndrome, Werner's syndrome, and Rothman Thompson syndrome.

More recent studies focused upon the regulation of TCR and the global genomic nucleotide excision repair (GGR) pathway. Features of the TCR pathway (defective in Cockayne syndrome) include the possibility of "gratuitous TCR" at transcription pause sites in undamaged DNA. The GGR pathway was shown to be controlled through the SOS stress response in *E. coli* and through the activated product of the p53 tumor suppressor gene in human cells. These regulatory systems particularly affect the efficiency of repair of the predominant UV-induced photoproduct, the cyclobutane pyrimidine dimer, as well as that of chemical carcinogen DNA adducts, such as benzo(a)pyrene diol-epoxide and benzo(g)chrysene. Rodent cells (typically lacking the p53-controlled GGR pathway) are unable to carry out efficient GGR of some lesions. Therefore, caution should be exercised in the interpretation of results from such systems for risk assessment in genetic toxicology.

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (Phd Program)
- Biophysics (Phd Program)
- Cancer Biology (Phd Program)
- Dermatology (Fellowship Program)

Publications

PUBLICATIONS

- **Unbalanced Growth, the DNA Replication Cycle and Discovery of Repair Replication.** *Life (Basel, Switzerland)*
Hanawalt, P. C.
2023; 13 (4)
- **Topology and kinetics of R-loop formation.** *Biophysical journal*
Belotserkovskii, B. P., Hanawalt, P. C.
2022
- **Perspectives on the processing of R-loops by nucleotide excision repair**

Hanawalt, P.
WILEY.2022: 62

- **Mechanism for R-loop formation remote from the transcription start site: Topological issues and possible facilitation by dissociation of RNA polymerase.** *DNA repair*
Belotserkovskii, B. P., Hanawalt, P. C.
1800; 110: 103275
- **Tribute to Sam Wilson: Shining a light on base excision DNA repair.** *DNA repair*
Hanawalt, P. C.
2020; 93: 102933
- **Transcription Inhibition by PNA-Induced R-Loops.** *Methods in molecular biology (Clifton, N.J.)*
Belotserkovskii, B. P., Ng, S. Y., Hanawalt, P. C.
2020; 2105: 141–55
- **Mechanistic understanding of cellular responses to genomic stress.** *Environmental and molecular mutagenesis*
Hanawalt, P., Sweasy, J.
2019
- **R-loop generation during transcription: Formation, processing and cellular outcomes.** *DNA repair*
Belotserkovskii, B. P., Tornaletti, S., D'Souza, A. D., Hanawalt, P. C.
2018
- **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*
D'Souza, A. D., Belotserkovskii, B. P., Hanawalt, P. C.
2018; 1861 (2): 158–66
- **Strong transcription blockage mediated by R-loop formation within a G-rich homopurine-homopyrimidine sequence localized in the vicinity of the promoter.** *Nucleic acids research*
Belotserkovskii, B. P., Soo Shin, J. H., Hanawalt, P. C.
2017
- **Modulation of Cytotoxicity by Transcription-Coupled Nucleotide Excision Repair Is Independent of the Requirement for Bioactivation of Acylfulvene.** *Chemical research in toxicology*
Otto, C., Spivak, G., Aloisi, C. M., Menigatti, M., Naegeli, H., Hanawalt, P. C., Tanasova, M., Sturla, S. J.
2017
- **When transcription goes on Holliday: Double Holliday junctions block RNA polymerase II transcription in vitro.** *Biochimica et biophysica acta*
Pipathsouk, A., Belotserkovskii, B. P., Hanawalt, P. C.
2017; 1860 (2): 282-288
- **Photobiological Origins of the Field of Genomic Maintenance.** *Photochemistry and photobiology*
Ganesan, A., Hanawalt, P.
2016; 92 (1): 52-60
- **Mutational Strand Asymmetries in Cancer Genomes Reveal Mechanisms of DNA Damage and Repair.** *Cell*
Haradhvala, N. J., Polak, P. n., Stojanov, P. n., Covington, K. R., Shinbrot, E. n., Hess, J. M., Rheinbay, E. n., Kim, J. n., Maruvka, Y. E., Braunstein, L. Z., Kamburov, A. n., Hanawalt, P. C., Wheeler, et al
2016; 164 (3): 538–49
- **Historical perspective on the DNA damage response** *DNA REPAIR*
Hanawalt, P. C.
2015; 36: 2-7
- **Historical perspective on the DNA damage response.** *DNA repair*
Hanawalt, P. C.
2015; 36: 2-7

- **PNA binding to the non-template DNA strand interferes with transcription, suggesting a blockage mechanism mediated by R-loop formation** *MOLECULAR CARCINOGENESIS*
Belotserkovskii, B. P., Hanawalt, P. C.
2015; 54 (11): 1508-1512
- **Transcription blockage by stable H-DNA analogs in vitro** *NUCLEIC ACIDS RESEARCH*
Pandey, S., Ogloblina, A. M., Belotserkovskii, B. P., Dolinnaya, N. G., Yakubovskaya, M. G., Mirkin, S. M., Hanawalt, P. C.
2015; 43 (14): 6994-7004
- **Transcription blockage by stable H-DNA analogs in vitro.** *Nucleic acids research*
Pandey, S., Ogloblina, A. M., Belotserkovskii, B. P., Dolinnaya, N. G., Yakubovskaya, M. G., Mirkin, S. M., Hanawalt, P. C.
2015; 43 (14): 6994-7004
- **A balanced perspective on unbalanced growth and thymineless death** *FRONTIERS IN MICROBIOLOGY*
Hanawalt, P. C.
2015; 6
- **Photosensitive human syndromes** *MUTATION RESEARCH-FUNDAMENTAL AND MOLECULAR MECHANISMS OF MUTAGENESIS*
Spivak, G., Hanawalt, P. C.
2015; 776: 24-30
- **Photosensitive human syndromes.** *Mutation research*
Spivak, G., Hanawalt, P. C.
2015; 776: 24-30
- **Altered Minor-Groove Hydrogen Bonds in DNA Block Transcription Elongation by T7 RNA Polymerase** *CHEMBIOCHEM*
Tanasova, M., Goeldi, S., Meyer, F., Hanawalt, P. C., Spivak, G., Sturla, S. J.
2015; 16 (8): 1212-1218
- **Thymineless Death Lives On: New Insights into a Classic Phenomenon** *ANNUAL REVIEW OF MICROBIOLOGY, VOL 69*
Khodursky, A., Guzman, E. C., Hanawalt, P. C.
2015; 69: 247-?
- **In memory of John Bruce Hays (1937-2014).** *DNA repair*
de Wind, N., Buermeyer, A. B., Hanawalt, P. C.
2014; 16: vi-vii
- **The awakening of DNA repair at Yale.** *The Yale journal of biology and medicine*
Hanawalt, P. C.
2013; 86 (4): 517-23
- **DNA Sequences That Interfere with Transcription: Implications for Genome Function and Stability** *CHEMICAL REVIEWS*
Belotserkovskii, B. P., Mirkin, S. M., Hanawalt, P. C.
2013; 113 (11): 8620-8637
- **Comet-FISH with strand-specific probes reveals transcription-coupled repair of 8-oxoGuanine in human cells** *NUCLEIC ACIDS RESEARCH*
Guo, J., Hanawalt, P. C., Spivak, G.
2013; 41 (16): 7700-7712
- **Building on the past, shaping the future: The environmental mutagenesis and genomics society** *ENVIRONMENTAL AND MOLECULAR MUTAGENESIS*
Wilson, T. E., DeMarini, D. M., Dertinger, S. D., Engelward, B. P., Hanawalt, P. C., MacGregor, J. T., Smith-Roe, S. L., Witt, K. L., Yauk, C. L., Ljungman, M., Schwartz, J. L., Klein, C. B.
2013; 54 (3): 153-157
- **Transcription blockage by homopurine DNA sequences: role of sequence composition and single-strand breaks** *NUCLEIC ACIDS RESEARCH*
Belotserkovskii, B. P., Neil, A. J., Saleh, S. S., Shin, J. H., Mirkin, S. M., Hanawalt, P. C.
2013; 41 (3): 1817-1828
- **Transcription blockage by single-strand breaks in various sequences and the general model for transcription blockage by R-loop formation**
Belotserkovskii, B. P., Neil, A. J., Saleh, S. S., Shin, J. H., Mirkin, S. M., Hanawalt, P. C.

