

COMPLETE PUBLICATIONS

Text Book

Editor of "Advances in DNA Damage and Repair; Oxygen Radical Effects, Cellular Protection and Biological Consequences", Plenum Publ. Corp., New York, 1999.

Papers Published in Peer-Reviewed Journals and Books

1. Dizdaroglu M., Scherz, H., and von Sonntag, C., " γ -Radiolysis of meso-Erythritol in Aqueous Solution," Z. Naturforsch. 27b, 29-41 (1972).
2. von Sonntag, C., and Dizdaroglu, M., "Radical Chain Reactions in Crystalline alpha-Lactose Monohydrate," Z. Naturforsch. 28b, 367-368 (1973).
3. Dizdaroglu, M., von Sonntag, C., Schulte-Frohlinde, D., and Dahlhoff, W.V., "Radiation Chemical Preparation of 5-Deoxylactobionic Acid," Liebigs Ann. Chem. 1592-1594 (1973).
4. Dizdaroglu, M., and von Sonntag, C., " γ -Radiolysis of Cellobiose in N₂O-saturated Aqueous Solution, Part I. Identification of the Products," Z. Naturforsch. 28b, 635-646 (1973).
5. Dizdaroglu, M., Henneberg, D., and von Sonntag, C., "The Mass Spectra of TMS-Ethers of Deuterated Polyalcohols. A contribution to the Structural Investigation of Sugars," Org. Mass Spectr. 8, 335-345 (1974).
6. von Sonntag, C., Neuwald, K., and Dizdaroglu, M., " γ -Radiolysis of 2-Deoxy-D-Ribose in the Crystalline State. Conversion of 2-Deoxy-D-Ribose into 2,5-Deoxy-D-erythro-pentonic Acid via a Chain Reaction," Radiat. Res. 58, 1-8 (1974).
7. Dizdaroglu, M., Henneberg, D., Schomburg, G., and von Sonntag, C., " γ -Radiolysis of Glucose in Deoxygenated N₂O Saturated Aqueous Solution," Z. Naturforsch. 30b, 416-424 (1975).
8. Dizdaroglu, M., von Sonntag, C., and Schulte-Frohlinde, D., "Strand Breaks and Sugar Release by γ -Irradiation of DNA in Aqueous Solution," J. Amer. Chem. Soc. 97, 2277-2278 (1975).
9. Dizdaroglu, M., Schulte-Frohlinde, D., and von Sonntag, C., "Strand Breaks and Sugar Release by γ -Irradiation of DNA in Aqueous Solution. The Effect of Oxygen," Z. Naturforsch. 30c, 826-828 (1975).
10. Dizdaroglu, M., Leitich, J., and von Sonntag, C., "Conversion of D-Fructose into 6-Deoxy-threo 2,5-hexodiulose by γ -Irradiation. A Chain Reaction in the Crystalline State," Carbohydr. Res., 47, 15-23 (1976).
11. Dizdaroglu, M., Neuwald, K., and von Sonntag, C., "Radiation Chemistry of DNA Model Compounds, IX. Carbohydrate Products in the γ -Radiolysis of Thymidine in Aqueous Solution. The Radical Induced Scission of the N-Glycosidic Bond," Z. Naturforsch. 31b, 227-233 (1976).

12. von Sonntag, C., Dizdaroglu, M., and Schulte-Frohlinde, D., " γ -Radiolysis of Cellobiose in N_2O -Saturated Aqueous Solution, Part II. Quantitative Measurements. Mechanisms of the Radical Induced Scission of the Glycosidic Linkage," *Z. Naturforsch.* 31b, 857-864 (1976).
13. Baugh, P.J., Goodall, J.I., Phillips, G.O., von Sonntag, C., and Dizdaroglu, M., "Radiation Induced Ring Opening in Cyclic Oligosaccharide Hydrates," *Carbohydr. Res.* 49, 313-323 (1976).
14. Dizdaroglu, M., Henneberg, D., Neuwald, K., Schomburg, G., von Sonntag, C., " γ -Radiolysis of Crystalline D-Glucose and D-Fructose," *Z. Naturforsch.* 32b, 213-224 (1977).
15. von Sonntag, C., and Dizdaroglu, M., "The Reactions of OH Radicals with D-Ribose in Deoxygenated and Oxygenated Aqueous Solution," *Carbohydr. Res.* 58, 21-30 (1977).
16. Dizdaroglu, M., Schulte-Frohlinde, D., and von Sonntag, C., "Isolation of 2-Deoxy-D-erythro-pentonic acid from an Alkali Labile Site in γ -Irradiated DNA," *Int. J. Radiat. Biol.* 32, 481-483 (1977).
17. Dizdaroglu, M., Henneberg, D., von Sonntag, C., and Schuchmann, M.N., "Mass Spectra of Trimethylsilyl Di-O-Methyloximes of Aldosuloses and Dialdoses," *Org. Mass Spectr.* 12, 772-776 (1977).
18. Dizdaroglu, M., Schulte-Frohlinde, D., and von Sonntag, C., " γ -Radiolysis of DNA in Oxygenated Aqueous Solution. Structure of An Alkali Labile Site," *Z. Naturforsch.* 32c, 1021-1022 (1977).
19. Dizdaroglu, W., Hermes, W., Schulte-Frohlinde, and von Sonntag, C., "Enzymatic Digestion of DNA γ -Irradiated in Aqueous Solution. Separation of the Digests by Ion-Exchange Chromatography," *Int. J. Radiat. Biol.* 33, 563-569 (1978).
20. Dizdaroglu, M., Hermes, W., von Sonntag, C., and Schott, H., "Separation of the Sequence Isomers of Pyrimidine Deoxytetranucleoside Triphosphates by High-Performance Ion-Exchange Liquid Chromatography," *J. Chromatogr.* 169, 429-435 (1979).
21. Dizdaroglu, M., and Hermes, W., "Separation of Small DNA and RNA Oligonucleotides by High-Performance Anion-Exchange Liquid Chromatography," *J. Chromatogr.* 171, 321-330 (1979).
22. Beesk, F., Dizdaroglu, M., Schulte-Frohlinde, D., and von Sonntag, C., "Radiation Induced DNA Strand Breaks in Deoxygenated Aqueous Solution. The Formation of Altered Sugars as End Groups," *Int. J. Radiat. Biol.* 36, 565-577. (1979).
23. Dizdaroglu, M., Simic, M.G., and Schott, H., "Separation and Sequencing of the Sequence Isomers of Pyrimidine Deoxypentanucleoside Tetraphosphates by High-Performance Liquid Chromatography," *J. Chromatogr.* 188, 273-279 (1980).
24. Dizdaroglu, M., and Simic, M.G., "Separation of Underivatized Dipeptides by High-Performance Liquid Chromatography on a Weak Anion-Exchange Bonded Phase," *J. Chromatogr.* 195, 119-126 (1980).

25. Dizdaroglu, M., and Simic, M.G., "Separation of Dipeptides by High-Resolution Gas Chromatography on a Fused Silica Capillary Column After Trimethylsilylation," *Anal. Biochem.* 108, 269-273 (1980).
26. Dizdaroglu, M., and Simic, M.G., "Hydroxycyclodieryl Peroxy Radicals," *Oxygen Radicals in Chemistry and Biology*, Eds. M.A.J. Rodgers and E.L. Powers, pp. 619-621, Academic Press, New York (1981).
27. Dizdaroglu, M., Krutzsch, H.C., and Simic, M.G., "Separation of Peptides by High Performance Liquid Chromatography on a Weak Anion-Exchange Bonded Phase," *J. Chromatogr.* 237, 417-428 (1982).
28. Dizdaroglu, M., and Simic, M.G., "Separation of Dipeptide Diastereomers by High-Resolution Gas Chromatography," *J. Chromatogr.* 244, 293-298 (1982).
29. Dizdaroglu, M., Krutzsch, H.C., and Simic, M.G., "Separation of Angiotensins by High-Performance Liquid Chromatography on a Weak Anion-Exchange Bonded Phase," *Anal. Biochem.* 123, 190-193 (1982).
30. Dizdaroglu, M., Simic, M.G., Rioux, R., and St-Pierre, S., "Separation of Diastereomers and Analogues of Neurotensin by Anion-Exchange High-Performance Liquid Chromatography," *J. Chromatogr.* 245, 158-162 (1982).
31. Gajewski, E., Dizdaroglu, M., and Simic, M.G. "Kovats Indices of Trimethylsilylated Amino Acids on Fused Silica Capillary Columns," *J. Chromatogr.* 249, 41-55 (1982).
32. Dizdaroglu, M., Gajewski, E., Simic, M.G., and Krutzsch, H.C., "Identification of Some OH Radical-Induced Products of Lysozyme," *Int. J. Radiat. Biol.* 43, 185-193 (1983).
33. Dizdaroglu, M., and Krutzsch, H.C., "Comparison of Reversed-Phase and Weak Anion-Exchange High-Performance Liquid Chromatographic Methods for Peptide Separations," *J. Chromatogr.* 264, 223-229 (1983).
34. Simic, M.G., Dizdaroglu, M., and DeGraf, E., "Radiation Chemistry - Extravaganza or an Integral Component of Radiation Processing of Food," *Radiat. Phys. Chem.* 22, 233-239 (1983).
35. Dizdaroglu, M., and Simic, M.G., "Isolation and Characterization of Radiation-Induced Aliphatic Peptide Dimers," *Int. J. Radiat. Biol.* 44, 231-239 (1983).
36. Dizdaroglu, M. (invited paper), "Separation of Peptides by High-Performance Ion-Exchange Chromatography," in *Handbook of HPLC for the Separation of Amino Acids, Peptides and Proteins*, Ed., W.S. Hancock, Vol. II, pp. 23-44, CRC Press, Boca Raton (1984).
37. Neta, P., Dizdaroglu, M., and Simic, M.G., "Radiolytic Studies of the Cumyloxyl Radical in Aqueous Solutions," *Israel J. Chem.* 24, 25-28 (1984).

