(Jan 2019)

CURRICULUM VITAE

ARTHUR PATRICK GROLLMAN

Present Position
Distinguished Professor, Department of Pharmacological Sciences
Professor, Department of Medicine
School of Medicine, Health Science Center
Stony Brook University, Stony Brook NY 11794

Education
B.A. in Chemistry, University of California, 1955
M.D., Johns Hopkins University School of Medicine, 1959

Academic Appointments

2007-2008 Visiting Scholar, U. of Washington, Department of Pathology;
Visiting Professor, New York University, Department of Pharmacology.

2003- Distinguished Professor of Pharmacological Sciences
Stony Brook University

1998-1999 Visiting Professor, Weizmann Institute of Science, Department of Structural Biology, Rehovot, Israel; Visiting Professor, Hebrew University, Department of Chemistry, Jerusalem, Israel; Visiting Scientist, Stanford University, Department of Medical Informatics

1994-1996 Associate Dean for Scientific Affairs, SUNY Stony Brook

1993-2003 Leading Professor of Pharmacological Sciences

1993 - Director, Leo and Judy Zickler Laboratory of Chemical Biology
Evelyn Glick Professor of Experimental Medicine

1990-1991 Visiting Professor: Stanford University, Department of Biology; University of California at San Francisco, Computer Graphics Laboratory; Visiting Scientist, National Cancer Research Institute, Tokyo, Japan

1983-1984 Visiting Professor, Johns Hopkins University School of Medicine
Department of Molecular Biology and Genetics, Baltimore, Maryland

1974-2000 Chairman, Department of Pharmacological Sciences
Stony Brook University

1974-1993 Professor of Pharmacological Sciences, Stony Brook University

1974 - Professor of Medicine, Stony Brook University

1972-1973 Associate Dean for Scientific and Administrative Affairs, Albert Einstein College of Medicine

1971-1974 Professor of Pharmacology, Albert Einstein College of Medicine

1969-1974 Associate Professor of Molecular Biology and Associate Professor of Medicine, Albert Einstein College of Medicine

1968-1971 Associate Professor of Pharmacology, Albert Einstein College of Medicine

1966-1969 Assistant Professor of Medicine and Assistant Professor of Molecular Biology, Albert Einstein College of Medicine

1963-1966 Associate in Molecular Biology and Medicine, Albert Einstein College of Medicine

Non-Academic Appointments

1963-1971 Career Scientist of the Health Research Council of the City of New York
1961-1963 Senior Surgeon, U.S. Public Health Service
1961-1963 Research Associate, National Institute for Arthritis and Metabolic Diseases, National Institutes of Health

Clinical Appointments

1974-2000 Attending Physician, Northport Veterans Administration Hospital and Stony Brook University Hospital

1969-1974 Associate Attending Physician, Bronx Municipal Hospital Center and the Hospital of the Albert Einstein College of Medicine, Bronx, New York

1963-1969 Assistant Attending Physician, Bronx Municipal Hospital Center and Lincoln Hospital, Bronx, New York

1961-1963 Attending Physician (OPD), Johns Hopkins Hospital, Baltimore, Maryland

1959-1961 Intern and Resident in Internal Medicine, Johns Hopkins Hospital, Baltimore, Maryland

Honors

Phi Beta Kappa
Henry Strong Dennison Scholar in Physiological Chemistry
American Cancer Society Scholar in Cancer Research (1983, 1991)
Hnilica Memorial Lecturer, Vanderbilt University
Engebretson Lecturer
MERIT Award, National Cancer Institute
Forscheim Professor, Weizmann Institute of Science (1998)
Lady Davis Professor, Hebrew University of Jerusalem (1999)
Johns Hopkins Society of Scholars
Environmental Mutagen Society Award (2011)
Fellow: Institute for Science in Medicine
International Lectureship, Princess Takamatsu Cancer Research Fund (2014)
Founders Award, ACS Division of Chemical Toxicology (2015)
Distinguished Alumnus of Johns Hopkins University (2016)
National Academy of Inventors (2018)

Editorial Boards
DNA Repair (2002 -)
Chemical Research in Toxicology (1994-1996)
Cancer Research (1985-1989)

Professional Activities

2012-2013	National Academy of Sciences-National Research Council, Review of the Styrene Assessment in the National Toxicology Program
2008-2009	National Toxicology Program: Chair: Aristolochic Acid-Related Exposures Expert Panel: 12th Report on Carcinogens
2007-2011	National Institute for Environmental Health Sciences: Environmental Health Sciences Review Committee
2001-2006	National Institute for Environmental Health Sciences: Board of Scientific Counselors,
1997- 1999	Swartz Institute for Computational Neurobiology: Board of Directors
1996-1999	American Association of Medical Colleges: Executive Committee
1995-1999	American Association of Medical Colleges: Council of Academic Societies: Ad Board
1995-1996	Lawrence Livermore Biology and Biotechnology Research Program: Advisory Board
1993-2008	National Caucus of Basic Biomedical Chairs
1992-1994	American Cancer Society: Board of Directors
1990-1994	National Institutes of Health: Chemical Pathology Study Section
1990- 2000	American Association of Medical Colleges: Council of Academic Societies
1990-1999	U.S.-Japan Medical Research Committee: Panel on Environmental Mutagenesis and Carcinogenesis
1983-1987	American Cancer Society: Advisory Council
1981-1985	Damon Runyon/Walter Winchell Cancer Fund: Scientific Advisory Committee
1975-1979	National Amyotropic Lateral Sclerosis Foundation: Advisory Council and Grants Review Board
1975-1978	American Heart Association—New York Affiliate: Advisory Council

1971-1976 National Academy of Sciences—National Research Council, Drug Research Board. Committee on Problems of Drug Safety

1971-1973 National Institutes of Health—Advisory Committee on Antiviral Substances

1970-1974 National Institutes of Health, Pharmacology B Study Section

1966-1970 National Institutes of Health, Committee on Chemical-Biological Data Handling

Professional Societies

American Association for Advancement of Science
American Society of Biological Chemists
American Physiological Society
American Society for Microbiology
American Society for Clinical Investigation
American Chemical Society
Environmental Mutagen Society
Infectious Disease Society
New York Academy of Sciences
American Society for Pharmacology and Experimental Therapeutics: Chairman, Program Committee (1970-1973); Executive Committee, Division of Clinical Pharmacology (1969-1972); Public Affairs Committee (1996-2000)
American Society for Cancer Research, Program Committee (1986-1989); Public Affairs Committee (1990-1993)

Invited Lectures (2005 – 2018)

2005

- University of California at San Diego, San Diego, CA
- National Institutes of Health: Conference on Dietary Supplements, Coagulation, and Antithrombotic Therapies, Bethesda, MD
- International Environmental Mutagen Society, 36th Annual Meeting, San Francisco, CA
- Chungnam University, Korea
- International Symposium on Toxicogenomics, Korea
- 2nd EU-US DNA Repair Meeting: Endogonous Stress, Base Excision Repair, and Related Processes. Erice, Italy

2006

- University of Cambridge, Cambridge, England
- Brown University, Providence, RI
- International Conference: Recent Advances in Endemic Nephropathy: Role of toxins in an environmental disease, Zagreb, Croatia
- North Dakota State University
- Mayo Clinic, Rochester, MN
- New York Medical College, Valhalla, NY
- University of Washington, Seattle, WA

2007

- University of British Columbia, Vancouver, Canada
- Simon Frazer University, Vancouver, Canada
- University of California at Berkeley, Berkeley, California
- International Conference: “Balkan Endemic Nephropathy and Associated Urothelial Cancer”, Belgrade, Serbia

2008

- Brookhaven National Laboratory (Distinguished Lecture Series)
- Nelson Institute of Environmental Medicine, Tuxedo, NY
- New York University School of Medicine, Department of Medicine, New York, NY

2009

- National Institute on Aging, Baltimore, MD
- International Conference on Environmental Mutagens (ICEM), Firenze, Italy
- Center for Inherited Disease Research, Johns Hopkins University, Baltimore, MD

2010

- Université Libre de Bruxelles, Brussels, Belgium
- Université Catholique de Louvain, Brussels, Belgium
- Erasmus University, Rotterdam, The Netherlands
- European Renal Association, 3rd Congress of Nephrology, Sarajevo, Bosnia
- Center for Molecular Toxicology, Vanderbilt University School of Medicine, Nashville, TN
- Pharmaceuticals in Historical Context. U of Wisconsin, Madison WI
- New York University School of Medicine, Department of Pathology, New York, NY

2011

- Columbia University School of Public Health, New York, NY
- Columbia University School of Medicine, Renal Grand Rounds, New York, NY
- Cold Spring Harbor Asia, Suzhou, China
- Environmental Mutagen Society, Award Lecture, Montreal, Canada
- International Agency for Research on Cancer, Lyon, France
- World Congress of Nephrology, Vancouver, BC

2012

- Weill Cornell Medical School, OB/GYN Grand Rounds, New York, NY
- Weill Cornell Medical School, Urology Grand Rounds, New York, NY
- Society of Urologic Oncology, Bethesda, MD

2013

- Albert Einstein College of Medicine, New York, NY
- Annual Meeting, American Urological Association (Plenary Lecture), San Diego, CA
- British Association of Urological Surgeons, Manchester, United Kingdom
- Gordon Research Conference on Drug Metabolism, Holderness, NH
- International Cancer Symposium, Keynote Lecture, Taipei, Taiwan
- Princess Takamatsu Cancer Research 44th International Symposium

2014

- University of Minnesota, Masonic Cancer Center, Minneapolis, MN
- American Chemical Society – Division of Chemical Toxicology, Nat'l Meeting, San Francisco, CA
- Tsukuba University, Japan
- Shizuoka Prefectural University, Japan
- Mie University, Japan
- Japanese Environmental Mutagen Society

2015

- Stanford University, Stanford, CA
- Icahn School of Medicine at Mount Sinai, New York, NY
- St. Jude Children's Research Hospital, Memphis, TN
- ACS Nat'l Meeting, Division of Chemical Toxicology, Founders Award, Boston, MA
- Tomas Lindahl Conference on DNA repair, Oslo, Norway

2016

- Stanford University, Stanford, CA

2018

- Medical University of Vienna, Vienna, Austria
- International Agency for Research on Cancer (IARC), Lyon, France
- Weitzmann Institute, Rehovot, Israel

Patents

Delivery of DNA or RNA via Gap Junctions from Host Cells to Target Cells and a Cell-based Delivery System for Antisense or SIRNA
Patent no. 8,188,062 - May 29, 2012

Methods and Materials for Assessing and Treating Cancer
International Application: PCT/US18/45669

PUBLICATIONS

1. Enzymic Synthesis of L-Ascorbic Acid in Different Animal Species.
   Grollman, A.P. and Lehninger, A.L.
   Arch. Biochem. Biophys. **69**, 458-467 (1957)