TAYLOR & FRANCIS INC.2013: 83–84

- **Transcription Blockage by Bulky End Termini at Single-Strand Breaks in the DNA Template: Differential Effects of 5' and 3' Adducts** *BIOCHEMISTRY*
Neil, A. J., Belotserkovskii, B. P., Hanawalt, P. C.
2012; 51 (44): 8964-8970
- **Comet-FISH to Sensitively Assess Global and Transcription-Coupled Repair of DNA Lesions** *43rd Annual Meeting of the Environmental-Mutagen-Society (EMS)*
Guo, J., Spivak, G., Hanawalt, P.
WILEY-BLACKWELL.2012: S35–S35
- **A novel XPD 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*
Falik-Zaccai, T. C., Erel-Segal, R., Horev, L., Bitterman-Deutsch, O., Koka, S., Chaim, S., Keren, Z., Kalfon, L., Gross, B., Segal, Z., Orgal, S., Shoval, Y., Slor, et al
2012; 53 (7): 505-514
- **Transcription-Coupled DNA Repair in Prokaryotes** *MECHANISMS OF DNA REPAIR*
Ganesan, A., Spivak, G., Hanawalt, P. C.
2012; 110: 25-40
- **Comet-Fish to Sensitively Assess Global and Transcription-Coupled Repair of DNA Lesions.** *42nd Annual Meeting of the Environmental-Mutagen-Society*
Spivak, G., Guo, J., Hanawalt, P. C.
WILEY-BLACKWELL.2011: S37–S37
- **DNA slip-outs cause RNA polymerase II arrest in vitro: potential implications for genetic instability** *NUCLEIC ACIDS RESEARCH*
Salinas-Rios, V., Belotserkovskii, B. P., Hanawalt, P. C.
2011; 39 (17): 7444-7454
- **Anchoring Nascent RNA to the DNA Template Could Interfere with Transcription** *BIOPHYSICAL JOURNAL*
Belotserkovskii, B. P., Hanawalt, P. C.
2011; 100 (3): 675-684
- **Transcription-coupled nucleotide excision repair of a gene transcribed by bacteriophage T7 RNA polymerase in Escherichia coli** *DNA REPAIR*
Ganesan, A. K., Hanawalt, P. C.
2010; 9 (9): 958-963
- **Growing up with DNA repair and joining the EMS.** *Environmental and molecular mutagenesis*
Hanawalt, P.
2010; 51 (8-9): 890-6
- **Mechanisms and implications of transcription blockage by guanine-rich DNA sequences** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Belotserkovskii, B. P., Liu, R., Tornaletti, S., Krasilnikova, M. M., Mirkin, S. M., Hanawalt, P. C.
2010; 107 (29): 12816-12821
- **Thymineless death is associated with loss of essential genetic information from the replication origin** *MOLECULAR MICROBIOLOGY*
Sangurdekar, D. P., Hamann, B. L., Smirnov, D., Srienc, F., Hanawalt, P. C., Khodursky, A. B.
2010; 75 (6): 1455-1467
- **A UV-sensitive syndrome patient with a specific CSA 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*
Nardo, T., Oneda, R., Spivak, G., Vaz, B., Mortier, L., Thomas, P., Orioli, D., Laugel, V., Stary, A., Hanawalt, P. C., Sarasin, A., Stefanini, M.
2009; 106 (15): 6209-6214
- **Peptide Nucleic Acid (PNA) Binding and Its Effect on In Vitro Transcription in Friedreich's Ataxia Triplet Repeats** *MOLECULAR CARCINOGENESIS*
Belotserkovskii, B. P., Liu, R., Hanawalt, P. C.
2009; 48 (4): 299-308
- **New applications of the Comet assay: Comet-FISH and transcription-coupled DNA repair** *MUTATION RESEARCH-REVIEWS IN MUTATION RESEARCH*
Spivak, G., Cox, R. A., Hanawalt, P. C.

2009; 681 (1): 44-50

- **Transcription-coupled DNA repair: two decades of progress and surprises** *NATURE REVIEWS MOLECULAR CELL BIOLOGY*
Hanawalt, P. C., Spivak, G.
2008; 9 (12): 958-970
- **Emerging links between premature ageing and defective DNA repair** *MECHANISMS OF AGEING AND DEVELOPMENT*
Hanawalt, P. C.
2008; 129 (7-8): 503-505
- **Inhibitory effect of a short Z-DNA forming sequence on transcription elongation by T7 RNA polymerase** *NUCLEIC ACIDS RESEARCH*
Ditlevson, J. V., Tornaletti, S., Belotserkovskii, B. P., Teijeiro, V., Wang, G., Vasquez, K. M., Hanawalt, P. C.
2008; 36 (10): 3163-3170
- **G4-forming sequences in the non-transcribed DNA strand pose blocks to T7 RNA polymerase and mammalian RNA polymerase II** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Tornaletti, S., Park-Snyder, S., Hanawalt, P. C.
2008; 283 (19): 12756-12762
- **Paradigms for the three Rs: DNA replication, recombination, and repair** *MOLECULAR CELL*
Hanawalt, P. C.
2007; 28 (5): 702-707
- **A triplex-forming sequence from the human c-MYC promoter interferes with DNA transcription** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Belotserkovskii, B. P., De Silva, E., Tornaletti, S., Wang, G., Vasquez, K. M., Hanawalt, P. C.
2007; 282 (44): 32433-32441
- **Transcription coupled nucleotide excision repair in Escherichia coli can be affected by changing the arginine at position 529 of the p subunit of RNA polymerase** *DNA REPAIR*
Ganesan, A. K., Smith, A. J., Savery, N. J., Zamos, P., Hanawalt, P. C.
2007; 6 (10): 1434-1440
- **Nucleotide excision repair phenotype of human acute myeloid leukemia cell lines at various stages of differentiation** *MUTATION RESEARCH-FUNDAMENTAL AND MOLECULAR MECHANISMS OF MUTAGENESIS*
Hsu, P., Hanawalt, P. C., Nospikel, T.
2007; 614 (1-2): 3-15
- **Transcription domain-associated repair in human cells** *MOLECULAR AND CELLULAR BIOLOGY*
Nospikel, T. P., Hyka-Nospikel, N., Hanawalt, P. C.
2006; 26 (23): 8722-8730
- **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*
Nospikel, T., Hanawalt, P. C.
2006; 103 (44): 16188-16193
- **Transcription arrest at an abasic site in the transcribed strand of template DNA** *CHEMICAL RESEARCH IN TOXICOLOGY*
Tornaletti, S., Maeda, L. S., Hanawalt, P. C.
2006; 19 (9): 1215-1220
- **Research collaborations: Trial, trust, and truth** *CELL*
Hanawalt, P. C.
2006; 126 (5): 823-825
- **Role of DNA replication and repair in thymineless death in Escherichia coli** *JOURNAL OF BACTERIOLOGY*
Morganroth, P. A., Hanawalt, P. C.
2006; 188 (14): 5286-5288
- **Processing of non-canonical DNA structures by RNA polymerase.** *37th Annual Meeting of the Environmental-Mutagen-Society*
VanOverbelke, J. L., DeSilva, E., Wang, G., Vasquez, K. M., Tornaletti, S., Hanawalt, P. C.
WILEY-LISS.2006: 427-27