38. Dizdaroglu, and Simic, M.G. "Radiation-Induced Formation of Thymine-Thymine Crosslinks," *Int. J. Radiat. Biol.* 46, 241-246 (1984).
39. Dizdaroglu, M., Gajewski, E., and Simic, M.G., "Enzymatic Digestibility of Peptides Crosslinked by Ionizing Radiation," *Int. J. Radiat. Biol.* 45, 283-295 (1984).
40. Gajewski, E., Dizdaroglu, M., Krutzsch, H.C., and Simic, M.G., "OH Radical-Induced Crosslinks of Methionine Peptides," *Int. J. Radiat. Biol.* 46, 47-55 (1984).
41. Dizdaroglu, M., "The Use of Capillary Gas Chromatography-Mass Spectrometry for Identification of Radiation-Induced DNA Base Damage and DNA Base-Amino Acid Crosslinks," *J. Chromatogr.* 295, 103-121 (1984).
42. Dizdaroglu, M., and Simic, M.G., "Radiation-Induced Crosslinking of Cytosine," *Radiat. Res.* 100, 41-46 (1984).
43. Karam, L.R., Dizdaroglu, M., and Simic, M.G., "OH Radical-Induced Products of Tyrosine Peptides," *Int. J. Radiat. Biol.* 46, 715-724 (1984).
44. Dizdaroglu, M., "Separation of Sequence Isomeric Dipeptides by High-Resolution Gas Chromatography," *J. Chromatogr.* 318, 384-386 (1985).
45. Simic, M.G., and Dizdaroglu, M., "Formation of Radiation-Induced Crosslinks between Thymine and Tyrosine: Possible Model for Crosslinking of DNA and Proteins by Ionizing Radiation," *Biochemistry* 24, 233-236 (1985).
46. Margolis, S., and Dizdaroglu, M., "Separation and Purification of Diastereomers of Angiotensin I by Anion-Exchange High-Performance Liquid Chromatography," *J. Chromatogr.* 322, 117-128 (1985).
47. Dizdaroglu, M. "Application of Capillary Gas Chromatography-Mass Spectrometry to Chemical Characterization of Radiation-Induced Base Damage of DNA: Implications for Assessing DNA Repair Processes," *Anal. Biochem.* 144, 593-603 (1985).
48. Dizdaroglu, M., (invited paper), "Weak Anion-Exchange High-Performance Liquid Chromatography of Peptides," *J. Chromatogr. Chrom. Rev.* 334, 49-69 (1985).
49. Dizdaroglu, M., and Simic, M.G., "Radiation-Induced Crosslinks Between Thymine and Phenylalanine." *Int. J. Radiat. Biol.* 47, 63-69 (1985).
50. Simic, M.G., Gajewski, E., and Dizdaroglu, M., "Kinetics and Mechanisms of Hydroxyl Radical-Induced Crosslinks Between Phenylalanine Peptides," *Radiat. Phys. Chem.* 24, 465-473 (1985).
51. Dizdaroglu, M., "Formation of an 8-Hydroxyguanine Moiety in Deoxyribonucleic Acid on γ -Irradiation in Aqueous Solution," *Biochemistry* 24, 4476-4481 (1985).

52. Dizdaroglu, M., and Simic, M.G., "Radiation-Induced Crosslinking of Pyrimidine Oligonucleotides," *Radiat. Phys. Chem.* 26, 309-316 (1985).
53. Karam, L.R., Simic, M.G., and Dizdaroglu, M., "Free Radical-Induced Crosslinking of Polydeoxythymidylic Acid in Deoxygenated Aqueous Solution," *Int. J. Radiat. Biol.* 49, 67-75 (1986).
54. Dizdaroglu, M., Holwitt, E., Hagan, M.P., and Blakely, W.F., "Formation of Cytosine Glycol and 5,6-Dihydroxycytosine in Deoxyribonucleic Acid on Treatment with Osmium Tetroxide," *Biochem. J.* 235, 531-536 (1986).
55. Dizdaroglu, M., and Bergtold, D.S., "Characterization of Free Radical-Induced Base Damage in DNA at Biologically Relevant Levels," *Anal. Biochem.* 156, 182-188 (1986).
56. Dizdaroglu, M., "Free Radical-Induced Formation of an 8,5'-Cyclo-2'-deoxyguanosine Moiety in Deoxyribonucleic Acid," *Biochem. J.* 238, 247-254 (1986).
57. Dizdaroglu, M., "Characterization of Free Radical-Induced Base Damage in DNA by the Combined Use of Enzymatic Hydrolysis and Gas Chromatography-Mass Spectrometry," *J. Chromatogr.* 367, 357-366 (1986).
58. Dizdaroglu, M., (invited paper), "Chemical Characterization of Ionizing Radiation-Induced Damage to DNA," *BioTechniques* 4, 536-546 (1986).
59. Dizdaroglu, M., Dirksen, M.L., Jiang, H., and Robbins, J.H., "Ionizing Radiation-Induced Damage in the Deoxyribonucleic Acid of Cultured Human Cells: Identification of 8,5'-Cyclo-2'-deoxyguanosine," *Biochem. J.* 241, 929-932 (1987).
60. Dizdaroglu, M., (invited paper), "Measurement and Significance of Free Radical Damage to DNA," in *Free Radicals: Methodology and Concepts*, Eds., C. Rice-Evans and B. Halliwell, pp. 123-138, Richelieu Press, London (1988).
61. Dirksen, M.-L., Blakely, W.F., Holwitt, E., and Dizdaroglu, M., "Effect of DNA Conformation on the Hydroxyl Radical-Induced Formation of 8,5'-Cyclopurine 2'-Deoxyribonucleoside Residues in DNA," *Int. J. Radiat. Biol.* 54, 195-204 (1988).
62. Margolis, S.A., Coxon, B., Gajewski, E., and Dizdaroglu, M., "Structure of a Hydroxyl Radical-Induced Crosslink of Thymine and Tyrosine," *Biochemistry* 27, 6353-6359 (1988).
63. Gajewski, E., Fuciarelli, A.F., and Dizdaroglu, M., "Structure of Hydroxyl Radical-Induced DNA-Protein Crosslinks in Calf Thymus Nucleohistone in vitro," *Int. J. Radiat. Biol.* 54, 445-459 (1988).
64. Karam, L.R., Dizdaroglu, M., and Simic, M.G., "Intramolecular H Atom Abstraction from the Sugar Moiety by Thymine Radicals in Oligo- and Polydeoxynucleotides," *Radiat. Res.* 116, 210-216 (1988).

