

BIOGRAPHY

28 June 2012



Title and name

Dr. Gabriele AQUILINA

Nationality

Italy

Panel

Feed Additives and products or substances used in animal feed (FEEDAP)

Education

Degree in Biology (cum laude), 1981, University of Rome "La Sapienza"

Specialization in Microbiology (cum laude), 1985, University of Rome "La Sapienza"

Scientific and risk assessment experience

- Analysis of the mutagenic activity of chemicals associated with environmental and/or professional exposure, in bacterial and mammalian systems.
 - Study of mechanisms of DNA damage produced by methylating agents and its processing in mammalian cells.
 - Study of DNA Mismatch Repair system and its involvement in the response to exogenous DNA lesions produced by genotoxic agents.
 - Main regulatory and risk assessment appointments: former member of the Advisory Committee on Biocides of the Italian Ministry of Health; member of the Italian Expert Panel responsible for the evaluation of biocidal products (European Directive on biocides 98/8/EC) as expert for genotoxicity and carcinogenicity; Italian national coordinator of the OECD test guidelines programme; Head of the Italian Delegations to the OECD Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology.
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Main scientific publications

Research areas:

Analysis of the genotoxic activity of substances associated with human exposure; DNA methylation damage and relevant processing; role of DNA mismatch repair system in genomic stability and DNA damage response.

Selected publications:

Crebelli R, Aquilina G, Falcone E, Carere A., 1987, Urinary and faecal mutagenicity in Sprague-Dawley rats dosed with the food mutagens quercetin and rutin., Food Chem Toxicol., 25(1), 9-15.

Aquilina G, Biondo R, Dogliotti E, Meuth M, Bignami M., 1992, Expression of the endogenous O6-methylguanine-DNA-methyltransferase protects Chinese hamster ovary cells from spontaneous G:C to A:T transitions. *Cancer Res.*, 52(23), 6471-5.

Branch P, Aquilina G, Bignami M, Karran P., 1993, Defective mismatch binding and a mutator phenotype in cells tolerant to DNA damage. *Nature*, 362(6421):652-4.

Aquilina G, Hess P, Branch P, MacGeoch C, Casciano I, Karran P, Bignami M., 1994, A mismatch recognition defect in colon carcinoma confers DNA microsatellite instability and a mutator phenotype. *Proc Natl Acad Sci U S A*, 91(19), 8905-9.

Aquilina G, Hess P, Fiumicino S, Ceccotti S, Bignami M., 1995, A mutator phenotype characterizes one of two complementation groups in human cells tolerant to methylation damage, *Cancer Res.*, 55(12), 2569-75.

Aquilina G, Ceccotti S, Martinelli S, Hampson R, Bignami M., 1998, N-(2-chloroethyl)-N'-cyclohexyl-N-nitrosourea sensitivity in mismatch repair-defective human cells. *Cancer Res.* 58(1):135-41.

Aquilina G, Ceccotti S, Martinelli S, Soddu S, Crescenzi M, Branch P, Karran P, Bignami M., 2000, Mismatch repair and p53 independently affect sensitivity to N-(2-chloroethyl)-N'-cyclohexyl-N-nitrosourea, *Clin Cancer Res.*, 6(2), 671-80.

Russo MT, Blasi MF, Chiera F, Fortini P, Degan P, Macpherson P, Furuichi M, Nakabeppu Y, Karran P, Aquilina G, Bignami M., 2004, The oxidized deoxynucleoside triphosphate pool is a significant contributor to genetic instability in mismatch repair-deficient cells, *Mol Cell Biol.*, 24(1), 465-74.

Chiera F, Meccia E, Degan P, Aquilina G, Pietraforte D, Minetti M, Lambeth D and Bignami M., 2008, Overexpression of human NOX1 complex induces genome instability in mammalian cells, *Free Radic Biol Med.*, 44(3), 332-42.

Lupari E, Ventura I, Marcon F, Aquilina G, Dogliotti E, Fortini P. Pol kappa partially rescues MMR-dependent cytotoxicity of O(6)-methylguanine. *DNA Repair (Amst)*. 2012 Jun 1; 11 (6): 579-86.