- **Topoisomerase deficiencies subtly enhance global genomic repair of ultraviolet-induced DNA damage in *Saccharomyces cerevisiae*** *DNA REPAIR*
Cline, S. D., Hanawalt, P. C.
2006; 5 (5): 611-617
- **Transcriptional inhibition by an oxidized abasic site in DNA** *CHEMICAL RESEARCH IN TOXICOLOGY*
Wang, Y. L., Sheppard, T. L., Tornaletti, S., Maeda, L. S., Hanawalt, P. C.
2006; 19 (2): 234-241
- **Host cell reactivation of plasmids containing oxidative DNA lesions is defective in Cockayne syndrome but normal in UV-sensitive syndrome fibroblasts** *DNA REPAIR*
Spivak, G., Hanawalt, P. C.
2006; 5 (1): 13-22
- **In vivo assays for transcription-coupled repair** *DNA REPAIR, PTA*
Spivak, G., Pfeifer, G. P., Hanawalt, P.
2006; 408: 223-?
- **Comparative TFIIIS-mediated transcript cleavage by mammalian RNA polymerase II arrested at a lesion in different transcription systems** *DNA REPAIR*
Kalogeraki, V. S., Tornaletti, S., Cooper, P. K., Hanawalt, P. C.
2005; 4 (10): 1075-1087
- **Nucleotide excision repair activity varies among murine spermatogenic cell types** *BIOLOGY OF REPRODUCTION*
Xu, G. G., Spivak, G., Mitchell, D. L., Mori, T., McCarrey, J. R., McMahan, C. A., Walter, R. B., Hanawalt, P. C., Walter, C. A.
2005; 73 (1): 123-130
- **Density matters: The semiconservative replication of DNA** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Hanawalt, P. C.
2004; 101 (52): 17889-17894
- **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*
Cline, S. D., Riggins, J. N., Tornaletti, S., Marnett, L. J., Hanawalt, P. C.
2004; 101 (19): 7275-7280
- **Effect of 8-oxoguanine on transcription elongation by T7 RNA polymerase and mammalian RNA polymerase II** *DNA REPAIR*
Silvia, T. A., Maeda, L. S., Kolodner, R. D., Hanawalt, P. C.
2004; 3 (5): 483-494
- **Functional characterization of global genomic DNA repair and its implications for cancer** *4th International Conference on Environmental Mutagens in Human Populations (ICEMHP)*
Hanawalt, P. C., Ford, J. A., Lloyd, D. R.
ELSEVIER SCIENCE BV.2003: 107-14
- **Four decades of DNA repair: from early insights to current perspectives** *BIOCHIMIE*
Hanawalt, P. C.
2003; 85 (11): 1043-1052
- **Behavior of T7 RNA polymerase and mammalian RNA polymerase II at site-specific cisplatin adducts in the template DNA** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Tornaletti, S., Patrick, S. M., Turchi, J. J., Hanawalt, P. C.
2003; 278 (37): 35791-35797
- **Transcription arrest at a lesion in the transcribed DNA strand in vitro is not affected by a nearby lesion in the opposite strand** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Kalogeraki, V. S., Tornaletti, S., Hanawalt, P. C.
2003; 278 (21): 19558-19564
- **Who's on first in the cellular response to DNA damage?** *NATURE REVIEWS MOLECULAR CELL BIOLOGY*
Cline, S. D., Hanawalt, P. C.

2003; 4 (5): 361-372

- **When parsimony backfires: neglecting DNA repair may doom neurons in Alzheimer's disease** *BIOESSAYS*
Nouspikel, T., Hanawalt, P. C.
2003; 25 (2): 168-173
- **RecA-dependent recovery of arrested DNA replication forks** *ANNUAL REVIEW OF GENETICS*
Courcelle, J., Hanawalt, P. C.
2003; 37: 611-646
- **Subpathways of nucleotide excision repair and their regulation** *ONCOGENE*
Hanawalt, P. C.
2002; 21 (58): 8949-8956
- **p53 controls global nucleotide excision repair of low levels of structurally diverse benzo(g)chrysene-DNA adducts in human fibroblasts** *CANCER RESEARCH*
Lloyd, D. R., Hanawalt, P. C.
2002; 62 (18): 5288-5294
- **Ultraviolet-sensitive syndrome cells are defective in transcription-coupled repair of cyclobutane pyrimidine dimers** *DNA REPAIR*
Spivak, G., Itoh, T., Matsunaga, T., Nikaïdo, O., Hanawalt, P., Yamaizumi, M.
2002; 1 (8): 629-643
- **DNA repair in terminally differentiated cells** *DNA REPAIR*
Nouspikel, T., Hanawalt, P. C.
2002; 1 (1): 59-75
- **Effect of thymine glycol on transcription elongation by T7 RNA polymerase and mammalian RNA polymerase II** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Tornaletti, S., Maeda, L. S., Lloyd, D. R., Reines, D., Hanawalt, P. C.
2001; 276 (48): 45367-45371
- **Spatially localized generation of nucleotide sequence-specific DNA damage** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Oh, D. H., King, B. A., Boxer, S. G., Hanawalt, P. C.
2001; 98 (20): 11271-11276
- **Participation of recombination proteins in rescue of arrested replication forks in UV-irradiated Escherichia coli need not involve recombination** *Colloquium on Links Between Recombination and Replication - Vital Roles of Recombination*
Courcelle, J., Hanawalt, P. C.
NATL ACAD SCIENCES.2001: 8196-8202
- **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*
Crowley, D. J., Hanawalt, P. C.
2001; 485 (4): 319-329
- **Comparative gene expression profiles following UV exposure in wild-type and SOS-deficient Escherichia coli** *GENETICS*
Courcelle, J., Khodursky, A., Peter, B., Brown, P. O., Hanawalt, P. C.
2001; 158 (1): 41-64
- **Therefore, what are recombination proteins there for?** *BIOESSAYS*
Courcelle, J., Ganesan, A. K., Hanawalt, P. C.
2001; 23 (5): 463-470
- **Controlling the efficiency of excision repair** *MUTATION RESEARCH-DNA REPAIR*
Hanawalt, P. C.
2001; 485 (1): 3-13
- **Revisiting the rodent repairadox** *ENVIRONMENTAL AND MOLECULAR MUTAGENESIS*
Hanawalt, P. C.

2001; 38 (2-3): 89-96

- **Binding and photoreactivity of psoralen linked to triple helix-forming oligonucleotides** *PHOTOCHEMISTRY AND PHOTOBIOLOGY*
Oh, D. H., Hanawalt, P. C.
2000; 72 (3): 298-307
- **Reduced global genomic repair of ultraviolet light-induced cyclobutane pyrimidine dimers in simian virus 40-transformed human cells** *MOLECULAR CARCINOGENESIS*
Bowman, K. K., Sicard, D. M., Ford, J. M., Hanawalt, P. C.
2000; 29 (1): 17-24
- **Histone H3 and heat shock protein GRP78 are selectively cross-linked to DNA by photoactivated gilvocarcin V in human fibroblasts** *CANCER RESEARCH*
Matsumoto, A., Hanawalt, P. C.
2000; 60 (14): 3921-3926
- **p53-mediated DNA repair responses to UV radiation: Studies of mouse cells lacking p53, p21, and/or gadd45 genes** *MOLECULAR AND CELLULAR BIOLOGY*
Smith, M. L., Ford, J. M., Hollander, M. C., Bortnick, R. A., Amundson, S. A., Seo, Y. R., Deng, C. X., Hanawalt, P. C., Fornace, A. J.
2000; 20 (10): 3705-3714
- **Xeroderma pigmentosum p48 gene enhances global genomic repair and suppresses UV-induced mutagenesis** *MOLECULAR CELL*
Tang, J. Y., Hwang, B. J., Ford, J. M., Hanawalt, P. C., Chu, G.
2000; 5 (4): 737-744
- **Terminally differentiated human neurons repair transcribed genes but display attenuated global DNA repair and modulation of repair gene expression** *MOLECULAR AND CELLULAR BIOLOGY*
Nouspikel, T., Hanawalt, P. C.
2000; 20 (5): 1562-1570
- **p53-dependent global genomic repair of benzo[a]pyrene-7,8-diol-9,10-epoxide adducts in human cells** *CANCER RESEARCH*
Lloyd, D. R., Hanawalt, P. C.
2000; 60 (3): 517-521
- **Regulation of nucleotide excision repair in bacteria and mammalian cells** *Cold Spring Harbor Symposium on Quantitative Biology*
Hanawalt, P. C., Crowley, D. J., Ford, J. M., Ganesan, A. K., Lloyd, D. R., Nouspikel, T., Smith, C. A., Spivak, G., Tornaletti, S.
COLD SPRING HARBOR LAB PRESS, PUBLICATIONS DEPT.2000: 183-191
- **Triple helix-forming oligonucleotides target psoralen adducts to specific chromosomal sequences in human cells** *NUCLEIC ACIDS RESEARCH*
Oh, D. H., Hanawalt, P. C.
1999; 27 (24): 4734-4742
- **A phylogenomic study of DNA repair genes, proteins, and processes** *MUTATION RESEARCH-DNA REPAIR*
Eisen, J. A., Hanawalt, P. C.
1999; 435 (3): 171-213
- **RecQ and RecJ process blocked replication forks prior to the resumption of replication in UV-irradiated Escherichia coli** *MOLECULAR AND GENERAL GENETICS*
Courcelle, J., Hanawalt, P. C.
1999; 262 (3): 543-551
- **Structural characterization of RNA polymerase II complexes arrested by a cyclobutane pyrimidine dimer in the transcribed strand of template DNA** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Tornaletti, S., Reines, D., Hanawalt, P. C.
1999; 274 (34): 24124-24130
- **Expression and nucleotide excision repair of a UV-irradiated reporter gene in unirradiated human cells** *MUTATION RESEARCH-DNA REPAIR*
Ganesan, A. K., Hunt, J., Hanawalt, P. C.
1999; 433 (2): 117-126
- **Recovery of DNA replication in UV-irradiated Escherichia coli requires both excision repair and RecF protein function** *JOURNAL OF BACTERIOLOGY*
Courcelle, J., Crowley, D. J., Hanawalt, P. C.