Dr. Miral Dizdaroglu Complete Publications List

65. Dizdaroglu, M., (invited paper), "Chemical Determination of Oxidative Damage to DNA," in Handbook of Free Radicals and Antioxidants in Biomedicine, Eds., J. Miquel, A.T. Quintanilha and H. Weber, Vol. III, pp. 153-166, CRC Press, Boca Raton (1989).
66. Dizdaroglu, M., Gajewski, E., Reddy, P., and Margolis, S.A., "Structure of a Hydroxyl Radical-induced DNA-Protein Crosslink involving Thymine and Tyrosine in Nucleohistone," *Biochemistry* 28, 3625-3628 (1989).
67. Neta, P., and Dizdaroglu, M., (invited paper), "Radiation Chemistry of Enones," in Chemistry of Enones, Eds., S. Patai and Z. Rappaport, pp. 757-780, J. Wiley & Sons Ltd., New York (1989).
68. Dizdaroglu, M., and Gajewski, E., "Structure and Mechanism of Hydroxyl Radical-induced Formation of a DNA-Protein Cross-Link Involving Thymine and Lysine in Nucleohistone," *Cancer Research* 49, 3463-3467 (1989).
69. Fuciarelli, A.F., Wegher, B.J., Gajewski, E., Dizdaroglu, M., and Blakely, W.F., "Quantitative Measurement of Radiation-induced Base Products in DNA Using Gas Chromatography-Mass Spectrometry," *Radiat. Res.* 119, 219-231 (1989).
70. Aruoma, O.I., Halliwell, B., and Dizdaroglu, M., "Iron Ion-Dependent Modification of Bases in DNA by the Superoxide Radical-Generating System Hypoxanthine/Xanthine Oxidase," *J. Biol. Chem.* 264, 13024-13028 (1989).
71. Jackson, J.H., Gajewski, E., Schraufstatter, I.U., Hyslop, P.A., Fuciarelli, A.F., Cochrane, C.G., and Dizdaroglu, M., "Damage to the Bases in DNA by Stimulated Human Neutrophils," *J. Clin. Invest.* 84, 1644-1649 (1989).
72. Aruoma, O.I., Halliwell, B., Gajewski, E., and Dizdaroglu, M., "Damage to the Bases in DNA Induced by Hydrogen Peroxide and Ferric Ion Chelates," *J. Biol. Chem.* 264, 20509-20512 (1989).
73. Gajewski, E., and Dizdaroglu, M., "Hydroxyl Radical-Induced Cross-linking of Cytosine and Tyrosine in Nucleohistone," *Biochemistry* 29, 977-980 (1990).
74. Dizdaroglu, M., and Gajewski, E. (invited paper), "Selected-Ion Mass Spectrometry: Assays of Oxidative DNA Damage," *Methods in Enzymology*, 186, 530-544 (1990).
75. Blakely, W.F., Fuciarelli, A.F., Wegher, B.J., and Dizdaroglu, M., "Hydrogen peroxide-Induced Base Damage in Deoxyribonucleic Acid," *Radiat. Res.* 121, 338-343 (1990).
76. Wood, M.L., Dizdaroglu, M., Gajewski, E., and Essigmann, J.M., "Mechanistic studies of ionizing radiation and oxidative mutagenesis: genetic effects of a single 8-hydroxyguanine (7-hydro-8-oxoguanine) residue inserted at a unique site in a viral genome," *Biochemistry* 29, 7024-7032 (1990).
77. Gajewski, E., Rao, G., Nackerdien, Z., and Dizdaroglu, M., "Modification of DNA Bases in Mammalian Chromatin by Radiation-Generated Free Radicals," *Biochemistry* 29, 7876-7882 (1990).

78. Dizdaroglu, M., (invited paper), "Measurement of DNA Base Damage and Protein Cross-links in Mammalian Chromatin," in *Ionizing Radiation Damage to DNA: Molecular Aspects, UCLA Symposia on Molecular and Cellular Biology, New Series, Vol. 136*, pp. 17-30, 1990.
79. Dizdaroglu, M., Aruoma, O.I., and Halliwell, B., "Modification of the Bases in DNA by Copper Ion-1,10-Phenanthroline Complexes," *Biochemistry* 29, 8447-8451 (1990).
80. Fuciarelli, A.F., Wegher, B.J., Blakely, W.F., and Dizdaroglu, M., "Yields of Radiation-Induced Base Products in DNA. Effects of DNA Conformation and Gassing Conditions," *Int. J. Radiat. Biol.* 58, 397-415 (1990).
81. Akman, S.A., Doroshov, J.H., and Dizdaroglu, M., "Base Modifications in Plasmid DNA Caused by Potassium Permanganate," *Arch. Biochem. Biophys.* 282, 202-205 (1990).
82. Dizdaroglu, M., (invited paper), "Gas Chromatography-Mass Spectrometry of Free Radical-Induced Products of Pyrimidines and Purines in DNA," *Methods in Enzymology* 193, 842-857 (1990).
83. Dizdaroglu, M., (invited paper), "The Purification of Polypeptide Samples by Ion-Exchange Chromatography on Silica-Based Supports," in *High-Performance Liquid Chromatography in Biotechnology*, Ed., W. S. Hancock, pp. 263-278, J. Wiley & Sons, New York, 1990.
84. Aruoma, O.I., Halliwell, B., Gajewski, E., and Dizdaroglu, M., "Copper Ion-Dependent Damage to the Bases in DNA by Hydrogen Peroxide," *Biochem. J.* 273, 601-604 (1991).
85. Dizdaroglu, M., Rao, G., Halliwell, B., and Gajewski, E., "Damage to the Bases in Mammalian Chromatin by Hydrogen Peroxide in the Presence of Ferric and Cupric Ions," *Arch. Biochem. Biophys.* 285, 317-324 (1991).
86. Dizdaroglu, M., Nackerdien, Z., Chao, B.C., Gajewski, E., and Rao, G., "Chemical Nature of in vivo DNA Base Damage in Hydrogen Peroxide-Treated Mammalian Cells," *Arch. Biochem. Biophys.* 285, 388-390 (1991).
87. Gajewski, E., Aruoma, O. I., Dizdaroglu, M., and Halliwell, B., "Bleomycin-dependent Damage to the Bases in DNA is a Minor Reaction," *Biochemistry* 30, 2444-2448 (1991).
88. Dizdaroglu, M., (invited paper), "Chemical Determination of Free Radical-induced Damage to DNA," *Free Radic. Biol. Med.* 10, 225-242 (1991).
89. Nackerdien, Z., Rao, G., Cacciuttolo, M. A., Gajewski, E., and Dizdaroglu, M., "Chemical Nature of DNA-Protein Cross-links Produced in Mammalian Chromatin by Hydrogen Peroxide in the Presence of Iron or Copper Ions," *Biochemistry* 30, 4873-4879 (1991).
90. Akman, S. A., Forrest, G. P., Doroshov, J. H., and Dizdaroglu, M., "Mutation of Potassium Permanganate and Hydrogen Peroxide-Treated Plasmid pZ189 Replicating in CV-1 Monkey Kidney Cells," *Mutat. Res.* 261, 123-130 (1991).

91. Nackerdien, Z., Kasprzak, K. S., Rao, G., Halliwell, B., and Dizdaroglu, M., "Nickel(II)- and Cobalt(II)-dependent Damage by Hydrogen Peroxide to the DNA Bases in Isolated Human Chromatin," *Cancer Res.* 51, 5837-5842 (1991).
92. Boiteux, S., Gajewski, E., Laval, J., and Dizdaroglu, M., "Substrate Specificity of the Escherichia Coli Fpg Protein (Formamidopyrimidine-DNA Glycosylase): Excision of Purine Lesions in DNA Produced by Ionizing Radiation or Photosensitization," *Biochemistry* 31, 106-110 (1992).
93. Dizdaroglu, M., (invited paper), "Measurement of Radiation-Induced Damage to DNA at the Molecular Level," *Int. J. Radiat. Biol.* 61, 175-183 (1992).
94. Halliwell, B., and Dizdaroglu, M., "Commentary: The Measurement of Oxidative Damage to DNA by HPLC and GC/MS Techniques," *Free Radic. Res. Commun.* 16, 75-87 (1992).
95. Akman, S. A., Doroshov, J. H., Burke, T. G., and Dizdaroglu, M., "DNA Base Modifications Induced in Isolated Human Chromatin by NADH Dehydrogenase-Catalyzed Reduction of Doxorubicin," *Biochemistry* 31, 3500-3506 (1992).
96. Nackerdien, Z., Olinski, R., and Dizdaroglu, M., "DNA Base Damage in Chromatin of γ -Irradiated Cultured Human Cells," *Free Radic. Res. Commun.* 16, 259-272 (1992).
97. Olinski, R., Nackerdien, Z., and Dizdaroglu, M., "DNA-Protein Cross-linking Between Thymine and Tyrosine in Chromatin of γ -Irradiated or H_2O_2 -Treated Cultured Human Cells," *Archiv. Biochem. Biophys.* 297, 139-143 (1992).
98. Olinski, R., Zastawny, T., Budzbon, J., Skokowski, J., Zegarski, W., and Dizdaroglu, M., "DNA Base Modifications in Chromatin of Human Cancerous Tissues," *FEBS Lett.* 309, 193-198 (1992).
99. Dizdaroglu, M., (invited paper), "Oxidative Damage to DNA in Mammalian Chromatin," *Mutat. Res.* 275, 331-342 (1992).
100. Kasprzak, K. S., Diwan, B. A., Rice, J. M., Misra, M., Olinski, R., and Dizdaroglu, M., "Nickel(II)-Mediated Oxidative DNA Base Damage in Renal and Hepatic Chromatin of Pregnant Rats and Their Fetuses. Possible Relevance to Nickel(II) Carcinogenesis," *Chem. Res. Toxicol.* 5, 809-815 (1992).
101. Dizdaroglu, M., "Quantitative Determination of Oxidative Base Damage in DNA by Stable Isotope-Dilution Mass Spectrometry," *FEBS Lett.* 315, 1-6 (1993).
102. Misra, M., Olinski, R., Dizdaroglu, M., and Kasprzak, K. S., "Enhancement by L-Histidine of Nickel (II)-Induced DNA-Protein Cross-Linking and Oxidative DNA Base Damage in the Rat Kidney," *Chem. Res. Toxicol.* 6, 33-37 (1993).