2. The Enzyme Conversion of D-Glucuronate to L-Ascorbate and L-Xylulose in Animal Tissues.
   Bublitz, C., Grollman, A.P., and Lehninger, A.L.
   Biochem. Biophys. Acta **27**, 221-222 (1958)

3. Metabolic Alkalosis, A Specific Effect of Adrenocortical Hormones.
   Grollman, A.P. and Gamble, J.L.
   Am. J. Physiol. **196**, 135-140 (1959)

4. TPN-L-Gulonate Dehydrogenase.
   York, J.L., Grollman, A.P., and Bublitz, C.
   Biochem. Biophys. Acta. **47**, 298-306 (1961)

5. The Renal Excretion of Citrate
   Grollman, A.P., Harrison, H.C., and Harrison, H.E.
   J. Clin. Invest. **40**, 1290-1296 (1961)

6. The Removal of Bilirubin by Albumin Binding During Peritoneal Dialysis.
   Grollman, A.P. and Odell, G.B.
   New Eng. J. Med. **267**, 279-282 (1962)

7. Site of Reabsorption of Citrate and Calcium in the Renal Tubule of the Dog
   Grollman, A.P. and Odell, G.B.
   Am. J. Physiol. **205**, 697-701 (1963)

8. Polysaccharide Antigens of Candida Cell Wall
   Summers, D., Grollman, A.P., and Hasenclever, H.F.
   J. Immunology **92**, 491-499 (1964)

9. O-Phosphorylethanolamine: A Component of Lipopolysaccharide in Certain Gram-Negative Bacteria
   Grollman, A.P. and Osborn, M.J.
   Biochemistry **3**, 1571-1574 (1964)

10. Biosynthesis of Fucosyllactose and Other Oligosaccharides Found in Milk
    Grollman, A.P., Hall, C.W., and Ginsburg, V.
    J. Biol. Chem. **240**, 975-981 (1965)

11. GDP-L Fucose: Lactose Fucosyltransferase from Mammary Gland
    Grollman, A.P.
    In: *Methods in Enzymology VIII, Complex Carbohydrates*. Neufeld, E.F. and Ginsburg, V. (Eds.), Academic Press, NY 351-353 (1965).

12. Studies of Blood Group Substances I. Caprine Precipitating Antisera to Human Le^a and Le^b Blood Group Substances
    Marcus, D.M. and Grollman, A.P.
    J. Immunology **97**, 867-875 (1966).

13. Enzymatic Incorporation of Fucose in Blood Group H Substance
    Grollman, A.P. and Marcus, D.M.
    Biochem. Biophys. Res. Commun. **25**, 542-548 (1966)

14. Structural Basis for Inhibition of Protein Biosynthesis by Emetine and Cycloheximide Based on an Analogy Between Ipecac Alkaloids and Glutarmide Antibiotics
    Grollman, A.P.
    Proc. Natl. Acad. Sci. USA **56**, 1867-1874 (1966)

15. Studies of Blood Group Substances II. Hemagglutinating Properties of Caprine Antisera to Human Le^a and Le^b Blood Group Substances
    Marcus, D.M., Bastani, A.M., Rosenfield, R.E., and Grollman, A.P.
    Transfusion **7**, 277-280 (1967)

16. Metabolic Pathways Leading to the Biosynthesis of Blood Group Substances
    Grollman, A.P.
    In: *Hartford Foundation Symposium on Blood Groups*. Kuhns, W.J. (Ed.)
    Better Bellevue Association, NY 35-46 (1967)

17. Mode of Action of Anisomycin
    Grollman, A.P.
    J. Biol. Chem. **242**, 3326-3333 (1967)

18. Structural Basis for the Inhibition of Protein Biosynthesis: Mode of Action of Tubulosine
    Grollman, A.P.
    Science **157**, 84-85 (1967)

19. Cycloheximide Resistance in Yeast: A Property of the 60s Ribosomal Subunit
    Rao, S.S. and Grollman, A.P.
    Biochem. Biophys. Res. Commun. **29**, 696-704 (1967)

20. Effects of Emetine on Protein and Nucleic Acid Biosynthesis in HeLa Cells
    Grollman, A.P.
    J. Biol. Chem. **243**, 4089-4094 (1968)

21. Inhibition of the Attachment of Messenger Ribonucleic Acid to Ribosomes
    Grollman, A.P. and Stewart, M.L.
    Proc. Natl. Acad. Sci. USA **61**, 719-725 (1968)

22. A Proposed Mechanism for the Design of Novel Antiviral Agents
Grollman, A.P.
In: *Antimicrobial Agents and Chemotherapy—1968*, 3640 (1969)

23. Interactions of Small Molecules with Nucleic Acids. I. Mode of Action of Anthramycin.
Horwitz, S.B. and Grollman, A.P.
In: *Antimicrobial Agents and Chemotherapy—1968*, 21-24 (1969)

24. Rational Design of Chemotherapeutic Agents
Grollman, A.P.
In: *Annual Reports in Medicinal Chemistry—1968*, Cain, C.K. (Ed.), Academic Press 218-229 (1969).

25. Emetine: New Uses for an Old Drug
Grollman, A.P.
The Ohio State Medical Journal **66**, 257-259 (1970)

26. A fucosyltransferase Found in Human Milk: The Product of the Lewis Blood Group Gene.
Jarkovsky, Z., Marcus, D.M., and Grollman, A.P.
Biochemistry **9**, 1123-1128 (1970)

27. Inhibition of Protein Biosynthesis: Its Significance in Drug Design
Grollman, A.P.
Molecular Pharmacology Vol. II, Drug Design. Ariens, E.F. (Ed.)
Academic Press 231-249 (1971)

28. Rational Design of Antiviral Agents
Grollman, A.P. and Horwitz, S.B.
Molecular Pharmacology Vol. II, Drug Design. Ariens, E.F. (Ed.)
Academic Press 261-276 (1971)

29. Aurintricarboxylic Acid: Inhibitor of Protein Synthesis
Stewart, M.L., Grollman, A.P., and Huang, M.T.
Proc. Natl. Acad. Sci. USA **68**, 97-101 (1971)

30. Chemosterilant Action of Anthramycin: A Proposed Mechanism
Horwitz, S.B., Chang, S.C., Grollman, A.P., and Borkovec, A.B.
Science **174**, 159-161 (1971)

31. Studies on Camptothecin I. Effects on Nucleic Acid and Protein Synthesis
Horwitz, S.B., Chang, C., and Grollman, A.P.
Molecular Pharmacology **7**, 632-644 (1971)

32. Potential Inhibitors of Protein Biosynthesis
Grollman, A.P., Rosen, S., and Hite, G.
J. Med. Chem. **14**, 885-887 (1971)

33. Effect of Aurintricarboxylic Acid on Ribosomes and the Synthesis of Globin in Rabbit Reticulocytes
Huang, M.T. and Grollman, A.P.
Molecular Pharmacology **8**, 111-127 (1972)

34. Antiviral Action of Camptothecin
Horwitz, S.B., Chang, C., and Grollman, A.P.
Antimicrobial Agents and Chemotherapy **2**, 395-401 (1972)

35. Mode of Action of Tylocrebine: Effects of Protein and Nucleic Acid Synthesis
Huang, M.T. and Grollman, A.P.
Molecular Pharmacology **8**, 538-550 (1972)

36. Binding of ^{13}C-Enriched Methyl-D-Glucopyranisode to Concanavalin A as Studied by Carbon Magnetic Resonance
Brewer, C.F., Sternlicht, H., Marcus, D.M., and Grollman, A.P.
Proc. Natl. Acad. Sci. USA **70**, 1007-1011 (1973)

37. Binding of Orientations of α and β Methyl-D-Gluopyranoside to Concanavail A as Studied by ^{13}-Carbon Magnetic Resonance
Brewer, C.F. Marcus, D.M., Sternlicht, H., and Grollman, A.P.
Ann. NY Acad. Sci. **222**, 978-988 (1973)

38. Interactions of Saccharides with Concanavalin A. II. Mechanism of Binding of Alpha and Beta-Methyl-D-Clucopyranoside to Concanavalin A as Determined by Carbon Magnetic Resonance.
Grollman, A.P., Brewer, C.F., Sternlicht, H., and Marcus, D.M.
Biochemistry **12**, 4448-4457 (1973)

39. Inhibitors of Protein Synthesis in Eukaryotes: Tools in Cell Research
Grollman, A.P. and Huang, M.T.
(Symposium on Mechanisms of Antibiotic Action)
Federation Proceedings **32**, 1673-1678 (1973)

40. Inhibitors of Protein Synthesis: A Mechanism of Amebicide Action of Emetine and Other Structurally-Related Compounds
Entner, N. and Grollman, A.P.
J. Protozool. **20**, 160-163 (1973)

41. Pyrocatechol Violet: An Inhibitor of Initiation of Protein Synthesis
Huang, M.T. and Grollman, A.P.
Biochem. Biophys. Res. Commun. **53**, 1049-1059 (1973)

42. Carbon-13 Magnetic Resonance Studies of Carbohydrate Interactions with Concanavalin A.
Brewer, C.F., Sternlicht, H ., Marcus, D.M., and Grollman, A.P.
Biology and Medicine, May 9-11, 1973 at Argonne, Illinois, sponsored by the United States Atomic Energy Commission

43. Interaction of Saccharides with Concanavalin A. III.Relation between Calcium Ions and the Binding of Saccharides to Concanavalin A.
Brewer, C.F., Sternlicht, H., Marcus, D.M., and Grollman, A.P.
J. Biol. Chem. **259**, 4614-4616 (1974)

44. Gallin (9-(2'-Carboxyphenyl)-3,4,5,6-tetrahydroxyxanthene), a New Inhibitor of *Escherichia coli* Ribonucleic Acid Polymerase
Liao, L.L., Horwitz, S.B. and Grollman, A.P.
Biochemistry **13**, 1331-1337 (1974)

45. Bleomycin, an Inhibitor of Vaccinia Virus Replication
Takeshita, M., Horwitz, S.B., and Grollman, A.P.
Virology **60**, 455-465 (1974)

46. Molecular Pharmacology of Plant Lectins: Studies on Ricin and Concanavalin A
Grollman, A.P., Grunfeld, C., Brewer, C.F., and Marcus, D.M.
Cancer Chemotherapy Reports **58**, 491-501 (1974)

47. Structure Activity Relationships of Adrenergic Compounds on the Adenylate Cyclase of Frog Erythrocytes
Grunfield, C., Grollman, A.P. and Rosen, O.M.
Molecular Pharmacology **10**, 605-614 (1974)

48. Emetine and Related Alkaloids
Grollman, A.P. and Jarkovsky, Z.
In: *Antibiotics: Mode of Action*, Vol. III, 420-435 (1975)