1999; 181 (3): 916-922

- **Expression of the p48 xeroderma pigmentosum gene is p53-dependent and is involved in global genomic repair** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Hwang, B. J., Ford, J. M., Hanawalt, P. C., Chu, G.
1999; 96 (2): 424-428
- **Effect of DNA lesions on transcription elongation** *BIOCHIMIE*
Tornaletti, S., Hanawalt, P. C.
1999; 81 (1-2): 139-146
- **DNA repair of benzo[a]pyrene diol epoxide-DNA adducts in the DHFR gene of a human embryonic kidney cell line.** *POLYCYCLIC AROMATIC COMPOUNDS*
Schild, L. J., Smith, C. A., Hanawalt, P. C., Baird, W. M.
1999; 16 (1-4): 131-139
- **Transcription-coupled DNA repair - Which lesions? Which diseases?** *Conference of the NATO Advanced Study Institute on DNA Damage and Repair - Oxygen Radical Effects, Cellular Protection, and Biological Consequences*
Hanawalt, P. C., Spivak, G.
PLENUM PRESS DIV PLENUM PUBLISHING CORP.1999: 169-179
- **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 Escherichia coli** *JOURNAL OF BACTERIOLOGY*
Crowley, D. J., Hanawalt, P. C.
1998; 180 (13): 3345-3352
- **Genomic instability: environmental invasion and the enemies within** *MUTATION RESEARCH-FUNDAMENTAL AND MOLECULAR MECHANISMS OF MUTAGENESIS*
Hanawalt, P. C.
1998; 400 (1-2): 117-125
- **Human fibroblasts expressing the human papillomavirus E6 gene are deficient in global genomic nucleotide excision repair and sensitive to ultraviolet irradiation** *CANCER RESEARCH*
Ford, J. M., Baron, E. L., Hanawalt, P. C.
1998; 58 (4): 599-603
- **Nucleotide sequence context effect of a cyclobutane pyrimidine dimer upon RNA polymerase II transcription** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Tornaletti, S., Donahue, B. A., Reines, D., Hanawalt, P. C.
1997; 272 (50): 31719-31724
- **Competent transcription initiation by RNA polymerase II in cell-free extracts from Xeroderma pigmentosum groups B and D in an optimized RNA transcription assay** *BIOCHIMICA ET BIOPHYSICA ACTA-GENE STRUCTURE AND EXPRESSION*
Satoh, M. S., Hanawalt, P. C.
1997; 1354 (3): 241-251
- **Excision-repair patch lengths are similar for transcription-coupled repair and global genome repair in UV-irradiated human cells** *MUTATION RESEARCH-DNA REPAIR*
Bowman, K. K., Smith, C. A., Hanawalt, P. C.
1997; 385 (2): 95-105
- **Expression of wild-type p53 is required for efficient global genomic nucleotide excision repair in UV-irradiated human fibroblasts** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Ford, J. M., Hanawalt, P. C.
1997; 272 (44): 28073-28080
- **Preferential mutagenesis of lacZ integrated at unique sites in the Escherichia coli chromosome** *MOLECULAR AND GENERAL GENETICS*
Liu, S. K., Tseng, J. N., Shiuan, D., Hanawalt, P. C.
1997; 255 (5): 449-459
- **recF and recR are required for the resumption of replication at DNA replication forks in Escherichia coli** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Courcelle, J., CARSWELLCRUMPTON, C., Hanawalt, P. C.

1997; 94 (8): 3714-3719

- **Role of DNA excision repair gene defects in the etiology of cancer** *GENETIC INSTABILITY AND TUMORIGENESIS*
Ford, J. M., Hanawalt, P. C.
1997; 221: 47-70
- **TFIIH-mediated nucleotide excision repair and initiation of mRNA transcription in an optimized cell-free DNA repair and RNA transcription assay** *NUCLEIC ACIDS RESEARCH*
Sato, M. S., Hanawalt, P. C.
1996; 24 (18): 3576-3582
- **Recruitment of damaged DNA to the nuclear matrix in hamster cells following ultraviolet irradiation** *NUCLEIC ACIDS RESEARCH*
Koehler, D. R., Hanawalt, P. C.
1996; 24 (15): 2877-2884
- **Mismatch repair mutants in yeast are not defective in transcription-coupled DNA repair of UV-induced DNA damage** *GENETICS*
Sweder, K. S., Verhage, R. A., Crowley, D. J., Crouse, G. F., Brouwer, J., Hanawalt, P. C.
1996; 143 (3): 1127-1135
- **Effects of aminofluorene and acetylaminofluorene DNA adducts on transcriptional elongation by RNA polymerase II** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Donahue, B. A., Fuchs, R. P., Reines, D., Hanawalt, P. C.
1996; 271 (18): 10588-10594
- **Role of transcription-coupled DNA repair in susceptibility to environmental carcinogenesis** *2nd International Conference on Environmental Mutagens in Human Populations*
Hanawalt, P. C.
US DEPT HEALTH HUMAN SCIENCES PUBLIC HEALTH SCIENCE.1996: 547-551
- **DNA repair deficiencies associated with mutations in genes encoding subunits of transcription initiation factor TFIID in yeast** *NUCLEIC ACIDS RESEARCH*
Sweder, K. S., Chun, R., Mori, T., Hanawalt, P. C.
1996; 24 (8): 1540-1546
- **Kinetics of pyrimidine(6-4)pyrimidone photoproduct repair in Escherichia coli** *JOURNAL OF BACTERIOLOGY*
Koehler, D. R., Courcelle, J., Hanawalt, P. C.
1996; 178 (5): 1347-1350
- **Fine structure mapping of DNA repair within a 100 kb genomic region in Chinese hamster ovary cells** *4th International Conference on Mechanisms of Antimutagenesis and Anticarcinogenesis*
Spivak, G., Hanawalt, P. C.
ELSEVIER SCIENCE BV.1996: 207-16
- **The anti-cancer drug camptothecin inhibits elongation but stimulates initiation of RNA polymerase II transcription** *CARCINOGENESIS*
Ljungman, M., Hanawalt, P. C.
1996; 17 (1): 31-35
- **LI-FRAUMENI SYNDROME FIBROBLASTS HOMOZYGOUS FOR P53 MUTATIONS ARE DEFICIENT IN GLOBAL DNA-REPAIR BUT EXHIBIT NORMAL TRANSCRIPTION-COUPLED REPAIR AND ENHANCED UV RESISTANCE** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Ford, J. M., Hanawalt, P. C.
1995; 92 (19): 8876-8880
- **EVOLUTION OF THE SNF2 FAMILY OF PROTEINS - SUBFAMILIES WITH DISTINCT SEQUENCES AND FUNCTIONS** *NUCLEIC ACIDS RESEARCH*
Eisen, J. A., Sweder, K. S., Hanawalt, P. C.
1995; 23 (14): 2715-2723
- **PRESENCE OF NEGATIVE TORSIONAL TENSION IN THE PROMOTER REGION OF THE TRANSCRIPTIONALLY POISED DIHYDROFOLATE-REDUCTASE GENE IN-VIVO** *NUCLEIC ACIDS RESEARCH*
Ljungman, M., Hanawalt, P. C.