103. Dizdaroglu, M., Olinski, R., Doroshow, J. H., and Akman, S. A., "Modification of DNA Bases in Chromatin of Intact Target Human Cells by Activated Human Polymorphonuclear Leukocytes," *Cancer Res.* 53, 1269-1272 (1993).
104. Dizdaroglu, M., (invited paper), "Chemistry of Free Radical Damage to DNA and Nucleoprotein," in *DNA and Free Radicals*, Edited by B. Halliwell and O. I. Aruoma, Ellis Horwood, London, pp. 19-39, 1993.
105. Akman, S. A., Kensler, T. W., Doroshow, J. H., and Dizdaroglu, M., "Copper Ion-Mediated Modification of DNA Bases in vitro by Benzoyl Peroxide," *Carcinogenesis* 14, 1971-1974 (1993).
106. Dizdaroglu, M., Laval, J., and Boiteux, S., "Substrate Specificity of Escherichia coli Endonuclease III: Excision of Thymine- and Cytosine-Derived Lesions in DNA Produced by Radiation-Generated Free Radicals," *Biochemistry* 32, 12105-12111 (1993).
107. Mori, T., Hori, Y., and Dizdaroglu, M., "DNA Base Damage Generated in vivo in Hepatic Chromatin of Mice Upon Whole Body γ -Irradiation," *Int. J. Radiat. Biol.* 64, 645-650 (1993).
108. Gommers-Ampt, J. H., Van Leeuwen, F., de Beer, A. L. J., Vliegthart, J. F. G., Dizdaroglu, M., Kowalak, J. A., Crain, P. F., and Borst, P., " β -D-Glucosyl-hydroxymethyluracil: a Novel Modified Base Present in the DNA of the Parasitic Protozoan *Trypanosoma brucei*," *Cell* 75, 1129-1136 (1993).
109. Dizdaroglu, M., (invited paper), "Chemical Determination of Oxidative DNA Damage by Gas Chromatography-Mass Spectrometry," *Methods Enzymol.* 234, 3-16 (1994).
110. Toyokuni, S., Mori, T., and Dizdaroglu, M., "DNA Base Modifications in Renal Chromatin of Wistar Rats Treated with a Renal Carcinogen, Ferric Nitritotriacetate," *Int. J. Cancer* 57, 123-128 (1994).
111. Jaruga, P., Zastawny, T. H., Skokowski, J., Dizdaroglu, M., and Olinski, R., "Oxidative DNA Base Damage and Antioxidant Enzyme Activities in Human Lung Cancer," *FEBS Lett.* 341, 59-64 (1994).
112. Altman, S. A., Zastawny, T. H., Randers, L., Remacle, J., Dizdaroglu, M., and Rao, R., "tert-Butyl Hydroperoxide-mediated DNA Base Damage in Cultured Mammalian Cells," *Mutat. Res.* 306, 35-44 (1994).
113. Kasprzak, K. S., Zastawny, T. H., North, S. L., Riggs, C. W., Diwan, B. A., Rice, J. M., and Dizdaroglu, M., "Oxidative DNA Base Damage in Renal, Hepatic, and Pulmonary Chromatin of Rats After Intraperitoneal Injection of Cobalt(II) Acetate," *Chem. Res. Toxicol.* 7, 329-335 (1994).
114. Mori, T., and Dizdaroglu, M., "Ionizing Radiation Causes Greater DNA Base Damage in Radiation-sensitive Mutant M10 Cells Than in Parent Mouse Lymphoma L5178Y Cells," *Radiat. Res.* 140, 85-90 (1994).

115. Doetsch, P. W., Zastawny, T. H., Martin, A. M. and Dizdaroglu, M., "Monomeric Base Damage Products from Adenine, Guanine, and Thymine Induced by Exposure of DNA to Ultraviolet Radiation," *Biochemistry* 34, 737-742 (1995).
116. Olinski, R., Zastawny, T. H., Foksinski, M., Barecki, A., and Dizdaroglu, M., "DNA Base Modifications and Antioxidant Enzyme Activities in Human Benign Prostatic Hyperplasia," *Free Radic. Biol. Med.* 18, 807-813 (1995).
117. Zastawny, T. H., Altman, S. A., Randers-Eichhorn, L., Madurawe, R., Lumpkin, J. A., Dizdaroglu, M., and Rao, R., "DNA Base Modifications and Membrane Damage in Cultured Mammalian Cells Treated with Iron Ions," *Free Radic. Biol. Med.* 18, 1013-1022 (1995).
118. Zastawny, T. H., Doetsch, P. W., and Dizdaroglu, M., "A Novel Activity of Uracil DNA N-Glycosylase: Excision of Isodialuric Acid (5,6-Dihydroxyuracil) from DNA, a Major Product of Oxidative DNA Damage," *FEBS Lett.* 364, 255-260 (1995).
119. Toyokuni, S., Mori, T., Hiai, H. and Dizdaroglu, M., "Treatment of Wistar Rats with a Renal Carcinogen, Ferric Nitrilotriacetate Causes DNA-Protein Cross-Linking between Thymine and Tyrosine in Renal Chromatin," *Int. J. Cancer* 62, 309-313 (1995).
120. Altman, S. A., Zastawny, T. H., Randers-Eichhorn, L., Cacciuttolo, M., A., Lumpkin, J. A., Akman, S. A., Dizdaroglu, M., and Rao, R., "Formation of DNA-Protein Cross-links in Cultured Mammalian Cells upon Treatment with Iron Ions," *Free Radic. Biol. Med.* 19, 897-902 (1995).
121. Dizdaroglu, M., Zastawny, T. H., Carmical, J. R. and Lloyd, R. S., "A Novel DNA N-Glycosylase Activity of E. coli T4 Endonuclease V that Excises 4,6-Diamino-5-formamido-pyrimidine from DNA, a UV-Radiation- and Hydroxyl Radical-induced Product of Adenine," *Mutat. Res.* 362, 1-8 (1996).
122. Dizdaroglu, M., Karakaya, A., Jaruga, P., Slupphaug, G. and Krokan, H. E., "Novel Activities of Human Uracil DNA N-Glycosylase for Cytosine-Derived Products of Oxidative DNA Damage," *Nucleic Acids Res.* 24, 418-422 (1996).
123. Höss, M., Jaruga, P., Zastawny, T. H., Dizdaroglu, M., and Pääbo, S., "DNA Damage and DNA Sequence Retrieval from Ancient Tissues," *Nucleic Acids Res.* 24, 1304-1307 (1996).
124. Jaruga, P., and Dizdaroglu, M., "Repair of Products of Oxidative DNA Damage in Human Cells," *Nucleic Acids Res.* 24, 1389-1394 (1996).
125. Olinski, R., Zastawny, T. H., Foksinski, M., Windorbska, W., Jaruga, P., and Dizdaroglu, M., "DNA Base Damage in Lymphocytes of Cancer Patients Undergoing Radiation Therapy," *Cancer Lett.* 106, 207-215 (1996).
126. Liu, P. K., Hsu, C. Y., Dizdaroglu, M., Floyd, R. A., Kow, Y. W., Karakaya, A., Rabow, L. and Cui, J.-K. "Damage, Repair and Mutagenesis in Nuclear Genes of the Brain after Forebrain Ischemia and Reperfusion." *J. Neuroscience* 16, 6795-6806 (1996).

