

# BIOGRAPHY

29 June 2012



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**Title and name**

Professor Peter Farmer

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**Nationality**

British

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**Panel**

Contaminants in the Food Chain

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**Education**

BA (Hons), Chemistry, University of Oxford, UK, 1968

D. Phil, Chemistry, University of Oxford, UK, 1970

MA, University of Oxford, UK, 1971

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**Scientific and risk assessment experience**

1. Genotoxicology; mechanisms of carcinogenesis.
  2. Development of biomarkers to determine the dose and biological effect of toxic compounds.
  3. Molecular epidemiology studies relating to environmental carcinogenesis.
  4. Determination of carcinogen adducts with protein and DNA and of oxidative DNA damage.
  5. Development of analytical procedures for biomedical samples; mass spectrometry.
  6. Risk assessment of environmental mutagens and carcinogens.
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**Main scientific publications**

Publications deal mainly with molecular mechanisms of action of carcinogenic and other toxic compounds, and development and application of biomarkers of their dose and effect.

1. Ragin C, Minor A, Agudo A, Farmer P, Garte S, Gonzales C, Kalina I, Matullo G, Popov T, Palli D, Peluso M, Ricceri F, Sram R, Vineis P and Taioli E, 2010. Pooled analysis of studies on DNA adducts and dietary vitamins. *Mutation Research/Reviews in Mutation Research*, 705, 77-82.
2. Marsden DA, Jones DJL, Britton RG, Ognibene T, Ubick E, Johnson G, Farmer PB and Brown K, 2009. Dose response relationships for N7-(2-hydroxyethyl)guanine induced by low dose [14C]-ethylene oxide: evidence for a novel mechanism of endogenous adduct formation. *Cancer Research*, 69, 3052-3059.
3. Farmer PB and Singh R, 2008. Use of DNA adducts to identify human health risk from exposure to hazardous environmental pollutants: the increasing role of mass spectrometry in assessing biologically effective doses of genotoxic carcinogens. *Mutation Research/Reviews in Mutation Research*, 659, 68-76.
4. Singh R, Kaur B, Kalina I, Popov TA, Georgieva T, Garte S, Binkova B, Sram RJ, Taioli E and Farmer PB, 2007. Effects of environmental pollution on endogenous oxidative DNA damage in humans. *Mutation Research*, 620, 71-82.

5. Singh R and Farmer PB, 2006. Liquid chromatography-electrospray mass spectrometry: The future of DNA adduct detection. *Carcinogenesis*, 27, 178-196.
  6. Dybing E, Farmer PB, Andersen M, Fennell TR, Lalljie SPD, Muller DJG, Olin S, Petersen BJ, Schlatter J, Scholz G, Scimeca JA, Slimani N, Tornqvist M, Tuijelaars S and Verger P, 2005. Human exposure and internal dose assessments of acrylamide in food. *Food and Chemical Toxicology*, 43, 365-410.
  7. Farmer PB, 2004. Exposure biomarkers for the study of toxicological impact on carcinogenic processes. In: *Mechanisms of Carcinogenesis. Contributions of Molecular Epidemiology*. Eds Buffler P, Rice J, Baan R, Bird M and Boffetta P. I.A.R.C Scientific Publications No 157, I.A.R.C, Lyon, 71-90.
  8. Guichard Y, Jones GDD and Farmer PB, 2000. Detection of DNA alkylphosphotriesters by 32P-postlabeling: evidence for the non-random detection of phosphotriester lesions *in vivo*. *Cancer Research*, 60, 1276-1282.
  9. Leuratti C, Singh R, Lagneau C, Farmer PB, Plastaras JP, Marnett LJ and Shuker DEG, 1998. Determination of malondialdehyde-induced DNA damage in human tissues using an immunoslot blot assay. *Carcinogenesis*, 19, 1919-1924.
  10. Manchester DK, Weston A, Choi JS, Trivers GE, Fennessey PV, Quintana E, Farmer PB, Mann DL and Harris CC, 1988. Detection of benzo[a]pyrene diol-epoxide-DNA adducts in human placenta. *Proceedings of the National Academy of Sciences of the United States of America*, 85, 9243-9247.
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