1995; 23 (10): 1782-1789

- **DNA-REPAIR COMES OF AGE** *MUTATION RESEARCH-DNA REPAIR*
Hanawalt, P. C.
1995; 336 (2): 101-113
- **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*
Lommel, L., CARSWELLCRUMPTON, C., Hanawalt, P. C.
1995; 336 (2): 181-192
- **DNA-REPAIR IN THE MYC AND FMS PROTOONCOGENES IN ULTRAVIOLET LIGHT-IRRADIATED HUMAN HL-60 PROMYELOCYTIC CELLS DURING DIFFERENTIATION** *CANCER RESEARCH*
Islas, A. L., Hanawalt, P. C.
1995; 55 (2): 336-341
- **TRANSCRIPTION-COUPLED REPAIR OF PSORALEN CROSS-LINKS BUT NOT MONOADDUCTS IN CHINESE-HAMSTER OVARY CELLS** *BIOCHEMISTRY*
Islas, A. L., Baker, F. J., Hanawalt, P. C.
1994; 33 (35): 10794-10799
- **PHOTOACTIVATED GILVOCARCIN-V INDUCES DNA-PROTEIN CROSS-LINKING IN GENES FOR HUMAN RIBOSOMAL-RNA AND DIHYDROFOLATE-REDUCTASE** *PHOTOCHEMISTRY AND PHOTOBIOLOGY*
Matsumoto, A., Fujiwara, Y., Elespuru, R. K., Hanawalt, P. C.
1994; 60 (3): 225-230
- **TRANSCRIPT CLEAVAGE BY RNA-POLYMERASE-II ARRESTED BY A CYCLOBUTANE PYRIMIDINE DIMER IN THE DNA-TEMPLATE** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Donahue, B. A., Yin, S., Taylor, J. S., Reines, D., Hanawalt, P. C.
1994; 91 (18): 8502-8506
- **PREFERENTIAL REPAIR OF ULTRAVIOLET LIGHT-INDUCED DNA-DAMAGE IN THE TRANSCRIBED STRAND OF THE HUMAN P53 GENE** *MOLECULAR CARCINOGENESIS*
Ford, J. M., Lommel, L., Hanawalt, P. C.
1994; 10 (2): 105-109
- **REPAIR AND TRANSCRIPTION - COLLISION OR COLLUSION** *CURRENT BIOLOGY*
Hanawalt, P. C., Donahue, B. A., Sweder, K. S.
1994; 4 (6): 518-521
- **REMOVAL OF CYCLOBUTANE PYRIMIDINE DIMERS FROM A UV-IRRADIATED SHUTTLE VECTOR INTRODUCED INTO HUMAN-CELLS** *SOMATIC CELL AND MOLECULAR GENETICS*
Ganesan, A. K., Hanawalt, P. C.
1994; 20 (3): 233-242
- **REPAIR IN RIBOSOMAL-RNA GENES IS DEFICIENT IN XERODERMA-PIGMENTOSUM GROUP-C AND IN COCKAYNES-SYNDROME CELLS** *MUTATION RESEARCH*
Christians, F. C., Hanawalt, P. C.
1994; 323 (4): 179-187
- **THE COOH TERMINUS OF SUPPRESSOR OF STEM-LOOP (SSL2/RAD25) IN YEAST IS ESSENTIAL FOR OVERALL GENOMIC EXCISION-REPAIR AND TRANSCRIPTION-COUPLED REPAIR** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Sweder, K. S., Hanawalt, P. C.
1994; 269 (3): 1852-1857
- **EVOLUTION OF CONCEPTS IN DNA-REPAIR** *ENVIRONMENTAL AND MOLECULAR MUTAGENESIS*
Hanawalt, P. C.
1994; 23: 78-85
- **ANALYSIS OF THE FINE-STRUCTURE OF THE REPAIR OF ANTI-BENZO[A]PYRENE-7,8-DIOL-9,10-EPOXIDE-DNA ADDUCTS IN MAMMALIAN-CELLS BY LASER-INDUCED STRAND CLEAVAGE** *14th International Symposium on Polycyclic Aromatic Compounds/1st Biennial Meeting of the International-Society-for-Polycyclic-Aromatic-Compounds*

Baird, W. M., Smith, C. A., Spivak, G., Mauthe, R. J., Hanawalt, P. C.
GORDON BREACH SCI PUBL LTD.1994: 169-76

- **TRANSCRIPTION-COUPLED DNA-REPAIR** *SCIENCE*
Sweder, K. S., Hanawalt, P. C.
1993; 262 (5132): 439-439
- **LACK OF TRANSCRIPTION-COUPLED REPAIR IN MAMMALIAN RIBOSOMAL-RNA GENES** *BIOCHEMISTRY*
Christians, F. C., Hanawalt, P. C.
1993; 32 (39): 10512-10518
- **RECA MUTATIONS THAT REDUCE THE CONSTITUTIVE COPROTEASE ACTIVITY OF THE RECA1202(PRT(C)) PROTEIN - POSSIBLE INVOLVEMENT OF INTERFILAMENT ASSOCIATION IN PROTEOLYTIC AND RECOMBINATION ACTIVITIES** *JOURNAL OF BACTERIOLOGY*
Liu, S. K., Eisen, J. A., Hanawalt, P. C., Tessman, I.
1993; 175 (20): 6518-6529
- **CLOSE-FITTING SLEEVES - RECOGNITION OF STRUCTURAL DEFECTS IN DUPLEX DNA** *MUTATION RESEARCH*
Hanawalt, P. C.
1993; 289 (1): 7-15
- **DIGESTION OF DAMAGED DNA BY THE T7 DNA POLYMERASE-EXONUCLEASE** *BIOCHEMICAL JOURNAL*
Koehler, D. R., Hanawalt, P. C.
1993; 293: 451-453
- **INCREASED UV RESISTANCE OF A XERODERMA-PIGMENTOSUM REVERTANT CELL-LINE IS CORRELATED WITH SELECTIVE REPAIR OF THE TRANSCRIBED STRAND OF AN EXPRESSED GENE** *MOLECULAR AND CELLULAR BIOLOGY*
Lommel, L., Hanawalt, P. C.
1993; 13 (2): 970-976
- **STRANDED IN AN ACTIVE GENE** *CURRENT BIOLOGY*
Hanawalt, P., Mellon, I.
1993; 3 (1): 67-69
- **GENOMIC HETEROGENEITY OF DNA-REPAIR - ROLE IN AGING** *ANNALS OF THE NEW YORK ACADEMY OF SCIENCES*
Hanawalt, P. C., Gee, P., Ho, L., Hsu, R. K., Kane, C. J.
1992; 663: 17-25
- **PREFERENTIAL REPAIR OF CYCLOBUTANE PYRIMIDINE DIMERS IN THE TRANSCRIBED STRAND OF A GENE IN YEAST CHROMOSOMES AND PLASMIDS IS DEPENDENT ON TRANSCRIPTION** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Sweder, K. S., Hanawalt, P. C.
1992; 89 (22): 10696-10700
- **INTRAGENOMIC REPAIR HETEROGENEITY OF DNA DAMAGE** *ENVIRONMENTAL HEALTH PERSPECTIVES*
Scicchitano, D. A., Hanawalt, P. C.
1992; 98: 45-51
- **INHIBITION OF TRANSCRIPTION AND STRAND-SPECIFIC DNA-REPAIR BY ALPHA-AMANITIN IN CHINESE-HAMSTER OVARY CELLS** *MUTATION RESEARCH*
Christians, F. C., Hanawalt, P. C.
1992; 274 (2): 93-101
- **TRANSLATION DNA-SYNTHESIS IN THE DIHYDROFOLATE-REDUCTASE DOMAIN OF UV-IRRADIATED CHO CELLS** *BIOCHEMISTRY*
Spivak, G., Hanawalt, P. C.
1992; 31 (29): 6794-6800
- **LOCALIZED TORSIONAL TENSION IN THE DNA OF HUMAN-CELLS** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Ljungman, M., Hanawalt, P. C.
1992; 89 (13): 6055-6059