49. Triphenylmethane Dyes as Inhibitors of Reverse Transcriptase, RNA Polymerase, and Protein Synthesis: Structure Activity Relationships
Liao, L.L., Horwitz, S.B., Steward, D., Martin, J., Huang, M.T. and Grollman, A.P.
J. Med. Chem. **18**, 117-120 (1975)

50. Proton Magnetic Resonance Studies of Carbonic Anhdyrase III. Binding of Sulfonamides
Pesando, J.M. and Grollman, A.P.
Biochemistry **14**, 689-693 (1975)

51. Effect of ATP and other Nucleotides on the Bleomycin-Induced Degradation of Vaccinia Virus DNA
Takeshita, M., Grollman, A.P., and Horwitz, S.B.
Virology **69**, 453-463 (1976)

52. Mechanism of Action of the 12,13-Epoxytrichothecene, Anguidine, an Inhibitor of Protein Synthesis
Liao, L.L., Grollman, A.P., and Horwitz, S.B.
Biochemica et Biophysica Acta **454**, 273-284 (1976)

53. Mechanism of the Antiviral Action of Bleomycin
Takeshita, M., Horwitz, S.B., and Grollman, A.P.
Ann. NY Acad. Sci. **284**, 367-374 (1977)

54. Bleomycin-induced Interactions: Fluorescence and Proton Magnetic Resonance Studies
Chen, M., Grollman, A.P., and Horwitz, S.B.
Biochemistry **16**, 3641-3647 (1977)

55. Nucleotide Specificity in DNA Scission by Neocarzinostatin
Hatayma, T., Goldberg, I., Takeshita, M., and Grollman, A.P.
Proc. Natl. Acad. Sci. USA **75**, 5983-5987 (1978)

56. Interactions of Bleomycin with DNA
Takeshita, M., Grollman, A.P., Ohtsubo, E., and Ohtsubo, H.
Proc. Natl. Acad. Sci. USA **75**, 5983-5987 (1978)

57. A Molecular Basis for the Interaction of Bleomycin with DNA
Takeshita, M. and Grollman, A.P.
In: *Bleomycin, Chemical, Biochemical and Biological Aspects*
Hecht, S. (Ed.), Springer Verlag, NY 207-221 (1979)

58. Interactions of Bleomycin with DNA
Grollman, A.P. and Takeshita, M.
In: *Advances in Enzyme Regulation,* Weber, G. (Ed.) **18,** 67-68 (1980)

59. Bleomycin-Induced Strand Scission of DNA: Mechanisms of Deoxyribose Cleavage
Giloni, L., Takeshita, M., Johnson, F., Iden, C., and Grollman, A.P.
J. Biol. Chem. **256**, 8606-8615 (1981)

60. Interaction of Bleomycin with Deoxyribodinucleotides: An NMR Study
Lin, S.Y. and Grollman, A.P.
Biochemistry **20**, 7589-7598 (1981)

61. Strand-Scission of DNA by Neocarzinostatin, Auromomycin, and Bleomycin: Studies on Base Release and Sequence Specificity
Takeshita, M., Kappen, L., Grollman, A.P., and Goldberg, I.
Biochemistry **20**, 7599-7606 (1981)

62. Bleomycin-DNA Complex. A Proposed Model
Lin, S.Y., Takeshita, M., and Grollman, A.P.
Biomolecular Stereodynamics, Sarma, R.H. (Ed.), Adenine Press **2,** 401-408 (1981)

63. Synthesis and Biological Activities of a New Class of Cytotoxic Agents: (N-(3-Oxoprop-1-enyl)-Substituted Pyrimidines and Purines
Johnson, F., Pillai, K.M.R., Grollman, A.P., Tseng, L ., and Takeshita, M.
J. Med. Chem. **27**, 954 (1984)

64. Origin and Cytotoxic Base Properties of Propenals Derived from DNA
Grollman, A.P., Takeshita, M., Pillai, K.M.R., and Johnson, F.
Cancer Res. **45**, 1127-1131 (1985)

65. Cytotoxic Base Propenals from DNA
Johnson, F. and Grollman, A.P.
In: *Cancer Chemotherapy Experimental and Clinical Progress*
Martinus Nijhoff Publishers, Boston (1985)

66. Cytotoxic Base Propenals and the Action of Bleomycin
Grollman, A.P., Johnson, F., Pillai, K.M.R., and Takeshita, M.
Molecular Basis of Cancer Bart B: Macromolecular Recognition, Chemotherapy, and Immunology, Alan R. Liss, Inc., 235-242 (1985).

67. Carcinogen Induced Insertion Mutations in *E. coli*
Takeshita, M., Van der Keyl, H., and Grollman, A.P.
Molecular Basis of Cancer, Part A: Macromolecular Structure, Carcinogenesis, and Oncogenes, Alan R. Liss, Inc., 389-399 (1985).

68. Steptonigrin I. Structure-Activity Relationships Among Simple Bicyclic Analogues. Rate Dependence of DNA Degradation on Quinone Reduction Potential
Shaikh, I.A., Johnson, F., and Grollman, A.P.
J. Med. Chem. **29**, 1329-1340 (1986)

69. Oligodeoxynucleotides Containing Synthetic Abasic Sites: Model Substrates for DNA Polymerases and A.P. Endonucleases
Takeshita, M., Chang, C.-N., Johnson, F., Will, S.G., and Grollman, A.P.
J. Biol. Chem. **262**, 10171-10179 (1987)

70. NMR Studies of Abasic Sites in DNA Duplexes. Deoxyadenosine Stacks into the Helix Opposite the Cyclic Analog of 2-Deoxyribose
Kalnick, M., Chang, C.-N., Grollman, A.P., and Patel, D.J.
Biochemistry **27**, 924-931 (1988)

71. Targeted Mutations Induced by a Single Acetylaminofluorene DNA Adduct in Mammalian Cells and Bacteria
Moriya, M., Takeshita, M., Johnson, F., Peden, K., Will, S., and Grollman, A.P.
Proc. Natl. Acad. Sci. USA **85**, 1586-1589 (1988)

72. Base Propenals and the Toxicity of Bleomycin.
Grollman, A.P.
In: *Organ Directed Toxocities of Anticancer Drugs*. Hacker, M.P., Lazo, J.S., and Tritton, T.R. (Eds.), Martinus Nijhoff Publishers, 79-90 (1988)

73. Experimental System for the Study of Site-Specific Mutagenesis in Mammalian Cells and Bacteria
Moriya, M., Takeshita, M., Peden, K., and Grollman, A.P.
In: *DNA Replication and Mutagenesis*. Moses, R.E. and Summers, W.C. (Eds.), 410-415 (1988).

74. Mechanism of DNA Cleavage and Substrate Recognition by a Bovine Apurinic Endonuclease
Sanderson, J.S., Chang, C.-N., Grollman, A.P., and Henner, W.D.
Biochemistry **28**, 3894-3901 (1989)

75. NMR Studies of Abasic Sites in DNA Duplexes: Deoxyadenosine Stacks into the Helix Opposite Acyclic Lesions
Kalnick, M.W., Chang, C.-N., Johnson, F., Grollman, A.P., and Patel, D.J.
Biochemistry **28**, 3373-3383 (1989)

76. Influence of Abasic and Anucleosidic Sites on the Stability, Conformation, and Melting Behavior of a DNA Duplex: Correlations of Thermodynamic and Structural Data
Vesnaver, G., Chang, C.-N., Eisenberg, M.E., Grollman, A.P., and Breslauer, K.J.
Proc. Natl. Acad. Sci. USA **86**, 3614-3618 (1989)

77. NMR Studies of Exocyclic 1,N^2-Propanodeoxyguanosine Adducts (X) Opposite Purines in DNA Duplexes: Protonated X(*syn*)•A(*anti*) Pairing (Acidic pH) and X(*syn*)•G(*anti*) Pairing (Neutral pH) at the Lesion Site
Kouchakdjian, M., Marinelli, E., Gao, X., Johnson, F., Grollman, A.P., and Patel, D.J.
Biochemistry **28**, 5647-5657 (1989)

78. Site Specific Mutagenesis
Grollman, A.P.
In: *Fifth International Conference on Environmental Mutagens, Mutation and the Environment, Part A,*
Mendelsohn, M.L. (Ed.), Alan R. Liss, New York, 61-70 (1990)

79. NMR Studies of an Exocyclic 1,N^2-Propanodeoxyguanosine Adduct (X) Located Opposite Deoxyadenosine (A) in DNA Duplexes at Basic pH: Simultaneous Partial Intercalation of X and A Between Stacked Bases
Kouchakdjian, M., Eisenberg, M., Live, D., Marinelli, E., Grollman, A.P., and Patel, D.J.
Biochemistry **29**, 4456-4465 (1990).

80. Insertion of Specific Bases During DNA Synthesis past the Oxidation-damaged Base 8-oxodG
Shibutani, S., Takeshita, M., and Grollman, A.P.
Nature **349**, 431-434 (1991).

81. NMR Structural studies of the Ionizing Radiation Adduct 8-Oxodeoxyguanosine (8-oxodG) Opposite Deoxyadenosine in a DNA Duplex. 8-OxodG(*syn*):dA(*anti*) Alignment at Lesion Site
Kouchakdjian, M., Bodepudi, V., Shibutani, S., Eisenberg, M., Johnson, F., Grollman, A.P., and Patel, D.J.
Biochemistry **30**, 1403-1412 (1991).

82. Structural Features of an Exocyclic Adduct Positioned Opposite an Abasic Site in a DNA Duplex
Kouchakdjian, M., Eisenberg, M., Johnson, F., Grollman, A.P., and Patel, D.J.
Biochemistry **30**, 3262-3270 (1991).

83. Isolation and Characterization of Oligodeoxynucleotides Containing dG-N^2-AAF and Oxidation Products of dG-C8-AF
Shibutani, S., Gentles, R., Johnson, F., and Grollman, A.P.
Carcinogenesis **12**, 813-818 (1991).

84. Site-specific Mutagenesis using a Gapped Duplex Vector: A Study of *In Vivo* Translesion Synthesis past 8-Oxodeoxyguanine.
Moriya, M., Ou, C., Bodepudi, V., Johnson, F., Takeshita, M., and Grollman, A.P.
Mutation Res. **254**, 281-288 (1991).

85. 8-Oxoguanine (8-Hydroxyguanine) DNA Glycosylase and its Substrate Specificity
Tchou, J., Kasai, H., Shibutani, S., Chung, M.H., Laval, J., Grollman, A.P., and Nishimura, S.
Proc. Natl. Acad. Sci. USA **88**, 4690-4694 (1991).