127. Karakaya, A., Jaruga, P., Bohr, V. A., Grollman, A. P. and Dizdaroglu, M., "Kinetics of Excision of Purine Lesions from DNA by Fpg Protein," *Nucleic Acids Res.* 25, 474-479 (1997).
128. Kasprzak, K. S., Jaruga, P., Zastawny, T. H., North, S. L., Riggs, C. W., Olinski, R., and Dizdaroglu, M., "Oxidative DNA Base Damage and Its Repair in Kidneys and Livers of Nickel(II)-treated Male F344 Rats," *Carcinogenesis* 18, 271-277 (1997).
129. Sentürker, S., Karahalil, B., Inal, M., Yilmaz, H., Müslümanoğlu, H., Gedikoglu, G., and Dizdaroglu, M., "Oxidative DNA Base Damage and Antioxidant Enzyme Levels in Childhood Acute Lymphoblastic Leukemia," *FEBS Lett.* 416, 286-290 (1997).
130. Deutsch, W. A., Yacoub, A., Jaruga, P., Zastawny, T. H., Madden, C., and Dizdaroglu, M., "Characterization and Mechanism of Action of *Drosophila* Ribosomal Protein S3 DNA Glycosylase Activity for the Removal of Oxidatively Damaged DNA Bases," *J. Biol. Chem.* 272, 32857-32860 (1997).
131. Karahalil, B., Roldán-Arjona, T., and Dizdaroglu, M., "Substrate Specificity of *Schizosaccharomyces pombe* Nth Protein for Products of Oxidative DNA Damage," *Biochemistry* 37, 590-595 (1998).
132. Karahalil, B., Girard, P.-M., Boiteux, S., and Dizdaroglu, M., "Substrate Specificity of the Ogg1 Protein of *Saccharomyces cerevisiae*: Excision of Guanine Lesions Produced in DNA by Ionizing Radiation- or Hydrogen Peroxyde/Metal Ion-Generated Free Radicals," *Nucleic Acids Res.* 26, 1228-1232, 1998.
133. Dizdaroglu, M., (invited paper), "Measurement of Oxidative DNA Damage Using the Technique of Gas Chromatography-Mass Spectrometry," in *Methods in Aging Research*, Edited by B. P. Yu, CRC Press, Boca Raton, pp. 607-620, 1998.
134. Dizdaroglu, M., (invited paper), "Mechanisms of Free Radical Damage to DNA," in *DNA and Free Radicals: Techniques, Mechanisms & Applications*, Edited by O. I. Aruoma and B. Halliwell, OICA International, Santa Lucia and London, pp. 1-24, 1998.
135. Sentürker, S., Auffret van der Kemp, P., You, H.-J., Doetsch, P. W., Dizdaroglu, M., and Boiteux, B., "Substrate Specificities of the Ntg1 and Ntg2 Proteins of *Saccharomyces cerevisiae* for Oxidized Bases are not identical," *Nucleic Acids Res.* 26, 5270-5276, 1998.
136. Dizdaroglu, M., "Facts About the Artifacts in the Measurement of Oxidative DNA Base Damage by Gas Chromatography-Mass Spectrometry," *Free Radic. Res.* 29, 551-563, 1998.
137. Melov, S., Coskun, P., Patel, M., Tuinstra, R., Cottrell, B., Jun, A. S., Zastawny, T. H., Dizdaroglu, M., Goodman, S. I., Huang, T.-T., Miziorkos, H., Epstein, C. J., and Wallace, D. C., "Mitochondrial Disease in Superoxide Dismutase 2 Mutant Mice," *Proc. Natl. Acad. Sci., USA* 96, 846-851, 1999.

138. Dizdaroglu, M., Karahalil, B., Sentürker, S., Buckley, T. J., and Roldán-Arjona T., "Excision of Products of Oxidative DNA Base Damage by Human NTH1 Protein," *Biochemistry* 38, 243-246, 1999.
139. Dizdaroglu, M., "Mechanisms of Oxidative DNA damage; Lesions and Their Measurement," in *Advances in DNA Damage and Repair: Oxygen Radical Effects, Cellular Protection and Biological Consequences*, Edited by M. Dizdaroglu and A. E. Karakaya, Plenum Publishing Corporation, pp. 67-87, 1999.
140. Liang, R., Sentürker, S., Shi, X., Bal., W., Dizdaroglu, M., and Kasprzak, K. S., "Effects of Ni(II) and Cu(II) on DNA Interaction with the N-terminal Sequence of Human Protamine P2: Enhancement of Binding and Mediation of Oxidative DNA Strand Scission and Base Damage," *Carcinogenesis* 20, 893-898, 1999.
141. Lipinski, L. J., Hoehr, N., Mazur, S. J., Dianov, G., Sentürker, S., Dizdaroglu, M., and Bohr, V. A., "Repair of Oxidative DNA Base Lesions Induced by Fluorescent Light is Defective in Xeroderma pigmentosum Group A Cells," *Nucleic Acids. Res.* 27, 3153-3158, 1999.
142. Sentürker, S., Bauche, C., Laval, J., and Dizdaroglu, M., "Substrate Specificity of Deinococcus Radiodurans Fpg Protein," *Biochemistry* 38, 9435-9439, 1999.
143. Sentürker, S., and Dizdaroglu, M., "The Effect of Experimental Conditions on the Levels of Oxidatively Modified Bases in DNA as Measured by Gas Chromatography-Mass Spectrometry. How Many Modified Bases Are Involved? Prepurification or Not?" *Free Radic. Biol. Med.* 27, 370-380, 1999.
144. Anson, R. M., Sentürker, S., Dizdaroglu, M., and Bohr, V. A., "Measurement of Oxidatively Induced Base Lesions in Liver Nuclear and Mitochondrial DNA from Wistar Rats of Different Ages," *Free Radic. Biol. Med.* 27, 456-462, 1999.
145. You, H. J., Swanson, R. L., Harrington, C., Corbett, A. H., Jinks-Robertson, S., Sentürker, S., Wallace, S. S., Boiteux, S., Dizdaroglu, M., and Doetsch, P. W., "Saccharomyces cerevisiae Ntg1p and Ntg2p: Broad Specificity N-Glycosylases for the Repair of Oxidative DNA Damage in the Nucleus and Mitochondria," *Biochemistry* 38, 11298-11306, 1999.
146. Dherin, C., Radicella, J. P., Dizdaroglu, M., and Boiteux, S., "Excision of Oxidatively Damaged DNA Bases by the Human α -hOgg1 Protein and the Polymorphic α -hOgg1(Ser326Cys) Protein Which is Frequently Found in Human Populations," *Nucleic Acids. Res.* 27, 4001-4007, 1999.
147. Dizdaroglu, M., Bauche, C., Rodriguez, H., and Laval, J., "Novel substrates of Escherichia coli Nth protein and its kinetics for excision of modified bases from DNA damaged by free radicals," *Biochemistry* 39, 5586-5592, 2000.
148. Gogos, A., Jantz, D., Sentürker, S., Richardson, D., Dizdaroglu, M., and Clarke, N. D., "Assignment of enzyme substrate specificity by principal component analysis of aligned protein sequences: An experimental test using DNA glycosylase homologues." *Proteins* 40, 98-105, 2000.

149. Audebert, M., Radicella, J. P. and Dizdaroglu, M., "Effect of single mutations in the *OGG1* gene found in human tumors on the substrate specificity of the Ogg1 protein," *Nucleic Acids Res.* 28, 2672-2678, 2000.
150. Rodriguez, H., Jurado, J., Laval, J. and Dizdaroglu, M. "Comparison of the levels of 8-hydroxyguanine in DNA as measured by gas chromatography-mass spectrometry following hydrolysis of DNA by *Escherichia coli* Fpg protein or formic acid," *Nucleic Acids Res.* 28, e75, 2000.
151. Bal, W., Liang, R., Lukszo, J., Lee, S.-H., Dizdaroglu, M., and Kasprzak, K. S., "Ni(II) Specifically cleaves the C-terminal tail of the major variant of histone H2A and forms an oxidative damage-mediating complex with the cleaved-off octapeptide," *Chem. Res. Toxicol.* 13, 616-628, 2000.
152. Hazra, T. K., Izumi, T., Venkataraman, R., Kow, Y. W., Dizdaroglu, M. and Mitra, S., "Characterization of a novel 8-oxoguanine-DNA glycosylase in *Escherichia coli* and identification of the enzyme as endonuclease VIII," *J. Biol. Chem.* 275, 27762-27767, 2000.
153. Dizdaroglu, M., (invited paper), "Oxidative DNA damage and its potential use for monitoring oxidative stress," in *Proceedings of the NATO-ASI Meeting on Human Monitoring After Environmental and Occupational Exposure to Chemical and Physical Agents*, IOS Press, Amsterdam, pp. 76-85, 2000.
154. Dherin, C., Dizdaroglu, M., Doerflinger, H., Boiteux, S. and Radicella, J. P., "Repair of oxidative DNA damage in *Drosophila melanogaster*: Identification and characterization of dOgg1, a second DNA glycosylase activity for 8-hydroxyguanine and formamidopyrimidines," *Nucleic Acids Res.* 28, 4583-4592, 2000.
155. Dizdaroglu, M. (invited paper), "Oxidative DNA damage; mechanisms of product formation and repair by base-excision pathway," In *Free Radicals in Chemistry, Biology and Medicine*, Edited by T. Yoshikawa, S. Toyokuni, Y. Yamamoto and Y. Naito. OICA International Limited: London, pp. 58-76, 2000.
156. Dizdaroglu, M., Jaruga, P. and Rodriguez, H., "Measurement of 8-hydroxy-2'-deoxyguanosine in DNA by high-performance liquid chromatography-mass spectrometry: Comparison with measurement by gas chromatography-mass spectrometry," *Nucleic Acids Res.* 29, e12, 2001.
157. Dizdaroglu, M., Jaruga, P. and Rodriguez, H., "Identification and quantification of 8,5'-cyclo-2'-deoxyadenosine in DNA by liquid chromatography/mass spectrometry," *Free Radic. Biol. Med.* 30, 774-784, 2001.
158. Jaruga, P., Rodriguez, H. and Dizdaroglu, M., "Measurement of 8-hydroxy-2'-deoxyadenosine in DNA by liquid chromatography/mass spectrometry," *Free Radic. Biol. Med.* 31, 336-344, 2001.