- **EFFICIENT PROTECTION AGAINST OXIDATIVE DNA DAMAGE IN CHROMATIN** *MOLECULAR CARCINOGENESIS*
Ljungman, M., Hanawalt, P. C.
1992; 5 (4): 264-269
- **GENOMIC HETEROGENEITY OF DNA-REPAIR - ROLE IN AGING** *CONF ON AGING AND CELLULAR DEFENSE MECHANISMS*
Hanawalt, P. C., Gee, P., Ho, L., Hsu, R. K., Kane, C. J.
NEW YORK ACAD SCIENCES.1992: 17-25
- **GENE-SPECIFIC DNA-REPAIR IN TERMINALLY DIFFERENTIATING RAT MYOBLASTS** *MUTATION RESEARCH*
Ho, L., Hanawalt, P. C.
1991; 255 (2): 123-141
- **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*
Lommel, L., Hanawalt, P. C.
1991; 255 (2): 183-191
- **DIRECT EVIDENCE FOR SPATIAL AND TEMPORAL REGULATION OF TRANSFORMING GROWTH-FACTOR BETA-1 EXPRESSION DURING CUTANEOUS WOUND-HEALING** *JOURNAL OF CELLULAR PHYSIOLOGY*
Kane, C. J., Hebda, P. A., MANSBRIDGE, J. N., Hanawalt, P. C.
1991; 148 (1): 157-173
- **DIFFERENTIAL INTRODUCTION AND REPAIR OF PSORALEN PHOTOADDUCTS TO DNA IN SPECIFIC HUMAN GENES** *CANCER RESEARCH*
Islas, A. L., Vos, J. M., Hanawalt, P. C.
1991; 51 (11): 2867-2873
- **HETEROGENEITY OF DNA-REPAIR AT THE GENE LEVEL** *MUTATION RESEARCH*
Hanawalt, P. C.
1991; 247 (2): 203-211
- **LACK OF SEQUENCE-SPECIFIC REMOVAL OF N-METHYLPURINES FROM CELLULAR DNA** *MUTATION RESEARCH*
Scicchitano, D. A., Hanawalt, P. C.
1990; 233 (1-2): 31-37
- **TRANSFORMING GROWTH FACTOR-BETA-1 LOCALIZATION IN NORMAL AND PSORIATIC EPIDERMAL-KERATINOCYTES INSITU** *JOURNAL OF CELLULAR PHYSIOLOGY*
Kane, C. J., KNAPP, A. M., MANSBRIDGE, J. N., Hanawalt, P. C.
1990; 144 (1): 144-150
- **DIFFERENTIAL REPAIR AND REPLICATION OF DAMAGED DNA IN RIBOSOMAL-RNA GENES IN DIFFERENT CHO CELL-LINES** *JOURNAL OF CELLULAR BIOCHEMISTRY*
WAUTHIER, E. L., Hanawalt, P. C., Vos, J. M.
1990; 43 (2): 173-183
- **SELECTIVE DNA-REPAIR IN ACTIVE GENES** *INTERNATIONAL SYMP ON DNA REPAIR, CHROMOSOME ALTERATIONS, AND CHROMATIN STRUCTURE UNDER ENVIRONMENTAL POLLUTIONS*
Hanawalt, P. C.
AKADEMIAI KIADO RT.1990: 77-91
- **DNA-REPAIR IN DIFFERENTIATING CELLS IN RELATION TO AGING** *COLLOQUIUM ON MOLECULAR BIOLOGY OF AGING*
Hanawalt, P. C., Gee, P., Ho, L.
WILEY-LISS, INC.1990: 45-51
- **Selective DNA repair in expressed genes in mammalian cells.** *Progress in clinical and biological research*
Hanawalt, P. C.
1990; 340A: 213-222
- **INDUCTION OF THE ESCHERICHIA-COLI LACTOSE OPERON SELECTIVELY INCREASES REPAIR OF ITS TRANSCRIBED DNA STRAND** *NATURE*
Mellon, I., Hanawalt, P. C.

- 1989; 342 (6245): 95-98
- **TRANSLATION SYNTHESIS IS THE MAIN COMPONENT OF SOS REPAIR IN BACTERIOPHAGE-LAMBDA DNA** *JOURNAL OF BACTERIOLOGY*
Defais, M., Lesca, C., Monsarrat, B., Hanawalt, P.
1989; 171 (9): 4938-4944
 - **QUANTIFICATION OF AMINOFLORENE ADDUCT FORMATION AND REPAIR IN DEFINED DNA-SEQUENCES IN MAMMALIAN-CELLS USING THE UVRABC NUCLEASE** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Tang, M. S., Bohr, V. A., Zhang, X. S., Pierce, J., Hanawalt, P. C.
1989; 264 (24): 14455-14462
 - **DNA INTERSTRAND CROSS-LINKS PROMOTE CHROMOSOMAL INTEGRATION OF A SELECTED GENE IN HUMAN-CELLS** *MOLECULAR AND CELLULAR BIOLOGY*
Vos, J. M., Hanawalt, P. C.
1989; 9 (7): 2897-2905
 - **REPAIR ANALYSIS OF MITOMYCIN C-INDUCED DNA CROSSLINKING IN RIBOSOMAL-RNA GENES IN LYMPHOBLASTOID-CELLS FROM FANCONIS ANEMIA PATIENTS** *MUTATION RESEARCH*
Matsumoto, A., Vos, J. M., Hanawalt, P. C.
1989; 217 (3): 185-192
 - **REPAIR OF N-METHYLPURINES IN SPECIFIC DNA-SEQUENCES IN CHINESE-HAMSTER OVARY CELLS - ABSENCE OF STRAND SPECIFICITY IN THE DIHYDROFOLATE-REDUCTASE GENE** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Scicchitano, D. A., Hanawalt, P. C.
1989; 86 (9): 3050-3054
 - **DEMETHYLATION ENHANCES REMOVAL OF PYRIMIDINE DIMERS FROM THE OVERALL GENOME AND FROM SPECIFIC DNA-SEQUENCES IN CHINESE-HAMSTER OVARY CELLS** *MOLECULAR AND CELLULAR BIOLOGY*
Ho, L., Bohr, V. A., Hanawalt, P. C.
1989; 9 (4): 1594-1603
 - **EFFECT OF DNA DAMAGE ON STABLE TRANSFORMATION OF MAMMALIAN-CELLS WITH INTEGRATIVE AND EPISOMAL PLASMIDS** *MUTATION RESEARCH*
Vos, J. M., Hanawalt, P. C.
1989; 220 (2-3): 205-220
 - **CONCEPTS AND MODELS FOR DNA-REPAIR - FROM ESCHERICHIA-COLI TO MAMMALIAN-CELLS** *ENVIRONMENTAL AND MOLECULAR MUTAGENESIS*
Hanawalt, P. C.
1989; 14: 90-98
 - **RELATIONSHIPS BETWEEN DNA-REPAIR AND TRANSCRIPTION IN DEFINED DNA-SEQUENCES IN MAMMALIAN-CELLS** *NATO ADVANCED RESEARCH WORKSHOP ON DNA REPAIR MECHANISMS AND THEIR BIOLOGICAL IMPLICATIONS IN MAMMALIAN CELLS*
Hanawalt, P., Mellon, I., SCICCHITANO, D., Spivak, G.
PLENUM PRESS DIV PLENUM PUBLISHING CORP.1989: 325-337
 - **PREFERENTIAL REPAIR OF DAMAGE IN ACTIVELY TRANSCRIBED DNA-SEQUENCES INVIVO** *16TH INTERNATIONAL CONGRESS OF GENETICS : GENETICS AND THE UNITY OF BIOLOGY*
Hanawalt, P. C.
NATL RESEARCH COUNCIL CANADA.1989: 605-11
 - **DNA DAMAGE STIMULATES HUMAN CELL-TRANSFORMATION BY INTEGRATIVE BUT NOT EPISOMAL EPSTEIN-BARR VIRUS-DERIVED PLASMID** *MOLECULAR CARCINOGENESIS*
Vos, J. M., WAUTHIER, E. L., Hanawalt, P. C.
1989; 2 (5): 237-244
 - **TEMPERATURE-DEPENDENT SURVIVAL OF UV-IRRADIATED ESCHERICHIA-COLI-K12** *MOLECULAR & GENERAL GENETICS*
Ganesan, A. K., Hunt, J., Hanawalt, P. C.
1988; 214 (2): 198-203