86. Mitomycin and Bleomycin
Grollman, A.P.
In: *Japan J. Cancer Res.* **82**, Elsevier Science Publishers (1991).

87. Inhibition of Cellular Thymidylate Synthesis by Cytotoxic Propenal Derivatives of Pyrimidine Bases and Deoxynucleosides
Kalman, T.I., Marinelli, E.R., Xu, B., Benugopala Reddy, A.R., Johnson, F., and Grollman, A.P.
Biochemical Pharmacology **42**, 432-437 (1991).

88. Structural Basis for the Mutagenic Specificity of 8-Oxoguanine-DNA.
Grollman, A.P.
In: *Proceedings of the Seventh Conversation in Biomolecular Stereodynamics*. Sarma, R. (Ed.), Adenine Press (1992).

89. Evidence that *MutY* and *MutM* Combine to Prevent Mutations by an Oxidatively Damaged Form of Guanine in DNA
Michaels, M.L., Cruz, C., Grollman, A.P., and Miller, J.H.
Proc. Natl. Acad. Sci. USA **89**, 7022-7025 (1992).

90. A Repair System for 8-Oxo-7,8-dihydrodeoxyguanine (8-Hydroxyguanine)
Michaels, M.L., Tchou, J., Grollman, A.P., and Miller, J.H.
Biochemistry **31**, 10964-10968 (1992).

91. Influence of an Exocyclic Guanine Adduct on the Thermal Stability, Conformation, and Melting Thermodynamics of a DNA Duplex.
Plum, G.E., Grollman, A.P., Johnson, F., and Breslauer, K.J.
Biochemistry **31**, 12096-12102 (1992).

92. Translesional Synthesis on DNA Templates Containing 8-Oxo-7,8-dihydrodeoxyadenosine.
Shibutani, S., Bodepudi, V., Johnson, F., and Grollman, A.P.
Biochemistry **32**, 4615-4621 (1993).

93. Repair of DNA Containing the Oxidatively-Damaged Base, 8-Oxoguanine
Tchou, J. and Grollman, A.P.
Mutation Res. **299**, 277-287 (1993).

94. Translesional Synthesis on DNA Template Containing a Single Stereoisomer of dG-(+)- or dG0(-)-anti-BPDE (7,8-Dihydroxy-anti-9,10-epoxy-7,8,9,10-tetrahydrobenzo(a)pyrene).
Shibutani, S., Margulis, L.A., Geacintov, N.E., and Grollman, A.P.
Biochemistry **32**, 7531-7541 (1993).

95. Mutagenesis by 8-Oxoguanine: An Enemy Within
Grollman, A.P. and Moriya, M.
Trends in Genetics **9**, 246-249 (1993).

96. On the Mechanism of Frameshift (Deletion) Mutagenesis *In Vitro*
Shibutani, S. and Grollman, A.P.
J. Biol. Chem. **268**, 11703-11710 (1993).

97. Mutations of the *MutY* Gene of *Escherichia coli* Enhance the Frequency of Targeted G:C→T:A Transversions Induced by a Single 8-Oxoguanine Residue in Single-Stranded DNA.
Moriya, M. and Grollman, A.P.
Molecular Gen. Genet. **239**, 72-76 (1993).

98. Mutagenic Specificity of Chemical Carcinogens as Determined by Studies with Single DNA Adducts
Grollman, A.P. and Shibutani, S.
In: *DNA Adducts: Identification and Biological Significance*.
Hemminki, K., Dipple, A., Shuker, D., Kadlubar, F.F., Segerback, D. and Bartsch, H. (Eds.), IARC Scientific Publications No. 125, Lyon, France, (1993).

99. Function of the Zinc Finger Domain in *Escherichia coli* Fpg Protein
Tchou, J., Michaels, M.L., Miller, J.H., and Grollman, A.P.
J. Biol. Chem. **268**, 26738-26744 (1993).

100. Nucleotide Misincorporation on DNA Templates Containing N-(deoxyguanosin-N^2-yl)-2-acetylaminofluorene (dG-N^2-AAF)
Shibutani, S. and Grollman, A.P.
Chem. Res. Toxicol. **6**, 819-824 (1993).

101. Formation, Inhibition of Formation, and Repair of Oxidative 8-Hydroxyguanine DNA Damage (Review)
Kasai, H., Chung, M.H., Yamamoto, F., Ohtsuka, E., Laval, J., Grollman, A.P., and Nishimura, S.
Basic Life Sciences **61**, 257-262 (1993).

102. Substrate Specificity of Fpg Protein: Recognition and Cleavage of Oxidatively Damaged DNA
Tchou, J., Bodepudi, V., Shibutani, S., Antoshechkin, I., Miller, J., Grollman, A.P., and Johnson, F.
J. Biol. Chem. **269**, 15318-15324 (1994)

103. Recognition and Repair of 8-Oxoguanine and Formamidopyrimidine Lesions in DNA
Grollman, A.P., Johnson, F., Tchou, J., and Eisenberg, M.
In: *Annals of New York Academy of Sciences* **726**. Wallace, S.S., Van Houten, B., and Kow, Y.W. (Eds.), 208-214 (1994).

104. Miscoding During DNA Syntheisis on Damaged DNA Templates Catalyzed by Extracts Prepared from Mammalian Cells
Shibutani, S. and Grollman, A.P.
Cancer Letters **83**, 315-322 (1994).

105. Mutagenic Potency of Exocyclic DNA Adducts: Marked Differences Between *Escherichia coli* and Simian Kidney Cells
Moriya, M., Zhang, W., Johnson, F., and Grollman, A.P.
Proc. Natl. Acad. Sci. USA **91**, 11899-11903 (1994).

106. Miscoding by the Exocyclic DNA Adducts: 3,N^4-etheno-2'-deoxycytidine, 3,N^4-ethano-2'-deoxycytidine, and 3-(2-hydroxyethyl)-2'-deoxyuridine
Zhang, W., Johnson, F., Grollman, A.P., and Shibutani, S.
Chem. Res. Toxicol. **8**, 157-163 (1995).

107. 8-Oxoguanine in DNA: Its Mutagenic Properties and Repair
Grollman, A.P.
Environ. Mut. Res. Commun. **16**, 239-243 (1995).

108. Incision Activity of Human Apurinic Endonuclease (a.p.e) at Abasic Site Analogs in DNA
Wilson, D.M. III, Takeshita, M., Grollman, A.P., and Demple, B.
J. Biol. Chem. **270**, 16002-16007 (1995).

109. The Catalytic Mechanism of Fpg Protein: Evidence for a Schiff Base Intermediate and Amino-Terminus Localization of the Catalytic Site
Tchou, J. and Grollman, A.P.
J. Biol. Chem. **270**, 11671-11677 (1995).

110. Miscoding and Mutagenic Properties of 8-Oxoguanine and Abasic Sites: Ubiquitious Lesions in Damaged DNA
Grollman, A.P. and Takeshita, M.
In: *Radiation Damage to DNA: Structure/Function Relationships of Early Times*. Fuciarelli, A.F. and Zimbrick, J.D. (Eds.), Batelle Press, Columbus, Ohio, 293-304 (1995).

111. Influence of the Oxidatively Damaged Adduct 8-Oxodeoxyguanosine on the Conformation, Energetics, and Thermodynamic Stability of a DNA Duplex.
Plum, G.E., Grollman, A.P., Johnson, F., and Breslauer, K.J.
Biochemistry **34**, 16148-16160 (1995).

112. Mutagenicity of a Unique 8-Oxoguanine in a Human *Ha-ras* Sequence in Mammalian Cells
LePage, F., Margot, A., Grollman, A.P., Sarasin, A., and Gentil, A.
Carcinogenesis **16**, 2779-2784 (1995).

113. Synthesis of 8-Oxo-7,8-Dihydro-6-*O*-Methyl-2'-deoxyguanosine and its Use as a Probe to Study DNA-Base Excision by MutY Enzyme
Varaprasad, C.V., Bulychev, N., Grollman, A.P., and Johnson, F.
Tetrahedron Letters **37**, 9-12 (1996).

114. Fidelity of Translesional Synthesis Past Benzo[a]pyrene Diol Epoxide-2-Deoxyguanosine DNA Adducts: Marked Effects of Host Cell Sequence Context and Chirality
Moriya, M., Spiegel, S., Fernandes, A., Amin, S., Liu, T.-M., Geacintov, N.E., and Grollman, A.P.
Biochemistry **35**, 16646-16641 (1996).

115. Analysis and Prediction of Protein Binding on DNA: Pattern Recognition of Hydrogen Bonds
Campbell, G., Deng, Y., Glimm, J., Yu, Q., Eisenberg, M., and Grollman, A.P.
J. Computational Chemistry **17**, 1712-1725 (1996).

116. Substrate Specificity of *E. coli* MutY Protein
Bulychev, N.V., Varaprasad, C.V., Dorman, G., Miller, J.H., Eisenberg, M., Grollman, A.P., and Johnson, F.
Biochemistry **35**, 13147-13156 (1996).

117. The Impact of a Bistrand Abasic Lesion on DNA Duplex Properties
Gelfand, C.A., Plum, G.E., Grollman, A.P., Johnson, F., and Breslauer, K.J.
Biopolymers **38**, 439-445 (1996).

118. Solution Structure of an Oligodeoxynucleotide Duplex Containing the Exocyclic Lesion 3,N^4-ethenodeoxycytosine Opposite Deoxyadenine, Determined by NMR Spectroscopy and Restrained Molecular Dynamics
Korobka, A., Cullinan, D., Cosman, M., Grollman, Patel, D.J., Eisenberg, M., and de los Santos, C.
Biochemistry **35**, 13310-13318 (1996).

119. NMR Solution Structure of an Oligodeoxynucleotide Duplex Containing the Exocyclic Lesion 3,N^4-ethenodeoxycytosine Opposite Thymine: Comparison with the Duplex Containing Deoxyadenosine Opposite the Adduct
Cullinan, D., Korobka, A., Grollman, A.P., Patel, D.J., Eisenberg, M., and de los Santos, C.
Biochemistry **35**, 13319-13327 (1996).

120. Deletions and Insertions of *p53* Tumor Suppressor Gene in Human Cancers: Confirmation of the DNA Polymerase Slippage/Misalignment Model
Greenblatt, M.S., Grollman, A.P., and Harris, C.C.
Cancer Res. **56**, 2130-2136 (1996).

121. 8-Oxoguanine and Bistrand Abasic Sites in DNA: Mutagenic Potential and Repair
Grollman, A.P. and Takeshita, M.
In: *Radiation Research 1895-1995*. Congress Proceedings Vol. 2
Hagen, U., Hrder, D., Jung, H., and Streffer, C. (Eds)., 316-319 (1996)

122. Miscoding Properties of 3,N^4-Etheno-2'-deoxycytidine in Reactions Catalyzed by Mammalian DNA Polymerases
Shibutani, S., Suzuki, N., Matsumoto, Y., and Grollman, A.P.
Biochemistry **35**, 14992-14998 (1996).