159. Dizdaroglu, M., Burgess, S. M., Jaruga, P., Hazra, T. P., Rodriguez, H. and Lloyd, R. S., "Substrate specificity and excision kinetics of *Escherichia coli* endonuclease VIII (Ner) for modified bases in DNA damaged by free radicals," *Biochemistry* 40, 12150-12156, 2001.

160. Sidorkina, O., Dizdaroglu, M. and Laval, J., "Effect of single mutations on the specificity of *Escherichia coli* Fpg protein for excision of purine lesions from DNA damaged by free Radicals," *Free Radic. Biol. Med.* 31, 816-823, 2001.

161. Tuo, J., Müftüoglu, M., Jaruga, P., Chen, C., Brosh, Jr., R. M., Rodriguez, H., Dizdaroglu, M. and Bohr, V. A., "Cockayne syndrome group B gene is involved in base excision repair of 8-hydroxyguanine in DNA," *J. Biol. Chem.* 276, 45772-45779, 2001.

162. Burgess, S., Jaruga, P., Dodson, M. L., Dizdaroglu, M. and Lloyd R. S., "Determination of active site residues in *Escherichia coli* endonuclease VIII," *J. Biol. Chem.* 277, 2938-2944, 2002.

163. Jaruga, P., Birincioglu, M., Rodriguez, H. and Dizdaroglu, M., "Mass spectrometric assays for the tandem lesion 8,5'-cyclo-2'-deoxyguanosine in mammalian DNA," *Biochemistry* 41, 3703-3711, 2002.

164. Jaruga, P., Jabil, R., McCullough, A. K., Rodriguez, H., Dizdaroglu, M. and Lloyd, R. S., "Chlorella virus pyrimidine dimer glycosylase excises ultraviolet radiation- and hydroxyl radical-induced products 4,6-diamino-5-formamidopyrimidine and 2,6-diamino-4-hydroxy-5-formamidopyrimidine from DNA," *Photochem. Photobiol.* 75, 85-91, 2002.

165. Hazra, T. K., Izumi, T., Boldogh, I., Imhoff, B., Kow, Y. W., Jaruga, P., Dizdaroglu, M. and Mitra, S., "Identification and characterization of a novel human DNA glycosylase for repair of modified bases in oxidatively damaged DNA," *Proc. Natl. Acad. Sci., USA* 99, 3523-3528, 2002.

166. Dizdaroglu, M., Jaruga, P., Birincioglu, M. and Rodriguez, H., "Free radical-induced damage to DNA: Mechanisms and measurement," *Free Radic. Biol. Med.* 32, 1102-1115, 2002.

167. Tuo, J., Jaruga, P., Rodriguez, H., Dizdaroglu, M. and Bohr, V. A., "The Cockayne syndrome group B gene product is involved in cellular repair of 8-hydroxyadenine in DNA," *J. Biol. Chem.* 277, 30832-30837, 2002.

168. Dizdaroglu, M., Jaruga, P. and Rodriguez, H., "Mechanisms and measurement of oxidative DNA damage," In *Oxidative Stress and Aging: Advances in Basic Science, Diagnostics and Intervention*. Edited by R. G. Cutler and H. Rodriguez, World Scientific, pp. 165-189, 2002.

169. Morales-Ruiz, T., Birincioglu, M., Jaruga, P., Rodriguez, H., Roldan-Arjona, T. and Dizdaroglu, M., "Arabidopsis thaliana Ogg1 protein excises 8-hydroxyguanine and 2,6-diamino-4-hydroxy-5-formamidopyrimidine from oxidatively damaged DNA containing multiple lesions," *Biochemistry* 42, 3089-3095, 2003.

Dr. Miral Dizdaroglu Complete Publications List

170. Tuo, J., Jaruga, P., Rodriguez, H., Bohr, V. A. and Dizdaroglu, M., "Primary fibroblasts of Cockayne syndrome patients are defective in the cellular repair of 8-hydroxyguanine and 8-hydroxyadenine resulting from oxidative stress," *FASEB J.* 17, 668-674, 2003.
171. Manderville, R. A., Calcutt, M. W., Dai, J., Park, J., Gillman, I. G., Nofhle, R. E., Mohammed, A. K., Birincioglu, M., Dizdaroglu, M., Rodriguez, H. and Akman, S. A. "Stoichiometric preference in copper-promoted oxidative DNA damage by ochratoxin A," *J. Inorg. Biochem.* 95, 87-96, 2003
172. Cooke, M. S., Evans, M. D., Dizdaroglu, M. and Lunec, J., "Oxidative DNA damage: mechanisms, mutation and disease," *FASEB J.* 17, 1195-1214, 2003.
173. Rodriguez, H., O'Connell, C., Barker, P. E., Atha, D. H., Jaruga, P., Birincioglu, M., Marino, M., McAndrew, P., and Dizdaroglu, M., "Biomarkers to detect molecular changes in tissue-engineered medical products," *BioProcessing* 2, 65-66, 2003.
174. Rodriguez, H., Jaruga, P., Birincioglu, M., Barker, P.E., O'Connell, C., and Dizdaroglu, M., "Oxidative DNA damage biomarkers used in tissue engineered skin," In: *Advances in Experimental Medicine and Biology*. Y. Murat Elcin (Editor), Kluwer Academic-Plenum Press, pp. 129-135, 2003.
175. O'Connell, C., Barker, P.E., Marino, M., McAndrew, P., Atha, D.H., Jaruga, P., Birincioglu, M., Dizdaroglu, M., and Rodriguez, H., "Biomarkers used to detect genetic damage in tissue engineered skin," In: *Advances in Experimental Medicine and Biology*. Y. Murat Elcin (Editor), Kluwer Academic-Plenum Press, pp. 137-145, 2003.
176. Birincioglu, M., Jaruga, P., Chowdhury, G., Rodriguez, H., Dizdaroglu, M. and Gates, K. S., "Mechanisms of DNA base damage by the antitumor agent 3-amino-1,2,4-benzotriazine 1,4-dioxide (Tirapazamine)," *J. Amer. Chem. Soc.* 125, 11607-11615, 2003.
177. Dizdaroglu, M., "Substrate specificities and excision kinetics of DNA glycosylases involved in base-excision repair of oxidative DNA damage," *Mutat. Res.* 531, 109-126, 2003.
178. Reddy, P., Jaruga, P., O'Connor, T., Rodriguez, H. and Dizdaroglu, M., "Overexpression and rapid purification of *Escherichia coli* formamidopyrimidine DNA glycosylase (Fpg)," *Protein Express. Purific.* 34, 126-133, 2004.
179. Rodriguez, H., Jaruga, P., Birincioglu, M., Barker, P., O'Connell, C., and Dizdaroglu, M., "A comparative study of biomarkers of oxidative DNA damage used to detect free radical damage in tissue-engineered skin," *Tissue Engineered Medical Products (TEMPS)*, E. Schutte, G. L. Picciolo and D. Kaplan (Editors), ASTM International, West Conshohocken, PA, pp. 84-89, 2004.
180. Jaruga, P., Theruvathu, J., Dizdaroglu, M. and Brooks, P. J., "Complete release of (5'S)-8,5'-cyclo-2'-deoxyadenosine from dinucleotides, oligodeoxynucleotides and DNA, and direct comparison of its levels in cellular DNA with other oxidatively induced DNA lesions," *Nucleic Acids Res.* 32, e87, 2004.