- **COMPARATIVE REMOVAL OF PYRIMIDINE DIMERS FROM HUMAN EPIDERMAL-KERATINOCYTES INVIVO AND INVITRO** *JOURNAL OF INVESTIGATIVE DERMATOLOGY*
REUSCH, M. K., Meager, K., Leadon, S. A., Hanawalt, P. C.
1988; 91 (4): 349-352
- **HUMAN REPAIR GENE RESTORES NORMAL PATTERN OF PREFERENTIAL DNA-REPAIR IN REPAIR DEFECTIVE CHO CELLS** *NUCLEIC ACIDS RESEARCH*
Bohr, V. A., CHU, E. H., VANDUIN, M., Hanawalt, P. C., OKUMOTO, D. S.
1988; 16 (15): 7397-7403
- **HIGH-EFFICIENCY TRANSFORMATION OF BACTERIAL-CELLS BY ELECTROPORATION** *JOURNAL OF BACTERIOLOGY*
CALVIN, N. M., Hanawalt, P. C.
1988; 170 (6): 2796-2801
- **ROLE OF TRANSFORMING GROWTH FACTOR-BETA IN THE MATURATION OF HUMAN EPIDERMAL-KERATINOCYTES** *JOURNAL OF INVESTIGATIVE DERMATOLOGY*
MANSBRIDGE, J. N., Hanawalt, P. C.
1988; 90 (3): 336-341
- **ENHANCED TRANSFORMING ACTIVITY OF PSV2 PLASMIDS IN HUMAN-CELLS DEPENDS UPON THE TYPE OF DAMAGE INTRODUCED INTO THE PLASMID** *MUTATION RESEARCH*
Spivak, G., Leadon, S. A., Vos, J. M., Meade, S., Hanawalt, P. C., Ganesan, A. K.
1988; 193 (2): 97-108
- **DNA-REPAIR IN GENES** *PHARMACOLOGY & THERAPEUTICS*
Bohr, V. A., Hanawalt, P. C.
1988; 38 (3): 305-319
- **HETEROGENEOUS DNA DAMAGE AND REPAIR IN THE MAMMALIAN GENOME** *CANCER RESEARCH*
Bohr, V. A., Phillips, D. H., Hanawalt, P. C.
1987; 47 (24): 6426-6436
- **PREFERENTIAL DNA-REPAIR IN EXPRESSED GENES** *ENVIRONMENTAL HEALTH PERSPECTIVES*
Hanawalt, P. C.
1987; 76: 9-14
- **SELECTIVE REMOVAL OF TRANSCRIPTION-BLOCKING DNA DAMAGE FROM THE TRANSCRIBED STRAND OF THE MAMMALIAN DHFR GENE** *CELL*
Mellon, I., Spivak, G., Hanawalt, P. C.
1987; 51 (2): 241-249
- **ENHANCED TRANSFORMING ACTIVITY OF ULTRAVIOLET-IRRADIATED PSV2-GPT IS DUE TO DAMAGE OUTSIDE THE GPT TRANSCRIPTION UNIT** *PLASMID*
Leadon, S. A., Ganesan, A. K., Hanawalt, P. C.
1987; 18 (2): 135-141
- **ENHANCED REPAIR OF PYRIMIDINE DIMERS IN CODING AND NONCODING GENOMIC SEQUENCES IN CHO CELLS EXPRESSING A PROKARYOTIC DNA-REPAIR GENE** *CARCINOGENESIS*
Bohr, V. A., Hanawalt, P. C.
1987; 8 (9): 1333-1336
- **PROCESSING OF PSORALEN ADDUCTS IN AN ACTIVE HUMAN-GENE - REPAIR AND REPLICATION OF DNA CONTAINING MONOADDUCTS AND INTERSTRAND CROSS-LINKS** *CELL*
Vos, J. M., Hanawalt, P. C.
1987; 50 (5): 789-799
- **PHOTOADDUCTS OF 8-METHOXYPsorALEN TO CYTOSINE IN DNA** *PHOTOCHEMISTRY AND PHOTOBIOLOGY*
CALVIN, N. M., Hanawalt, P. C.
1987; 45 (3): 323-330

- **TOPICAL TREATMENT OF PSORIASIS WITH THE TOPOISOMERASE INHIBITORS NOVOBIOCIN AND NALIDIXIC-ACID - A PILOT-STUDY** *ARCHIVES OF DERMATOLOGICAL RESEARCH*
Bohr, V. A., Abel, E. A., Farber, E. M., Hanawalt, P. C.
1987; 279 (3): 147-150
- **CHARACTERIZATION OF A DNA-REPAIR DOMAIN CONTAINING THE DIHYDROFOLATE-REDUCTASE GENE IN CHINESE-HAMSTER OVARY CELLS** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Bohr, V. A., OKUMOTO, D. S., Ho, L., Hanawalt, P. C.
1986; 261 (35): 6666-6672
- **Characterization of a DNA repair domain containing the dihydrofolate reductase gene in Chinese hamster ovary cells.** *journal of biological chemistry*
Bohr, V. A., OKUMOTO, D. S., Ho, L., Hanawalt, P. C.
1986; 261 (35): 16666-16672
- **PREFERENTIAL DNA-REPAIR OF AN ACTIVE GENE IN HUMAN-CELLS** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Mellon, I., Bohr, V. A., Smith, C. A., Hanawalt, P. C.
1986; 83 (23): 8878-8882
- **PROCESSIVITY OF T4 ENDONUCLEASE-V IS SENSITIVE TO NA CL CONCENTRATION** *BIOCHEMISTRY*
Ganesan, A. K., SEAWELL, P. C., Lewis, R. J., Hanawalt, P. C.
1986; 25 (19): 5751-5755
- **RAPID REPAIR OF THE DHFR GENE IN HUMAN-CELLS**
Mellon, I., Bohr, V., Smith, C. A., Hanawalt, P. C.
NATURE PUBLISHING GROUP.1986: 361-61
- **CELL-CYCLE-DEPENDENT REPAIR OF DAMAGE IN ALPHA-DNA AND BULK DNA OF MONKEY CELLS** *MUTATION RESEARCH*
Leadon, S. A., Hanawalt, P. C.
1986; 166 (1): 71-77
- **SURVIVAL OF UV-IRRADIATED MAMMALIAN-CELLS CORRELATES WITH EFFICIENT DNA-REPAIR IN AN ESSENTIAL GENE** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Bohr, V. A., OKUMOTO, D. S., Hanawalt, P. C.
1986; 83 (11): 3830-3833
- **COMPARATIVE EFFECTS OF GROWTH-INHIBITORS ON DNA-REPLICATION, DNA-REPAIR, AND PROTEIN-SYNTHESIS IN HUMAN EPIDERMAL-KERATINOCYTES** *CANCER RESEARCH*
Bohr, V., Mansbridge, J., Hanawalt, P.
1986; 46 (6): 2929-2935
- **DIFFERENTIAL DNA-REPAIR IN TRANSCRIPTIONALLY ACTIVE AND INACTIVE PROTOONCOGENES - C-ABL AND C-MOS** *CELL*
Madhani, H. D., Bohr, V. A., Hanawalt, P. C.
1986; 45 (3): 417-423
- **CANCER-PRONE HEREDITARY-DISEASES WITH DNA PROCESSING ABNORMALITIES** *TRENDS IN GENETICS*
Hanawalt, P. C., Sarasin, A.
1986; 2 (5): 124-129
- **ALPHA-DNA IN AFRICAN-GREEN MONKEY CELLS IS ORGANIZED INTO EXTREMELY LONG TANDEM ARRAYS** *JOURNAL OF BIOLOGICAL CHEMISTRY*
Madhani, H. D., Leadon, S. A., Smith, C. A., Hanawalt, P. C.
1986; 261 (5): 2314-2318
- **SUBSTRATE RANGE OF THE 40000-DALTON DNA-PHOTOREACTIVATING ENZYME FROM ESCHERICHIA-COLI** *BIOCHEMISTRY*
Sutherland, B. M., Oliveira, O. M., Ciarrocchi, G., Brash, D. E., Haseltine, W. A., Lewis, R. J., Hanawalt, P. C.
1986; 25 (3): 681-687
- **EFFECT OF A LEXA41(TS) MUTATION ON DNA-REPAIR IN RECA(DEF) DERIVATIVES OF ESCHERICHIA-COLI K-12** *MOLECULAR AND GENERAL GENETICS*
Ganesan, A. K., Hanawalt, P. C.