123. Structural Studies of the Ionizing Radiation Adduct 7,8-Dihydro-8-oxoadenine (A^{oxo}) Positioned Opposite Thymine in a DNA Duplex
Chen, H., Johnson, F., Grollman, A.P., and Patel, D.J.
Magnetic Resonance in Chemistry **34**, S23-S32 (1996).

124. Kinetics of Excision of Purine Lesions from DNA by Fpg Protein
Karakaya, A., Jaruga, P., Bohr, V.A., Grollman, A.P., and Dizdaroglu, M.
Nucleic Acids Research **25**, 474-479 (1997).

125. Solution Structure of a DNA Duplex Containing the Exocyclic Lesion 3,N^4-Etheno-2'-deoxycytidine Opposite 2'-Deoxyguanosine
Cullinan, D., Johnson, F., Grollman, A.P., Eisenberg, M., and de los Santos, C.
Biochemistry **36**, 11933-11943 (1997).

126. NH_2-Terminal Proline Acts as a Nucleophile in the Glycosylase/Ap-Lyase Reaction Catalyzed by *Escherichia coli* Formamidopyrimidine-DNA Glycosylase (Fpg) Protein
Zharkov, D., Rieger, R.A., Iden, C.R., and Grollman, A.P.
J. Biol. Chem. **272**, 5335-5341 (1997).

127. Translesional Synthesis on DNA Templates Containing a Single Abasic Site: A Mechanistic Study of the A Rule
Shibutani, S., Takeshita, M., and Grollman, A.P.
J. Biol. Chem. **272**, 13916-13922 (1997).

128. Molecular Mechanisms of Mutagenesis by Aromatic Amines and Amides
Shibutani, S. and Grollman, A.P.
Mutation Res. **376**, 71-78 (1997).

129. Cloning and Characterization of a Mammalian 8-Oxoguanine DNA Glycosylase
Rosenquist, T., Zharkov, D.O., and Grollman, A.P.
Proc. Natl. Acad. Sci. USA **94**, 7429-7434 (1997).

130. Kinetics of DNA Polymerase I (Klenow Fragment exo^-) Activity on Damaged DNA Templates: Effect of Proximal and Distal Template Damage on DNA Synthesis
Miller, H. and Grollman, A.P.
Biochemistry **36**, 15336-15342 (1997).

131. Extrachromosomal Unequal Homologous Recombination and Gene Conversion in Simian Kidney Cells: Effects of UV Damage
Gening, L., Takeshita, M., Levine, R.L., Peden, K.W., and Grollman, A.P.
Mutation Res. **407**, 11-24 (1998).

132. Mutagenic Potential of Stereoisomeric Bay Region (+)- and (B)-*cis-anti*-Benzo[a]pyrene Diol Epoxide-N^2-2'-Deoxyguanosine Adducts in *Escherichia coli* and Simian Kidney Cells
Fernandes, A., Liu, T., Amin, S., Geacintov, N.E., Grollman, A.P., and Moriya, M.
Biochemistry **37**, 10164-10172 (1998).

133. Mutagenic Specificity of Acetylaminofluorene-derived DNA Adducts in Mammalian Cells
Shibutani, S., Suzuki, N., and Grollman, A.P.
Biochemistry **37**, 12034-12041 (1998).

134. MutY DNA Glycosylase: Base Release and Intermediate Complex Formation
Zharkov, D.O. and Grollman, A.P.
Biochemistry **37**, 12384-12394 (1998).

135. Solution Structure of Duplex DNA Containing an Extrahelical Abasic Site Analog Determined by NMR Spectroscopy and Molecular Dynamics
Lin, Z., Hung, K.-N., Grollman, A.P., and de los Santos, C.
Nucleic Acids Research **26**, 2385-2391 (1998).

136. The Impact of an Exocyclic Cytosine Adduct on DNA Duplex Properties: Significant Thermodynamic Consequences Despite Modest Lesion-Induced Structural Alterations
Gelfand, C.A., Plum, G.E., Grollman, A.P., Johnson, F., and Breslauer, K.J.
Biochemistry **37**, 12507-12512 (1998).

137. Thermodynamic Consequences of an Abasic Lesion in Duplex DNA are Strongly Dependent on Base Sequence
Gelfand, C.A., Plum, G.E., Grollman, A.P., Johnson, F., and Breslauer, K.J.
Biochemistry **37**, 7321-7327 (1998).

138. Site-specific Mutagenesis of the *N*-(deoxyguanosin-8-yl)-2-amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine DNA Adduct in Mammalian Cells
Shibutani, S., Fernandes, A., Suzuki, N., Zhou, L., Johnson, F., and Grollman, A.P.
Z. Lebensm Unters Forsch A **207**, 459-463 (1998).

139. Endogenous DNA Damage, Mutagenesis, and Aging
Grollman, A.P., Moriya, M., Shibutani, S., and Takeshita, M.
In: *Molecular Biology of Aging*, Alfred Benzon Symposium 44. Bohr, V.A., Clark, B.F.C., Stevnsner, T. (Eds.), Munksgaard, Copenhagen, 191-201 (1999).

140. Mutagenic Properties of the 8-Amino-2'-deoxyguanosine DNA Adduct in Mammalian Cells
Tan, X., Suzuki, N., Johnson, F., Grollman, A.P., and Shibutani, S.
Nucleic Acids Research **27**, 2310-2314 (1999).

141. Prediction of Protein Binding to DNA in the Presence of Water-Mediated Hydrogen Bonds
Deng, Y., Glimm, J., Wang, Y., Korobka, A., Eisenberg, M., and Grollman, A.P.
J. Mol. Model. **5**, 125-133 (1999).

142. Tamoxifen-DNA Adducts Detected in Endometrium Obtained from Patients Treated with Tamoxifen
Shibutani, S., Suzuki, N., Terashima, I., Sugarman, S.M., Grollman, A.P., and Pearl, M.L.
Chem. Res. Toxicol. **12**, 646-653 (1999).

143. Recognition and Excision of Bases from Oxidatively Damaged DNA by Fpg, Ogg1, and MutY Proteins
Grollman, A.P. and Zharkov, D.O.
In: *Advances in DNA Damage and Repair. Oxygen Radical Effects, Cellular Protection, and Biological Consequences*. Dizdaroglu, M. and Karakaya, A.E. (Eds.), Plenum Publishers, NY, 135-148 (1999).

144. 3,N^4-Ethano-2'-deoxycytidine: Chemistry of Incorporation into Oligomeric DNA and Reassessment of Miscoding Potential
Bonala, R.R., Rieger, R.A., Shibutani, S., Grollman, A.P., Iden, C.R., and Johnson, F.
Nucleic Acids Res. **27**, 4725-4733 (1999).

145. Mutagenesis of the *N*-(deoxyguanosin-8-yl)-2-amino-1-methyl-6-phenylimidazo[4,5-*b*]pyridine DNA Adduct in Mammalian Cells
Shibutani, S., Fernandes, A., Suzuki, N., Zhou, L., Johnson, F., and Grollman, A.P.
J. Biol. Chem. **274**, 27433-27438 (1999).

146. Comparison of the Mutagenic Properties of 8-Oxo-7,8-dihydro-2'-deoxyadenosine and 8-Oxo-7,8-dihydro-2'-deoxyguanosine DNA Lesions in Mammalian Cells.
Tan, X., Suzuki, N., Grollman, A.P., and Shibutani, S.
Carcinogenesis **20**, 2287-2292 (1999).

147. Cellular Response to Exocyclic DNA Adducts
Moriya, M., Pandya, G.A., Johnson, F., and Grollman, A.P.
In: *Exocyclic DNA Adducts in Mutagenesis and Carcinogenesis*. Singer, B. & Bartsch, H. (Eds.), IARC Scientific Publication (Lyon) **150**, 263-270 (1999).

148. 8-OxoGTP Incorporation by DNA Polymerase β is Modified by Active-Site Residue Asn279
Miller, H., Prasad, R., Wilson, S.H., Johnson, F., and Grollman, A.P.
Biochemistry **39**, 1029-1033 (2000).

149. Immunolocalization of 8-Oxoguanine in Nutrient-Deprived Mammalian Tissue Culture Cells
Conlon, K.A., Grollman, A.P., and Berrios, M.
J. Histotechnology **23**, 37-44 (2000).

150. Characterization of a Cross-Linked DNA-Endonuclease VIII Repair Complex by Electrospray Ionization Mass Spectrometry
Rieger, R.A., McTigue, M.M., Kycia, J.H., Gerchman, S.E., Grollman, A.P., and Iden, C.R.
J. Am. Soc. Mass Spectrometry **11**, 505-515 (2000).

151. Identification of Tamoxifen-DNA Adducts in the Endometrium of Women Treated with Tamoxifen
Shibutani, S., Ravindernath, A., Suzuki, N., Terashima, I., Sugarman, S.M., Grollman, A.P., and Pearl, M.L.
Carcinogenesis **21**, 1461-1467 (2000).

152. Substrate Specificity and Reaction Mechanism of Murine 8-Oxoguanine-DNA Glycosylase
Zharkov, D.O., Rosenquist, T.A., Gerchman, S.E., and Grollman, A.P.
J. Biol. Chem. **275**, 28607-28617 (2000).

153. Mutagenesis Induced by a Single 1,N6-Ethanodeoxyadenosine Adduct in Human Cancer Cells
Levine, R.L., Yang, I.Y., Hossain, M., Pandya, G.A., Grollman, A.P., and Moriya, M.
Cancer Res. **60**, 4098-4104 (2000).

154. A Role for Lysine 142 in the Excision of Adenine from A:G Mispairs by MutY DNA Glycosylase of *Escherichia coli*
Zharkov, D.O., Gilboa, R., Yagil, I., Kycia, J.H., Gerchman, S.E., Shoham, G., and Grollman, A.P.
Biochemistry **39**, 14768-14778 (2000).

155. *Escherichia coli* Response to a Single DNA Adduct
Pandya, G.A., Yang, I-Y., Grollman, A.P., and Moriya, M.
J. Bacteriology **182**, 6598-6604 (2000).

156. Responses to the Major Acrolein-Derived Deoxyguanosine Adduct in *Escherichia coli.*
Yang, I-Y, Hossain, M., Miller, H., Khullar, S., Johnson, F., Grollman, A.P., and Moriya, M.
J. Biol. Chem. **276**, 9071-9076 (2001).

157. Influence of Flanking Sequence Context on the Mutagenicity of Acetylaminofluorene-Derived DNA Adducts in Mammalian Cells
Shibutani, S., Suzuki, N., Tan, X., Johnson, F., and Grollman, A.P.
Biochemistry **40**, 3717-3722 (2001).