181. Trzeciak, A. R., Simon, G. N., Jaruga, P., Lohani, A. A., Dizdaroglu, M., and Evans, M. K., "Cellular repair of oxidatively induced DNA base lesions is defective in prostate cancer cell lines, PC-3 and DU-145," *Carcinogenesis* 25, 1359-1370, 2004.
182. Evans, M. D., Dizdaroglu, M. and Cooke, M. S., "Oxidative DNA damage and disease: Induction, repair and significance," *Mutat. Res.* 567, 1-61, 2004.
183. Dizdaroglu, M., (invited paper) "Measurement of oxidative DNA damage by gas chromatography-mass spectrometry and liquid chromatography-mass spectrometry," *Sample Preparation for Hyphenated Analytical Techniques*, Edited by J. M. Rosenfeld, Blackwell Publishing, CRC Press, pp. 39-51, 2004.
184. Rodriguez, H., O'Connell, C., Barker, P. E., Atha, D. H., Jaruga, P., Birincioglu, M., Marino, M., McAndrew, P., and Dizdaroglu, M., "Measurement of DNA biomarkers for the safety of tissue-engineered medical products using artificial skin as a model," *Tissue Engineering* 10, 1332-1345, 2004.
185. Jaruga, P., Birincioglu, M., Rosenquist, T. A., and Dizdaroglu, M., "Mouse NEIL1 protein is specific for excision of 2,6-diamino-4-hydroxy-5-formamidopyrimidine and 4,6-diamino-5-formamidopyrimidine from oxidatively damaged DNA," *Biochemistry* 43, 15909-15914, 2004.
186. Mambo, E., Chatterjee, A., Souza-Pinto, N., Mayard, S., Hogue, B. A., Hoque, M. O., Dizdaroglu, M., Bohr, V. A., and Sidransky, D., "Oxidized guanine lesions and hOGG1 activity in lung cancer," *Oncogene* 24, 4496-4508, 2005.
187. Theruvathu, J. A., Jaruga, P., Nath, R. G., Dizdaroglu, M., and Brooks, P. J., "Polyamines stimulate the formation of mutagenic 1,N²-propano-deoxyguanosine adducts from acetaldehyde," *Nucleic Acids Res.* 33, 3513-3520, 2005.
188. Dizdaroglu, M., "Base-excision repair of oxidative DNA damage by DNA glycosylases," *Mutat. Res.* 591, 45-59, 2005.
189. Hu, J., de Souza-Pinto, N. C., Haraguchi, K., Hogue, B. A., Jaruga, P., Greenberg, M. M., Dizdaroglu, M. and Bohr, V. A., "Repair of Formamidopyrimidines in DNA Involves Different Glycosylases: Role of the OGG1, NTH1 and NEIL1 Enzymes," *J. Biol. Chem.* 280, 40544-40551, 2005.
190. Egler, R., Fernandes, E., Rothermund, K., Sereika, S., Jaruga, P., Dizdaroglu, M., and Prochownik, E. V., "Regulation of reactive oxygen species, DNA damage, and c-Myc function by peroxiredoxin I," *Oncogene* 24, 8038-8050, 2005.
191. Seiple, L., Jaruga, P., Dizdaroglu, M., and Stivers, J. T., "Linking uracil base excision and 5-fluorouracil toxicity in yeast," *Nucleic Acids Res.* 34, 140-151, 2006.

192. McLaren, S. H., Gao, D., Chen, L., Lin, R., Eshleman, J. R., Dawson, V., Trush, M. A., Bohr, V. A., Dizdaroglu, M., Williams, G. M., and Wei, C., "Oxidative Stress and DNA Damage-DNA Repair System in Vascular Smooth Muscle Cells in Artery and Vein Grafts," *J. Cardiothoracic-Renal Res.* 1, 59-72, 2006.
193. Malins, D. C., Anderson, K. M., Stegeman, J. J., Jaruga, P., Green, V. M., Gilman, N. K., , and Dizdaroglu, M., "Biomarkers signal contaminant effects on the organs of English sole (*Parophrys vetulus*) from Puget Sound," *Envir. Health Perspec.* 114, 823-829, 2006.
194. Anderson, K. M., Jaruga, P., Ramsey, C. R., Gilman, N. K., Green, V. M., Rostad, S. W., Emerman, J. T., Dizdaroglu, M., and Malins, D. C., "Structural alterations in breast stromal and epithelial DNA: The influence of 8,5'-cyclo-2'-deoxyadenosine," *Cell Cycle* 5, 1240-1244, 2006.
195. Malins, D. C., Anderson, K. M., Jaruga, P., Ramsey, C. R., Gilman, N. K., Green, W. M., Rostad, S. W., Emerman, J. T. and Dizdaroglu, M., "Oxidative changes in the DNA of stroma and epithelium from the female breast: Potential implications for breast cancer," *Cell Cycle* 5, 1629-1632, 2006.
196. D'Errico, M., Parlanti, E., Teson, M., Miguel Bernardes de Jesus, B., Degan, P., Calcagnile, A., Jaruga, P., BJORAS, M., Crescenzi, M., Pedrini, A. M., Egly, J.-M., Zambruno, G., Stefanini, M., Dizdaroglu, M. and Dogliotti, E., "New functions of XPC in the protection of human skin cells from oxidative damage," *EMBO J.* 25, 4305-4315, 2006.
197. Datta, K., Jaruga, P., Dizdaroglu, M., Newmann, R. D. and Winters, T. A., "Molecular analysis of base damage clustering associated with a site-specific radiation-induced DNA double-strand break," *Radiat. Res.* 166, 767-781, 2006.
198. Nyaga, S. G., Lohani, A., Jaruga, P., Trzeciak, A., Dizdaroglu, M. and Evans, M. K., "Reduced repair of 8-hydroxyguanine in human breast cancer cell lines," *BMC Cancer* 6, 297, 2006.
199. Rodriguez, H., Jaruga, P., Leber, D., Nyaga, S. G., Evans, M. K. and Dizdaroglu, M., "Lymphoblasts of women with BRCA1 mutations are deficient in cellular repair of 8,5'-cyclopurine-2'-deoxynucleosides and 8-hydroxy-2'-deoxyguanosine," *Biochemistry* 46, 2488-2496, 2007.
200. Roy, L., Jaruga, P., Wood, T. G., McCullough, A. K., Dizdaroglu, M. and Lloyd, R. S., "Human polymorphic variants of the NEIL1 DNA glycosylase," *J. Biol. Chem.* 282, 15790-15798, 2007.
201. Nyaga, S. G., Jaruga, P., Lohani, A., Dizdaroglu, M. and Evans, M. K., "Accumulation of oxidatively induced DNA damage in the human breast cancer cell lines," *Cell Cycle* 6, 1472-1478, 2007.
202. D'Errico, M., Parlanti, E., Teson, M., Degan, P., Lemma, T., Calcagnile, A., Iavarone, I., Jaruga, P., Ropolo, M., Pedrini, A. M., Orioli, D., Frosina, G., Zambruno, G., Dizdaroglu, M., Stefanini, M. and Dogliotti, E., "The role of CSA in the response to oxidative DNA damage in human cells," *Oncogene* 26, 4336-4343, 2007.
203. Theruvathu, J. A., Jaruga, P., Dizdaroglu, M. and Brooks, P. J., "The oxidatively induced DNA lesions 8,5'-cyclo-2'-deoxyadenosine and 8-hydroxy-2'-deoxyadenosine are strongly resistant to acid-induced hydrolysis of the glycosidic bond," *Mech. Ageing & Develop.* 128, 494-502, 2007.