- 1985; 201 (3): 201-387
- **Effect of a *lexA41(Ts)* mutation on DNA repair in *recA(Def)* derivatives of *Escherichia coli* K-12.** *Molecular & general genetics : MGG*
Ganesan, A. K., Hanawalt, P. C.
1985; 201 (3): 387-392
 - **ROLE OF SOLAR CONDITIONING IN DNA-REPAIR RESPONSE AND SURVIVAL OF HUMAN EPIDERMAL-KERATINOCYTES FOLLOWING UV IRRADIATION** *JOURNAL OF INVESTIGATIVE DERMATOLOGY*
Liu, S. C., Meagher, K., Hanawalt, P. C.
1985; 85 (2): 93-97
 - **TOWARD A RATIONAL THERAPY FOR PSORIASIS CUTIS**
Bohr, V., Hanawalt, P. C.
1985; 35 (1): 37-37
 - **DNA-REPAIR IN AN ACTIVE GENE - REMOVAL OF PYRIMIDINE DIMERS FROM THE DHFR GENE OF CHO CELLS IS MUCH MORE EFFICIENT THAN IN THE GENOME OVERALL** *CELL*
Bohr, V. A., Smith, C. A., OKUMOTO, D. S., Hanawalt, P. C.
1985; 40 (2): 359-369
 - **Repair of furocoumarin adducts in mammalian cells.** *National Cancer Institute monograph*
Zolan, M. E., Smith, C. A., Hanawalt, P. C.
1984; 66: 137-142
 - **ULTRAVIOLET-IRRADIATION OF MONKEY CELLS ENHANCES THE REPAIR OF DNA ADDUCTS IN ALPHA-DNA** *CARCINOGENESIS*
Leadon, S. A., Hanawalt, P. C.
1984; 5 (11): 1505-1510
 - **Factors that affect the initiation of excision-repair in chromatin.** *Nucleic acids symposium series*
Bohr, V., Hanawalt, P.
1984: 109-125
 - **ELECTROPHORETIC SEPARATION OF FUROCOUMARIN - DNA PHOTOADDUCTS** *PHOTOCHEMISTRY AND PHOTOBIOLOGY*
CALVIN, N. M., Hanawalt, P. C.
1984; 40 (2): 161-170
 - **FORMATION AND REPAIR OF FUROCOUMARIN ADDUCTS IN ALPHA-DEOXYRIBONUCLEIC ACID AND BULK DEOXYRIBONUCLEIC-ACID OF MONKEY CELLS** *BIOCHEMISTRY*
Zolan, M. E., Smith, C. A., Hanawalt, P. C.
1984; 23 (1): 63-69
 - **DNA repair in cultured keratinocytes.** *journal of investigative dermatology*
Liu, S. C., Parsons, S., Hanawalt, P. C.
1983; 81 (1): 179s-83s
 - **RESTRICTED REPAIR OF AFLATOXIN-B1 INDUCED DAMAGE IN ALPHA-DNA OF MONKEY CELLS** *NUCLEIC ACIDS RESEARCH*
Leadon, S. A., Zolan, M. E., Hanawalt, P. C.
1983; 11 (16): 5675-5689
 - **VIRAL PROBES FOR DNA-REPAIR** *ADVANCES IN RADIATION BIOLOGY*
DEFAIS, M. J., Hanawalt, P. C., SARASIN, A. R.
1983; 10: 1-37
 - **DNA-REPAIR IN CULTURED KERATINOCYTES** *JOURNAL OF INVESTIGATIVE DERMATOLOGY*
Liu, S. C., Parsons, S., Hanawalt, P. C.
1983; 81 (1): S179-S183
 - **MONOCLONAL-ANTIBODY TO DNA CONTAINING THYMINE GLYCOL** *MUTATION RESEARCH*
Leadon, S. A., Hanawalt, P. C.
1983; 112 (4): 191-200

- **DEFICIENT REPAIR OF CHEMICAL ADDUCTS IN ALPHA-DNA OF MONKEY CELLS** *CELL*
Zolan, M. E., Cortopassi, G. A., Smith, C. A., Hanawalt, P. C.
1982; 28 (3): 613-619
- **DNA-REPAIR RESPONSE IN HUMAN EPIDERMAL-KERATINOCYTES FROM DONORS OF DIFFERENT AGE** *JOURNAL OF INVESTIGATIVE DERMATOLOGY*
LIU, S. C., Parsons, C. S., Hanawalt, P. C.
1982; 79 (5): 330-335
- **ALKALI-SENSITIVE SITES IN DNA FROM HUMAN-CELLS TREATED WITH ULTRAVIOLET-LIGHT, 1'-ACETOXYSAFROLE OR 1'-ACETOXYESTRAGOLE** *CARCINOGENESIS*
Phillips, D. H., Hanawalt, P. C.
1982; 3 (8): 935-940
- **LIGATION OF OLIGONUCLEOTIDES BY PYRIMIDINE DIMERS - A MISSING LINK IN THE ORIGIN OF LIFE** *NATURE*
Lewis, R. J., Hanawalt, P. C.
1982; 298 (5872): 393-396
- **REPAIR REPLICATION CHARACTERISTICS OF HUMAN-CELLS EXPOSED TO 1'-ACETOXYSAFROLE OR 1'-ACETOXYESTRAGOLE** *CARCINOGENESIS*
Phillips, D. H., Hanawalt, P. C.
1982; 3 (8): 929-934
- **REARRANGEMENT OF MAMMALIAN CHROMATIN STRUCTURE FOLLOWING EXCISION REPAIR** *NATURE*
Zolan, M. E., Smith, C. A., CALVIN, N. M., Hanawalt, P. C.
1982; 299 (5882): 462-464
- **REPAIR RESPONSES TO DNA DAMAGE - ENZYMATIC PATHWAYS IN ESCHERICHIA-COLI AND HUMAN-CELLS** *JOURNAL OF CELLULAR BIOCHEMISTRY*
Hanawalt, P. C., Cooper, P. K., Ganesan, A. K., Lloyd, R. S., Smith, C. A., Zolan, M. E.
1982; 18 (3): 271-283
- **REPAIR IN ALPHA-DNA OF AFRICAN-GREEN MONKEY CELLS**
Zolan, M. E., Smith, C. A., Hanawalt, P. C.
ROCKEFELLER UNIV PRESS.1981: A74-A74
- **EXPRESSION OF THE DENV GENE OF BACTERIOPHAGE-T4 CLONED IN ESCHERICHIA-COLI** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA-BIOLOGICAL SCIENCES*
Lloyd, R. S., Hanawalt, P. C.
1981; 78 (5): 2796-2800
- **DNA-REPAIR RESPONSES IN HUMAN-SKIN CELLS** *JOURNAL OF INVESTIGATIVE DERMATOLOGY*
Hanawalt, P. C., Liu, S. C., Parsons, C. S.
1981; 77 (1): 86-90
- **THE INVIVO FORMATION AND REPAIR OF DNA ADDUCTS FROM 1'-HYDROXYSAFROLE** *JOURNAL OF SUPRAMOLECULAR STRUCTURE AND CELLULAR BIOCHEMISTRY*
Phillips, D. H., Hanawalt, P. C., Miller, J. A., Miller, E. C.
1981; 16 (1): 83-90
- **SENSITIVE DETERMINATION OF PYRIMIDINE DIMERS IN DNA OF UV-IRRADIATED MAMMALIAN-CELLS - INTRODUCTION OF T4 ENDONUCLEASE-V INTO FROZEN AND THAWED CELLS** *MUTATION RESEARCH*
VanZeeland, A. A., Smith, C. A., Hanawalt, P. C.
1981; 82 (1): 173-189
- **DNA-REPAIR IN HUMAN-CELLS CONTAINING PHOTOADDUCTS OF 8-METHOXYPSORALEN OR ANGELICIN** *CANCER RESEARCH*
Kaye, J., Smith, C. A., Hanawalt, P. C.
1980; 40 (3): 696-702
- **REPLICATION OF ULTRAVIOLET-IRRADIATED SIMIAN VIRUS-40 IN MONKEY KIDNEY-CELLS** *JOURNAL OF MOLECULAR BIOLOGY*
SARASIN, A. R., Hanawalt, P. C.

1980; 138 (2): 299-319

- **PROCESSIVE ACTION OF T4 ENDONUCLEASE-V ON ULTRAVIOLET-IRRADIATED DNA** *NUCLEIC ACIDS RESEARCH*
Lloyd, R. S., Hanawalt, P. C., Dodson, M. L.
1980; 8 (21): 5113-5127
- **DNA-REPAIR IN BACTERIA AND MAMMALIAN-CELLS** *ANNUAL REVIEW OF BIOCHEMISTRY*
Hanawalt, P. C., Cooper, P. K., Ganesan, A. K., Smith, C. A.
1979; 48: 783-836
- **PHAGE-T4 ENDONUCLEASE-V STIMULATES DNA-REPAIR REPLICATION IN ISOLATED-NUCLEI FROM ULTRAVIOLET-IRRADIATED HUMAN CELLS, INCLUDING XERODERMA PIGMENTOSUM FIBROBLASTS** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Smith, C. A., Hanawalt, P. C.
1978; 75 (6): 2598-2602
- **CARCINOGENS ENHANCE SURVIVAL OF UV-IRRADIATED SIMIAN-VIRUS 40 IN TREATED MONKEY KIDNEY CELLS - INDUCTION OF A RECOVERY PATHWAY** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
SARASIN, A. R., Hanawalt, P. C.
1978; 75 (1): 346-350
- **REPAIR OF DNA IN HUMAN CELLS AFTER TREATMENT WITH ACTIVATED AFLATOXIN-B1** *CANCER RESEARCH*
SARASIN, A. R., Smith, C. A., Hanawalt, P. C.
1977; 37 (6): 1786-1793
- **REPAIR REPLICATION IN HUMAN CELLS - SIMPLIFIED DETERMINATION UTILIZING HYDROXYUREA** *BIOCHIMICA ET BIOPHYSICA ACTA*
Smith, C. A., Hanawalt, P. C.
1976; 432 (3): 336-347
- **REPAIR REPLICATION IN CULTURED NORMAL AND TRANSFORMED HUMAN FIBROBLASTS** *BIOCHIMICA ET BIOPHYSICA ACTA*
Smith, C. A., Hanawalt, P. C.
1976; 447 (2): 121-132