158. Translesion DNA Synthesis Catalyzed by Human Pol η and Pol κ across 1,N^6-Ethenodeoxyadenosine.
Levine, R.L., Miller, H., Grollman, A.P., Ohashi, E., Ohmori, H., Masutani, C., Hanoaka, F., and Moriya, M.
J. Biol. Chem. **276**, 18717-18721 (2001)

159. Translesional synthesis past acetylaminofluorene-derived DNA adducts catalyzed by Human DNA polymerase κ and Escherichia coli DNA polymerase IV.
Suzuki, N., Ohashi, E., Yahashi, K., Ohmori, H., Grollman, A.P. and Shibutani, S.
Biochemistry **40**, 15176-15183 (2001).

160. Alternative medicine: the importance of evidence in medicine and in medical education. Is there wheat among the chaff?
Grollman A.P.
Acad Med **76,** 221-3 (2001)

161. Structural analysis of Escherichia coli endonuclease VIII: its covalent reaction intermediate.
Zharkov, D.O., Golan, G., Gilboa, R., Fernandes, A.S., Gerchman, S.E., Kycia, J.H., Rieger, R.A., Grollman, A.P., and Shoham, G.
EMBO J **21**:789-800 (2002).

162. Structure of Formamidopyrimidine-DNA Glycosylase Covalently Complexed to DNA.
Gilboa, R., Zharkov, D.O., Golan, G., Fernandes, A.S., Gerchman, S.E., Matz, E., Kycia, J.H., Grollman, A.P., and Shoham, G.
J Biol Chem **277**:19811-19816 (2002).

163. Combining structural and bioinformatics methods for the analysis of functionally important residues in DNA glycosylases.
Zharkov, D.O., and Grollman, A.P.
Free Rad Biol Med **32:**1254-1263 (2002).

164. Tamoxifen-DNA adducts: biomarkers for drug-induced endometrial cancer.
Shibutani, S., Suzuki, N., and Grollman, A.P.
In: *Biomarkers of Environmentally Associated Disease*. Technologies, Concepts, and Perspectives.
Wilson SH, Suk, WA (Eds.), CRC Press LLC, 127-137 (2002).

165. Translesion Synthesis by Human DNA Polymerase κ on a DNA Template Containing a Single Stereoisomer of dG-(+)- or dG-(-)-anti-N2-BPDE (7,8-Dihydroxy-anti-9, 10-epoxy-7,8,9,10-tetrahdrobenzo[a]pyrene).
Suzuki, N., Ohashi, E., Kolbanovskiy, A., Geacintov, N.E., Grollman, A.P., Ohmori, H., and Shibutani, S.
Biochemistry **41**:6100-6106 (2002).

166. Mutagenic Events in Escheriachia coli and Mammalian Cells Generated in Response to Acetylaminofluorene-Derived DNA Adducts Positioned in the Nar 1 Restriction Enzyme Site.
Tan, X., Suzuki, N., Grollman, A.P. and Shibutani, S.
Biochemistry **41**:14255-14262 (2002).

167. Botanical Medicines – The Need for New Regulations.
Marcus, D.M. and Grollman, A.P.
New England Journal of Medicine **347**(25):2073-2076 (2002)

168. Genotoxic Mechanism for the Major Acrolein-derived Deoxyguanosine Adduct in Human Cells.
Yang, I-Y., Johnson, F., Grollman, A.P. and Moriya, M.
Chemical Research in Toxicology **15**(2):160-164 (2002)

169. Structure of DNA polymerase β with the mutagenic DNA lesion 8-oxodeoxyguanine reveals structural insights into its coding potential.
Krahn, J.M., Beard, W.A., Miller, H., Grollman, A.P. and Wilson, S.H.
Structure **11**:121-127 (2003).

170. The novel DNA glycosylase, NEIL1, protects mammalian cells from radiation-mediated cell death.
Rosenquist, T.A., Zaika, E., Fernandes, A.S., Zharkov, D.O., Miller, H. and Grollman, A.P.
DNA Repair **2**:581-591 (2003).

171. DNA Repair Investigations Using siRNA.
Miller, H. and Grollman, A.P.
DNA Repair **2**:759-763 (2003).

172. Energetics of Lesion Recognition by DNA Repair Protein: Thermodynamic Characterization of Formamidopyrimidine-glycosylase (Fpg) Interactions with Damaged DNA Duplexes.
Minetti, C.A.S.A., Remeta, D.P., Zharkov, D.O., Plum, G.E., Johnson, F., Grollman, A.P. and Breslauer, K.J.
J Mol Biol **328**, 1047-1060 (2003).

173. Structural characterization of the Fpg family of DNA glycosylases.
Zharkov, D., Shoham, G. and Grollman, A.P.
DNA Repair **2**, 839 - 862 (2003).

174. Crystallographic Characterization of an Exocyclic DNA Adduct: 3, N4-etheno-2'-deoxyctydine in the Dodecamer 5'-CGCGAATTεCGCG-3'
Freisinger, E., Fernandes, A., Grollman, A.P., and Kisker, C.
J. Mol. Biol. **329**:685-697 (2003).

175. Identification of tamoxifen-DNA adducts in monkeys treated with tamoxifen.
Shibutani, S., Suzuki, N., Y. R. Santosh Laxmi, Schild, L. J., Divi, R. L., Grollman, A. P., and Poirier, M. C.
Cancer Res. **63**:4402-4406 (2003)

176. The Thermodynamics of Template-Directed DNA Synthesis: Base Insertion and Extension Enthalpies.
Minetti, C.A.S.A., Remeta, D.P., Miller, H., Gelfand, C.A., Plum, G.E., Grollman, A.P., and Breslauer, K.J.
Proc. Natl. Acad. Sci USA **100**:14719-14724 (2003)

177. Ephedra-free is not danger-free.
Marcus, D.M., Grollman, A.P.
Science **301**(5640):1669-71 (2003)

178. Stereoselective excision of thymine glycol from oxidatively damaged DNA.
Miller, H., Fernandes, A., Zaika, E., McTigue, M., Torres, C., Wente, M., Iden, C., Grollman, A.P.
Nucleic Acids Research **32**(1):338-345 (2004)

179. Crystallization and preliminary crystallographic analysis of endonuclease VIII in its uncomplexed form
Golan, G., Zharkov, D.O., Fernandes, A.S., Zaika, E., Kycia, J.H., Wawrzak, Z., Grollman, A.P., Shoham, G.
Acta Crystallographics **60**:1476-1480 (2004)

180. Lesion (in)tolerance reveals insights into DNA replication fidelity
Freisinger, E., Grollman, A.P., Miller, H., Kisker, C.
The EMBO Journal **23**:1494-505 (2004)

181. Substrate Discrimination by Formamidopyrimidine-DNA Glycosylase - A Mutational Analysis
Zaika, E. I., Perlow, R.A., Matz, E., Broyde, S., Gilboa, R., Grollman, A.P., Zharkov, D.O.
Journal of Biological Chemistry **279**:4849–4861 (2004)

182. “Knock down” of DNA polymerase β by RNA interference: recapitulation of null phenotype
Polosina, Y.Y., Rosenquist, T.A., Grollman, A.P., Miller, H.
DNA Repair **3**:1469-1474 (2004)

183. DNA Oxidation
Grollman, A.P. and Zharkov, D.O.
Encyclopedia of Biological Chemistry, **1**:694-8 (2004)

184. Mutagenic properties of 3-(deoxyguanosin-N2-yl)-2-acetylaminofluorene, a persistent acetylaminofluorene-derived DNA adduct in mammalian cells.
Yasui, M., Dong, H., Bonala, R.R., Suzuki, N., Ohmori, H., Hanaoka, F., Johnson, F., Grollman, A.P., Shibutani, S.
Biochemistry **43**:15005-13. (2004)

185. Mutagenic potential of benzo[a]pyrene-derived DNA adducts positioned in codon 273 of the human P53 gene.
Dong, H., Bonala, R.R., Suzuki, N., Johnson, F., Grollman, A.P., Shibutani, S.
Biochemistry **43**:15922-8. (2004)

186. Mechanism of frameshift (deletion) generated by acetylaminofluorene-derived DNA adducts in vitro.
Shibutani, S., Suzuki, N., Grollman, A.P.
Biochemistry **43**:15929-35. (2004)

187. Substrate discrimination by formamidopyrimidine-DNA glycosylase: distinguishing interactions within the active site.
Perlow-Poehnelt, R.A., Zharkov, D.O., Grollman, A.P., Broyde, S.
Biochemistry **43**:16092-105 (2004)

188. Academic perspectives on dietary supplements use: The need for new guidelines.
Grollman, A.P.
Thromb Res **117**:185-92 (2005)

189. Endemic nephropathy: the case for chronic poisoning by aristolochia.
Hranjec, T., Kovac, A., Kos, J., Mao, W., Chen, J.J., Grollman, A.P., Jelakovic', B.
Croat Med J **46**:116-25 (2005)

190. Mutagenic specificity of 2-acetylaminonaphthalene-derived DNA adduct in mammalian cells.
Tan, X., Bonala, R.R., Suzuki, N., Johnson, F., Grollman, A.P., Shibutani, S.
Chem Biol Interact **152**:131-8 (2005)

191. The DNA trackwalkers: principles of lesion search and recognition by DNA glycosylases
Zharkov, D.O., Grollman, A.P.
Mutation Research **33**:5006-16 (2005)

192. Dynamic behavior of DNA base pairs containing 8-oxoguanine.
Cheng, X., Kelso, C., Hornak, V., de los Santos, C., Grollman, A.P., Simmerling, C.
J Am Chem Soc **127**:13906-18 (2005).