204. Kirkali, G., Tunca, M., Genc, S., Jaruga, P. and Dizdaroglu, M., "Oxidative DNA damage in polymorphonuclear leukocytes of patients with familial Mediterranean fever," *Free Radic. Biol. Med.* 44, 386-393, 2008.
205. Jaruga, P. and Dizdaroglu, M., "8,5'-Cyclopurine-2'-deoxynucleosides in DNA: Mechanisms of formation, measurement, repair and biological effects," *DNA Repair* 7, 1413-1425, 2008.
206. Dizdaroglu, M., Kirkali, G. and Jaruga, P., "Formamidopyrimidines in DNA: Mechanisms of formation, repair and biological effects," *Free Radic. Biol. Med.* 45, 1610-1621, 2008.
207. Jaruga, P., Kirkali, G. and Dizdaroglu, M., "Measurement of formamidopyrimidines in DNA," *Free Radic. Biol. Med.* 45, 1601-1609, 2008.
208. Kirkali, G., Souza-Pinto, N. C., Jaruga, P., Bohr, V. A., and Dizdaroglu, M., "Accumulation of (5'S)-8,5'-cyclo-2'-deoxyadenosine in organs of Cockayne syndrome group B gene knockout mice," *DNA Repair* 8, 274-278, 2009.
209. Muftuoglu, M., de Souza-Pinto, N. C., Dogan, A., Aamann, M., Stevsner, T., Rybanska, I., Kirkali, G., Dizdaroglu, M. and Bohr, V. A., "Cockayne syndrome group B protein stimulates repair of formamidopyrimidines by NEIL1 DNA glycosylase," *J. Biol. Chem.* 284, 9270-9279, 2009.
210. Kathe, S. D., Barrantes-Reynolds, R., Jaruga, P., Newton, M. R., Burrows, C. J., Bandaru, V., Dizdaroglu, M., Bond, J. P. and Wallace, S. S., "Plant and fungal Fpg homologs are formamidopyrimidine DNA glycosylases but not 8-oxoguanine DNA glycosylases," *DNA Repair* 8, 643-653, 2009.
211. Kish, A., Kirkali, G., Robinson, C., Rosenblatt, R., Jaruga, P., Dizdaroglu, M. and DiRuggiero, J., "Salt shield: Intracellular salts provide cellular protection against ionizing radiation in the halophilic archaeon, *Halobacterium* sp. str. NRC-1," *Envir. Microbiol.* 11, 1066-1078, 2009.
212. Gokce, G., Ozsarlak-Sozer, G., Oktay, G., Kirkali, G., Jaruga, P., Dizdaroglu, M. and Kerry, Z., "Glutathione depletion by buthionine sulfoximine induces oxidative damage to DNA in organs of rabbits in vivo," *Biochemistry* 48, 4980-4987, 2009.
213. Chan, M. K., Ocampo-Hafalla, M. T., Vartanian, V., Jaruga, P., Kirkali, G., Koenig, K. L., Brown, S., Lloyd, R. S., Dizdaroglu, M. and Teebor, G. W., "Targeted deletion of the genes encoding NTH1 and NEIL1 DNA N-glycosylases reveals the existence of novel carcinogenic oxidative damage to DNA," *DNA Repair* 8, 768-794, 2009.
214. Jaruga, P., Xiao, Y., Nelson, B. C. and Dizdaroglu, M., "Measurement of (5'R)- and (5'S)-8,5'-cyclo-2'-deoxyadenosines in DNA in vivo by liquid chromatography/isotope-dilution tandem mass spectrometry," *Biochem. Biophys. Res. Commun.* 386, 656-660, 2009.
215. Sidorenko, V. S., Grollman, A. P., Jaruga, P., Dizdaroglu, M. and Zharkov, D. O., "Substrate specificity and excision kinetics of natural polymorphic variants and phosphomimetic mutants of human 8-oxoguanine-DNA glycosylase," *FEBS Journal* 276, 5149-5162, 2009.

216. Guo, Y., Bandaru, V., Jaruga, P., Zhao, X., Burrows, C. J., Iwai, S., Dizdaroglu, M., Bond, J. and Wallace, S. S., "The oxidative DNA glycosylases of *Mycobacterium tuberculosis* exhibit different substrate preferences from their *Escherichia coli* counterparts," *DNA Repair* 9, 177-190, 2010.
217. Jaruga, P., Xiao, Y., Vartanian, V., Lloyd, R. S. and Dizdaroglu, M., "Evidence for the involvement of DNA repair enzyme NEIL1 in nucleotide excision repair of (5'R)- and (5'S)-8,5'-cyclo-2'-deoxyadenosines," *Biochemistry* 49, 1053-1055, 2010.
218. Liu, M., Bandaru, V., Bond, J. P., Jaruga, P., Zhao, X., Christov, P. P., Burrows, C. J., Rizzo, C. J., Dizdaroglu, M. and Wallace, S. S., "The mouse ortholog of NEIL3 is a functional DNA glycosylase in vitro and in vivo," *Proc. Natl. Acad. Sci., USA* 107, 4925-4930, 2010.
219. Jaruga, P. and Dizdaroglu, M., "Identification and quantification of (5'R)- and (5'S)-8,5'-cyclo-2'-deoxyadenosines in human urine as putative biomarkers of oxidatively induced damage to DNA," *Biochem. Biophys. Res. Commun.* 397, 48-52, 2010.
220. Robinson, C. K., Webb, K., Kaur, A., Jaruga, P., Dizdaroglu, M., Baliga, N. S., Place, A., and DiRuggiero, J., "A major role for non-enzymatic processes in the resistance of *Halobacterium salinarum* to ionizing radiation," *J. Bacteriol.* 193, 1653-1662, 2011.
221. Reddy, P. T., Jaruga, P., Nelson, B. C., Lowenthal, M. and Dizdaroglu, M. "Stable isotope-labeling of DNA repair proteins, and their purification and characterization," *Prot. Exp. Purif.* 78, 94-101, 2011.
222. Dizdaroglu, M., Reddy, P. T. and Jaruga, P. "Measurement of DNA repair proteins by LC-MS/MS with isotope-dilution using their fully ¹⁵N-labeled analogs as internal standards." *J. Proteome Res.* 10, 3802-3813, 2011.
223. Kirkali, G., Keles, D., Canda, A. E., Terzi, C., Reddy, P. T., Jaruga, P., Dizdaroglu, M. and Oktay, G. "Evidence for upregulated repair of oxidatively induced DNA damage in human colorectal cancer," *DNA Repair* 10, 1114-1120, 2011.
224. Atha, D. H., Wang, H., Petersen, E. J., Cleveland, D., Holbrook, R. D., Jaruga, P., Dizdaroglu, M., Xing, B. and Nelson, B. C. "Copper oxide nanoparticle mediated DNA damage in terrestrial plant models," *Environ. Sci. Technol.* 46, 1819-1827, 2012.
225. Jaruga, P., Rozalski, R., Jawien, A., Migdalski, A., Olinski, R. and Dizdaroglu, M. "DNA damage products (5'R)- and (5'S)-8,5'-cyclo-2'-deoxyadenosines as potential biomarkers in human urine for atherosclerosis," *Biochemistry* 51, 1822-1824, 2012.
226. Dizdaroglu, M. and Jaruga, P. "Mechanisms of free radical-induced damage to DNA," *Free Rad. Res.* 46, 382-419, 2012.
227. Dizdaroglu, M. and Jaruga, P. "Oxidatively induced DNA damage and cancer," *J. Mol. Biomark. Diagn.* S2:002. doi:10.4172/2155-9929.S2-002.

228. Tanaka, M., Jaruga, P., Küpfer, P. A., Leumann, C. J., Dizdaroglu, M., Sonntag, W. E. and Boon Chock, P. "RNA oxidation catalyzed by cytochrome c leads to its depurination and cross-linking, which may facilitate cytochrome c release from mitochondria," *Free Radic. Biol. Med.* 53, 854-862, 2012.

229. Duclos, S., Aller, P., Jaruga, P., Dizdaroglu, M., Wallace, S. S. and Doublié, S. "Structural and biochemical studies of a plant formamidopyrimidine-DNA glycosylase reveal why eukaryotic Fpg glycosylases do not excise 8-oxoguanine," *DNA Repair* 11, 714-725, 2012.

230. Dizdaroglu, M. "Oxidatively induced DNA damage: Mechanisms, repair and disease," *Cancer Lett.* 327, 26-47, 2012.

231. Petersen, E., Tu, X., Dizdaroglu, M., Zheng, M. and Nelson, B. "Protective roles of single-wall carbon nanotubes in ultrasonication-induced DNA base damage," *SMALL* 9, 205-208, 2013.

232. Reddy, P. T., Jaruga, P., Kirkali, G., Tuna, G., Nelson, B. C. and Dizdaroglu, M. "Identification and quantification of human DNA repair protein NEIL1 by liquid chromatography/isotope-dilution tandem mass spectrometry," *J. Proteome Res.* 12, 1049-1061, 2013.

233. Kirkali, G., Jaruga, P., Reddy, P. T., Tona, A., Nelson, B. C., Mengxia Li, M., Wilson III, D. M., Dizdaroglu, M. "Identification and quantification of DNA repair protein apurinic/aprimidinic endonuclease 1 (APE1) in human cells by liquid chromatography/isotope-dilution tandem mass spectrometry," *PLOS ONE* 8(7), e69894, 2013.

234. Jacobs, A. C., Calkins, M. J., Jadhav, A., Dorjsuren, D., Maloney, D., Simeonov, A., Jaruga, P., Dizdaroglu, M., McCullough, A. K., Lloyd, R.S. "Inhibition of DNA glycosylases via small molecule purine analogs," *PLOS ONE* 8(12), e81667, 2013.

235. Dizdaroglu, M. "Clemens von Sonntag and the early history of radiation-induced sugar damage in DNA," *Int. J. Radiat. Biol.* 90, 446-458, 2014.

236. Pang, D., Nico, J. S., Karam, L., Timofeeva, O., Blakely, W. F., Dritschilo, A., Dizdaroglu, M. and Jaruga, P. "Significant disparity in base and sugar damage in DNA resulting from neutron and electron irradiation," *J. Radiat. Res.* doi: 10.1093/jrr/rru059, 2014.