193. Structure of the uncomplexed DNA repair enzyme endonuclease VIII indicates significant interdomain flexibility.
Golan, G., Zharkov, D.O., Feinberg, H., Fernandes, A.S., Zaika, EI, Kycia, J.H., Grollman, A.P., Shoham, G.
Nucleic Acids Res **33**:5006-16 (2005)

194. Proteomic approach to identification of proteins reactive for abasic sites in DNA.
Rieger, R.A., Zaika, EI, Xie, W., Johnson, F., Grollman, A.P., Iden, C.R., Zharkov, D.O.
Molecular and Cellular Proteomics **5**:858-67 (2006)

195. Structure of T4 Pyrimidine Dimer Glycosylase in a Reduced Imine Covalent Complex with Abasic Site-containing DNA
Golan, G., Zharkov, D.O., Shoham, G., Grollman, A.P., Fernandes, A., Dodson, M.L., McCullough, A.K., Lloyd, R.S.
J Mol Biol **362**(2):241-58 (2006)

196. Catalytic mechanism of Escherichia coli endonuclease VIII: Roles of the intercalation loop and the zinc finger.
Kropachev, K.Y., Zharkov, D.O., Grollman, A.P.
Biochemistry **45**:12039-49 (2006)

197. RNA aptamers selected against DNA polymerase β inhibit the polymerase activities of DNA polymerase β and DNA polymerase κ
Gening, L.V., Klincheva, S.A., Reshetnjak, A., Grollman, A.P. and Miller, H.
Nucleic Acids Res **34**(9):2579-86 (2006)

198. Computational analysis of the binding mode of 8-oxoguanine to formamidopyrimidine-DNA glycosylase.
Song, K., Hornak, V., de los Santos, C., Grollman, A.P., Simmerling, C.
Biochemistry **45** (36):10886-94 (2006)

199. Quantitative determination of aristolochic acid-derived DNA adducts in rats using ^{32}P-postlabeling/PAGE analysis.
Dong, H., Suzuki, N., Torres, M.C., Bonala, R.R., Johnson, F., Grollman, A.P., Shibutani, S.
Drug Metab Dispos **34** (7):1122-7 (2006)

200. Science and government. Review for NCCAM is overdue.
Marcus, D.M., Grollman, A.P.
Science **313**(5785):301-2 (2006)

201. Transplantation for Chinese herb nephropathy.
Morrissey, P.E., Gautam, A., Yang, A., Grollman, A.P., Esparza, A., Gohh, R.Y., Monaco, A.P.
Clin Transpl. **560** (2006)

202. TGF-β, HEY1 and chromatin structure regulation in epithelial-mesenchymal transition.
Blumenberg, M., Gao, S., Dickman, K.G., Grollman, A.P., Bottinger, E.P., Zavadil, J.
Cells Tissues Organs **185**(1-3):162-74 (2007)

203. Aristolochic acid and the etiology of (Balkan) endemic nephropathy.
Grollman, A.P., Shibutani, S., Moriya, M., Miller, F., Wu, L., Moll, U., Suzuki, N., Fernandes, A., Rosenquist, T., Medverec, Z., Jakovina, K., Brdar, B., Slade, N., Rieger, R., Vukelic, M., Jelaković, B.
Proc Natl Acad Sci USA **104**(29):12129-34 (2007)

204. Selective Toxicity of Aristolochic Acids I and II.
Shibutani, S., Dong, H., Suzuki, N., Ueda, S., Miller, F., Grollman, A.P.
Drug Metab Dispos **35**(7):1217-22 (2007)

205. Molecular simulations reveal a common binding mode for glycosylase binding of oxidatively damaged DNA lesions.
Song, K., Kelso, C., de los Santos, C., Grollman, A.P., Simmerling, C.
J Am Chem Soc **129**(47):14536-7 (2007)

206. Role of environmental toxins in endemic (Balkan) nephropathy.
Grollman, A.P., Jelaković, B.
J Am Soc Nephrol **18**(11):2817-23 (2007)

207. Limitations of "evidence-based indications" for herbs.
Marcus, D.M., Grollman, A.P.
Mayo Clin Proc **82**(11):1433 (2007)

208. Chromatin structure regulation in transforming growth factor-beta-directed epithelial-mesenchymal transition.
Blumenberg, M., Gao, S., Dickman, K.G., Grollman, A.P., Bottinger, E.P., Zavadil, J.
Cells Tissues Organs **185**(1-3):162-74 (2007)

209. Molecular mechanics parameters for the FapydG DNA lesion.
Song, K., Hornak, V., de los Santos, C., Grollman, A.P., Simmerling, C.
J Comput Chem **29**(1):17-23 (2008)

210. Substrate specificity and excision kinetics of natural polymorphic variants and phosphomimetic mutants of human 8-oxoguanine-DNA glycosylase.
Sidorenko, V.S., Grollman, A.P., Jaruga, P., Dizdaroglu, M., Zharkov, D.O.
FEBS J **276**(18):5149-62 (2009)

211. An improved reaction coordinate for nucleic acid base flipping studies
Song K., Campbell A.J., Bergonzo C., de los Santos C., Grollman A.P., Simmerling C.
J. Chem. Theory Comput **5**(11):3105–3113 (2009).

212. Aristolochic acid nephropathy: an environmental and iatrogenic disease
Grollman A.P., Scarborough, J., Jelakovic´, B.
Advances in Molecular Toxicology **3**. Ed. Fishbein JC.
Elsevier: Amsterdam, The Netherlands 211-222 (2009).

213. DNA adducts of aristolochic acid II: total synthesis and site-specific mutagenesis studies in mammalian cells.
Attaluri S., Bonala R.R., Yang I.Y., Lukin M.A., Wen Y., Grollman A.P., Moriya M., Iden C.R., Johnson F.
Nucleic Acids Res **38**(1):339-52 (2010).

214. Detoxification of aristolochic acid I by O-demethylation: Less nephrotoxicity and genotoxicity of aristolochic acid Ia in rodents.
Shibutani S., Bonala R.R., Rosenquist T., Rieger R., Suzuki N., Johnson F., Miller F., Grollman A.P.
Int J Cancer **127**(5):1021-7 (2010).

215. Nephrotoxicity of natural products: aristolochic acid and fungal toxins
Dickman, K.G. and Grollman, A.P.
Comprehensive Toxicology v7, Renal Toxicology (2nd ed), Schnellmann, Elsevier: Oxford 433-458 (2010).

216. Cytochrome P450 1A2 detoxicates aristolochic acid in the mouse.
Rosenquist, T.A., Einolf, H.J., Dickman K.G., Wang. L., Smith. A., Grollman. A.P.
Drug Metab Dispos **38**(5):761-8 (2010).

217. TP53 mutational signature for aristolochic acid: an environmental carcinogen.
Moriya, M., Slade, N., Brda,r B., Medverec, Z., Tomic, K., Jelakovic', B., Wu, Truong, S., Fernandes, A. and Grollman, A.P.
Int J Cancer **129**(6):1532-6 (2011). PMID: 21413016

218. Aristolactam-DNA adducts in the renal cortex: Biomarkers of environmental exposure to aristolochic acid.
Jelaković, B., Karanović, S., Vukolić-Lela, I., Miller, F., Edwards, K., Nikolic J., Tomić, K., Slade, N., Brdar, B., Turesky, R., Stipancić, Z., Dittrich,D., Grollman, A.P., and Dickman, K.G.
Kidney International **81**:559-567 (2011). PMID: 22071594

219. Energetic preference of 8-oxoG: eversion pathways in a DNA glycosylase.
Bergonzo, C., Campbell, A.J., de Los Santos, C., Grollman, A.P., Simmerling, C.
J Am Chem Soc **133**(37):14504–14506 (2011). PMID: 21848286

220. Lack of recognition by global-genome nucleotide excision repair accounts for the high mutagenicity and persistence of aristolactam-DNA adducts.
Sidorenko, V.S., Yeo, J-E, Bonala, R.R., Johnson, F., Scharer, O.D., and Grollman, A.P.
Nucleic Acids Res **40**(6):2494-2505 (2012). PMID: 22121226

221. Aristolochic acid-associated urothelial carcinoma in Taiwan.
Chen C-H, Dickman K.G., Moriya M., Zavadil J., Sidorenko V.S., Edwards K.L., Gnatenko D.V., Wu L., Turesky R.J.K., Wu X-R, Pu Y-S, and Grollman A.P.
Proc Natl. Acad Sci **109**(21):8241-8246 (2012). PMID: 22493262

222. The Consequences of Ineffective Regulation of Dietary Supplements.
Marcus D.M., Grollman A.P.
Arch Intern Med **172**(13):1035-1036 (2012). PMID: 22777632

223. A fluorescence-based analysis of aristolochic acid-derived DNA adducts.
Romanov V., Sidorenko V., Rosenquist T.A., Whyard T., and Grollman A.P.
Anal Biochem **427**:49-51 (2012). PMID: 22484040

224. Biomonitoring of aristolactam-DNA adducts in human tissues using ultra-performance liquid chromatography/ion-trap mass spectroscopy.
Yun B., Rosenquist T., Sidorenko V., Iden C.R., Chen C.H., Pu Y.S., Bonala R., Johnson F., Dickman K.G., Grollman A.P., and Turesky R.J. *Chem Res Toxicol* **25**:1119-31 (2012). PMID: 22515372

225. Aristolochic acid nephropathy: Harbinger of a global iatrogenic disease.
Grollman A.P.
Environmental and Molecular Mutagenesis **54**(1):1-7 (2013). PMID: 23238808

226. Aristolochic Acid-Induced Upper Tract Urothelial Carcinoma in Taiwan: Clinical Characteristics and Outcomes.
Chen C-H., Dickman K.G., Huang C-Y., Moriya M., Shun C-T., Tai H-C., Huang K-H., Wang S-M., Lee Y-J., Grollman A.P., Pu Y-S.
Int J Cancer **133**(1):14-21 (2013). PMID 23292929

227. TERT promoter mutations occur frequently in gliomas and a subset of tumors derived from cells with low rates of self-renewal.
Killela P.J., Reitman Z.J., Jiao Y., Bettegowda C., Agrawal N., Diaz Jr. L.A., Friedman A.H., Friedman H., Gallia G.L., Giovanella B.C., Grollman A.P., He T-C., He Y., Hruban R.H., Jallo G.I., Mandahl N., Meeker A.K., Mertens F., Netto G.J., Rasheed B.A., Riggins G.J., Rosenquist T.A., Schiffman M., Shih I-M., Theodorescu D., Torbenson M.S., Velculescu V.E., Wang T-L., Wentzensen N., Wood L.D., Zhang M., McLendon R.E., Bigner D.D. Kinzler K. W., Vogelstein B., Papadopoulos N., Yan H.
PNAS **110**(15): 6021-6026 (2013). PMID 23530248

228. Analysis of TP53 mutation spectra reveals the fingerprint of the potent environmental carcinogen, aristolochic acid.
Hollstein M., Moriya M., Grollman A.P., Olivier M.
Mutat Res **753**(1):41-49 (2013). PMID 23422071

229. Mutational Signature of Aristolochic Acid Exposure as Revealed by Whole Exome Sequencing.
Hoang M.L., Chen C-H., Sidorenko V.S., He J., Dickman K.G., Yun B.H., Moriya M., Niknafs N., Douville C., Karchin R., Turesky R.J., Pu Y-S., Vogelstein B., Papadopoulos N., Grollman A.P., Kinzler K.W., Rosenquist T.A.
Sci Transl Med **5**(197):197ra102 (2013). PMID23926200

230. Human Formalin-Fixed Paraffin-Embedded Tissues: An Untapped Specimen for Biomonitoring of Carcinogen DNA Adducts by Mass Spectrometry.
Yun B.H., Rosenquist T.A., Nikolić J. Dragiceivić D., Tomić K., Jelaković B., Dickman K.G., Grollman A.P., Turesky R.J.
Analytical Chem **85**(9):4251-4258 (2013). PMID: 23550627

231. Consensus statement on screening, diagnosis, classification and treatment of endemic (Balkan) nephropathy.
Jelaković B., Nikolić J., Radovanovic Z., Nortier J., Cosyns J.P., Grollman A.P., et al.
Nephrol Dial Transplant **29**(11):2020-2027 (2014). PMID 24166461

232. Aristolochic Acid-Induced Urothelial Carcinoma: A Preventable Global Disease
Grollman A.P.
Proceedings, 44th Intl Symposium of the Princess Takamatsu Cancer Research Fund (2013)

233. Highlights from the first symposium on upper tract urothelial carcinoma.
Matin S.F., Shariat S.F., Milowsky M.I., Hansel D.E., Kassouf W., Koppie T., Bajorin D., Grollman A.P.
Urol Oncol **32**(3):309-316 (2014). PMID 24397995

234. Is herbal tea consumption a factor in endemic nephropathy?
Ivković V., Karanović S, Edwards K., Grollman A.P., Jelaković B.
Eur J Epidemiol **29**(3):221-224 (2014). PMID 24623403

235. Bioactivation of the human carcinogen aristolochic acid.
Sidorenko V., Attaluri S., Zaitseva I., Iden C.R., Dickman K.G. Johnson F, Grollman A.P.
Carcinogenesis **35**(8):1814-1822 (2014). PMID 24743514

236. Formalin-fixed paraffin-embedded tissue as a source for quantitation of carcinogen DNA adducts: aristolochic acid as a prototype carcinogen
Yun B.H., Yao L., Jelaković B., Nikolić J., Dickman K.G., Grollman A.P., Rosenquist T.A., Turesky R.J.
Carcinogenesis **35**(9):2055-2061 (2014). PMID 24776219

237. Epidemiology and Risk Factors for Upper Urinary Urothelial Cancers
Dickman K.G., Fritsche H-M., Grollman A.P., Thalmann G., Catto J.
In *Upper Tract Urothelial Carcinoma,* Shariat S.F. and Xylinas E. eds. Springer, NY (2015)

238. Chronic dietary exposure to aristolochic acid and kidney function in native farmers from a Croatian endemic area and Bosnian immigrants
Jelaković B., Lela I.V., Karanović S., Dika Z, Kos J., Dickman K., Šekoranja M., Poljičanin T., Mišic M., Premuzić V., Abramović M., Matijević V., Medved M.M., Cvitković A., Edwards K., Fuček M., Leko N., Teskera T., Laganović M., Čvorišćec D., and Grollman A.P.
Clin J Am Soc Nephro **10**(2):215-223 (2015). PMID 25587102

239. Active destabilization of base pairs by a DNA glycosylase wedge initiates damage Recognition.
Kuznetsov N.A., Bergonzo C., Campbell A.J., Li H., Mechetin G.V., de los Santos C., Grollman A.P., Fedorova O.S., Zharkov K.O., Simmerling C.
Nucleic Acids Research **43**(1):272-281 (2015). PMID 25520195

240. Aristolochic acid-induced apoptosis and G2 cell cycle arrest depends on ROS generation and MAP kinases activation.
Romanov V., Whyard T.C., Waltzer W.C., Grollman A.P., Rosenquist T..
Arch Toxicol **89**(1) 47-56 (2015). PMID: 24792323

241. Active destabilization of base pairs by a DNA glycosylase wedge initiates damage recognition.
Kuznetsov N.A., Bergonzo C., Campbell A.J., Li H., Mechetin G.V., de los Santos C., Grollman A.P., Fedorova O.S., Zharkov D.O., Simmerling C.
Nucleic Acids Res **43**(1):272-81 (2015). PMID: 25520195

242. New Approaches for Biomonitoring Exposure to Human Carcinogen Aristolochic Acid
Yun B.H., Sidorenko V.S., Rosenquist T.A., Dickman K.G., Grollman A.P., Turesky R.J.
Toxicol Res (Camb) **4**(4):763-776 (2015). PMID: 26366284

243. Impact of thymine glycol damage on DNA duplex energetics: Correlations with lesion-induced biochemical and structural consequences
Minetti C.A., Remeta D.P., Iden C.R., Johnson F., Grollman A.P., Breslauer K.J.
Biopolymers **103**(9): 491-508 (2015). PMID: 25991500

244. A tribute in memory of Richard B. (Dick) Setlow (1921-2015)
Hanawalt P., Grollman A., Mitra, S.
DNA Repair (Amst). **33**:111-114 (2015). PMID: 26460386

245. Low-Coverage Exome Sequencing Screen in Formalin-Fixed Paraffin-Embedded Tumors Reveals Evidence of Exposure to Carcinogenic Aristolochic Acid
Castells X, Karanović S, Ardin M, Tomić K, Xylinas E, Durand G, Villar S, Forey N, Le Calvez-Kelm F, Voegele C, Karlović K, Mišić M, Dittrich D, Dolgalev I, McKay J, Shariat SF, Sidorenko VS, Fernandes A, Heguy A, Dickman KG, Olivier M, Grollman AP, Jelaković B, Zavadil J.
Cancer Epidemiol Biomarkers Pre **24**(12):1873-81 (2015) PMID: 26383547

246. Toxicity of Botanical Medicines: An Overlooked Global Health Problem
Marcus D.M., Grollman A.P.
AM J Public Health **106**(1):16-7 (2016). PMID: 26562106

247. A dynamic checkpoint in oxidative lesion discrimination by formamidopyrimidine-DNA glycosylase
Li H., Endutkin A.V., Bergonzo C., Campbell A.J., de Los Santos C., Grollman A., Zharkov D.O., Simmerling C.
Nucleic Acids Res **44**(2):683-94 (2016). PMID: 26553802

248. The non-homologous end-joining pathway of S. cerevisiae works effectively in G1-phase cells, and relegates cognate ends correctly and non-randomly.
Gao S., Honey S., Futcher B., Grollman A.P.
DNA Repair **42**:1-10 (2016). PMID: 27130982

249. Global hazards of herbal remedies: lessons from Aristolochia.
Grollman A.P., Marcus D.M.
EMBO **17**(5):619-625(2016). PMID: 27113747

250. Multiclass Carcinogeneic DNA Adduct Quantification in formalin-Fixed Paraffin-Embedded Tissues by Ultraperformance Liquid Chromatography-Tandem Mass Spectrometry.
Guo J., Yun B.H., Upadhyaya P., Yao L., Krishnamachari S., Rosenquist T.A., Grollman A.P., Turesky R.J.
Anal Chem **88**(9):4780-4787(2016). PMID: 27043225

251. Recurrence pattern and TP53 mutation in upper urinary tract urothelial carcinoma
Chen C.H., Dickman K.G., Huang C.Y., Shun C.T., Tai H.C. Huang K.H., Wang S.M., Lee Y.J., Grollman A.P., Pu Y.S.
Oncotarget **7**(29):45225-45236 (2016). PMID: 27286260

252. Mutational signature of aristolochic acid: Clue to the recognition of a global disease.
Rosenquist T.A., Grollman A.P.
DNA Repair 44:205-211(2016). PMID: 27237586

253. Sulfotransferase-1A1-dependent bioactivation of aristolochic acid I and N-hydroxyaristolactam I in human cells.
Hashimoto K., Zaitseva I.N., Bonala R., Attaluri S., Ozga K., Iden C.R., Johnson F., Moriya M., Grollman A.P., Sidorenko V.S.
Carcinogenesis **37**(7):647-55 (2016). PMID: 27207664

254. Genome-wide quantification of rare somatic mutations in normal human tissues using massively parallel sequencing.
Hoang M.L., Kinde I., Tomasetti C., McMahon K.W., Rosenquist T.A., Grollman A.P., Kinzler K.W., Vogelstein B., Papadopoulos N.
Proc Natl Acad Sci (2016). PMID: 27528664

255. Aristolochic Acid in the etiology of renal cell carcinoma.
Hoang M.L., Chen C.H., Chen P-C., Roberts N.J., Dickman K.G., Yun B.H., Turesky R.J., Pu Y-S., Vogelstein B., Papadopoulos N., Grollman A.P., Kinzler K.W., Rosenquist T.A.
Cancer Epidemiol Biomarkers Prev **113**(35):9846-9851, (2016).
PMID: 27555084

256. Y-family DNA polymerase-independent gap-filling translesion synthesis across aristolochic acid-derived adenine adducts in mouse cells.
Hashimoto K., Bonala R., Johnsona F., Grollman A.P., Moriya M.
DNA Repair **46**:55-60 (2016). PMID: 27497692

257. Epidemiology, diagnosis, preoperative evaluation and prognostic assessment of upper-tract urothelial carcinoma (UTUC).
Soria F., Shariat S.F., Lerner S.P., Fritsche H-M., Rink M., Kassouf W., Spiess P.E., Lotan Y., Ye D., Fernandez M.I., Kikuchi E., Chade D.C., Babjuk M., Grollman A.P., Thalmann G.N.
World J Urol **35**(3):379-387 (2017). PMID: 27604375

258. DNA deformation-coupled recognition of 8-oxoguanine: conformational kinetic gating in human DNA glycosylase.
Li H., Endutkin A.V., Bergonzo C., Fu L., Grollman A.P., Zharkov D.O., Simmerling C.
JACS **139**(7):2682-2692 (2017). PMID: 28098999

259. Human liver-kidney model elucidates the mechanisms of aristolochic acid nephrotoxicity.
Chang S-Y., Weber E.J., Sidorenko V.S., Chapron A., Yeung C.K., Gao C, Mao Q., Shen D., Wang J., Rosenquist T.A., Dickman K.G., Neumann T., Grollman A.P., Kelly E.J., Himmelfarb J., Eaton D.L.
JCI Insights **2**(22) (2017) PMID: 29202460

260. A Rapid Throughput Method To Extract DNA from Formalin-Fixed Paraffin-Embedded Tissues for Biomonitoring Carcinogenic DNA Adducts.
Yun BH, Xiao S, Yao L, Krishnamachari S, Rosenquist TA, Dickman KG, Grollman AP, Murugan P, Weight CJ, Turesky RJ.
Chem Res Toxicol **30**(12):2130-2139 (2017). PMID: 29120619

261. Non-invasive detection of urothelial cancer through the analysis of driver gene mutations and aneuploidy
Springer S, Chen C-H, Del Carmen Rodriguez Pena M, Li L, Douville C, Wang Y, Cohen J, Taheri D, Afsari B, Silliman N, Schaefer J, Ptak J, Dobbyn L, Papoli M, Kinde I, Tregnago A C, Bezerra S M, VandenBussche C, Fujita K, Ertoy D, Cunha I W, Yu L, Bivalacqua T J, Grollman A P, Diaz Jr L A, Karchin R, Danilova L, Huang C-Y, Shun C-T, Turesky R J, Yun B H, Rosenquist T A, Pu Y-S , Hruban R, Tomasetti C, Papadopoulos N, Kinzler K W, Vogelstein B, Dickman K G, Netto G J.
eLife, (2018) Mar 20;7. PMID: 29557778