

CURRICULUM VITAE

PERSONAL INFORMATION

FIRST NAME / SURNAME: GABRIELE AQUILINA

Address: Istituto Superiore di Sanità – Viale Regina Elena 299 – 00161 Roma
ITALIA

Telephon: +39 06 4990 2730

Email: gabriele.aquilina@iss.it

Nationality: Italian

Date of birth: 22 March 1959

Gender: Male

WORK EXPERIENCE

Occupational field: Genetic toxicology: evaluation of the mutagenic activity of chemicals associated with environmental and/or professional human exposure; analysis of the mechanisms of mutagenesis and genotoxic carcinogenicity.

CURRENT PERIOD: from July 2018

Employer: Istituto Superiore di Sanità (ISS)

Position: Senior scientist

Risk assessment activity:

- Italian member of the Committee for Risk Assessment (RAC) of the European Chemicals Agency (ECHA), as expert for human health (current mandate: June 2020 - June 2023)
- Head of the Italian delegation to the Chemicals and Biotechnology Committee (OECD / EHS Programme) (until 2020 named “Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology”).
- National coordinator of the OECD Test Guideline Programme.
- Member of the Expert Panel “Food Additives and Flavourings” (FAF) of the European Food Safety Authority (EFSA): winner of EFSA selection 2018, mandate extended until June 2024.
- Chair of the Working Group “Technological additives” of the Expert Panel “Feed Additives and Products” (FEEDAP) of EFSA.

- In the period October 2018 – January 2019: Chair of the *ad hoc* working group "WG on the reevaluation of Annatto extracts (E 160b)" of the FAF Expert Panel.
- Member of the Working Group on Genotoxicity of EFSA Scientific Committee
- Chair of the Working Group "Evaluation of intrinsic properties and classification of chemicals" established by the ISS following a request of the Italian Ministry of Health and supporting the activity of the Italian Competent Authority concerning the REACH and CLP regulations, as Italian member of RAC expert for human health
- Member of the Working Group of the Italian Competent Authority concerning the REACH and CLP regulations entrusted for the evaluation of chemicals in the frame of the Community rolling action plan (CoRAP), as expert for mutagenesis and carcinogenesis
- Member of the Expert Panel on Biocides of the ISS, responsible for the evaluation of dossiers concerning biocidal products and the drafting of Competent Authority Reports (European Directive on biocides 98/8/EC), as expert for genotoxicity and carcinogenicity.
- Member of the Working Group "Support to ECHA committees of the Italian Ministry of Health.
- Member of the Italian Network PARERE (Preliminary Analysis of Regulatory Relevance) established by the Italian Ministry of Health.
- Inspector for Good Laboratory Practice as expert for mutagenesis and carcinogenesis.

PERIODO: **January 2007 – June 2018**

Employer: Istituto Superiore di Sanità (ISS)

Position: Senior scientist

Risk assessment activity:

- Italian member of the Committee for Risk Assessment (RAC) of ECHA, as expert for human health (from June 2017)
- Head of the Italian delegation to the Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology (OECD / EHS Programme) (from February 2010)
- National coordinator of the OECD Test Guideline Programme (from February 2010)
- Member of the Expert Panel "Feed Additives and Products" (FEEDAP) of EFSA for three consecutive mandates as winner of EFSA selection in 2009, 2012 and 2015
- Member of the Working Group on Genotoxicity of EFSA Scientific Committee (from January 2010)
- Chair of the Working Group "Colouring agents" of the Expert Panel FEEDAP (EFSA) for the mandate 2015-2018
- Chair of the *ad hoc* Working Group "Suilectin" of the Expert Panel FEEDAP (EFSA) (the WG was active in the period March 2011 – October 2014)
- Vice-chair of the Working Groups "Enzymes" and "Coccidiostats and Histomonostats" of the Expert Panel FEEDAP (EFSA) for the mandate 2012-2015
- Member of the Working Group "Evaluation of intrinsic properties and classification of chemicals" (ISS/ Italian Ministry of Health) (from December 2012)
- Member of the Working Group of the Italian Competent Authority concerning the REACH and CLP (Italian Ministry of Health) (from November 2012)

- Member of the Steering group 4 “Manufactured nanomaterials and test guidelines” of the Working party on manufactured nanomaterials (OECD/EHS Programme) (from November 2012)
- Inspector for Good Laboratory Practice as expert for mutagenesis and carcinogenesis (from the appointment by the Italian Ministry of Health in November 2008)

Main experimental and research activities:

- Use of juvenile rodents models as experimental tool for the evaluation of the toxicological risk in childhood (in collaboration with Dr. F Maranghi (ISS) and coworkers) [period 2016-2017]
- Participation in the research project on the role of the trans-lesion DNA polymerase Pol Kappa in the processing of O6-methylguanine by mismatch repair (MMR) system (in collaboration with Dr.P. Fortini (ISS) and coworkers). [period 2010-2012]
- Development of a new experimental model on chronic oxidative stress based on the co-expression of NOX1 gene and its cofactors NOXO1 and NOXA1 in mammalian cells and analysis of the role of MMR in the modulation of genetic instability induced by oxidative agents (in collaboration with Dr. M. Bignami (ISS) and coworkers) [period 2007-2008]
- Collaboration in the project “Il rischio per la salute nei siti inquinati” (Health risk in polluted sites) led by P. Comba, F. Bianchi, I. Iavarone and R. Pirastu: evaluation of the molecular mechanisms of mutagenesis and carcinogenesis of environmental contaminants presents in polluted sites in order to identify the optimal techniques of biomonitoring [2007]

PERIOD: November 1996 - Dicembre 2006

Employer: Istituto Superiore di Sanità (ISS)

Position: Researcher

Risk assessment activity:

- Member of the “Advisory Committee for Biocides” entrusted to give support and advise to the Ministry on the evaluation and authorisation of substances with biocidal activity, as expert for genotoxicity and carcinogenicity (September 2003 - March 2008)
- Member of the WG on biocides of the ISS, entrusted to evaluate the dossiers concerning biocidal products and to draft the Competent Authority Reports (EU Dir. 98/8/EC), as expert for genotoxicity and carcinogenicity (from June 2006)

Main experimental and research activities:

- Development of a new assay based on human cells in culture for the evaluation of the pathogenic effects associated with alteration of the MMR gene MLH1 [period 2005-2006]

- Analysis of the role of MMR in the prevention of the mutagenic DNA damage caused by the incorporation of oxidised deoxynucleotides [period 2002-2004]
- Analysis of the role of MMR in combination with the expression of the protein p53 in the modulation of the resistance of human cancer cells to chemotherapeutic cross-linking agents (e.g. cisplatin and nitroso-ureas) [period 1997-2000]
- Investigation on the effects induced by methylating agents in the progression of the cell cycle and on their modulation by MMR [period 1998-1999]
- Studies on the hypersensitivity to cross-linking chemotherapeutic agents in cancer cells defective in MMR system in the perspective of a possible therapeutic use [period 1996-1999]

PERIODO: **July 1981 - November 1996**

Employer: Istituto Superiore di Sanità (ISS)

Position: from December 1986: research assistant
 formerly: scholarship and grant holder

Main experimental and research activities:

- In 1995, visiting scientist in the laboratory of Dr. Malgorzata Zdzieniecka (Department of Radiation Genetics and Chemical Mutagenesis, Leiden University, NL), in the frame of the European program "DNA Repair Network": use of "microcell fusion" technique for the identification of chromosomes complementing MMR defects.
- Study of MMR system and its role in the processing of exogenous DNA lesions produced by genotoxic agents, relevant as environmental contaminants or used in cancer chemotherapy, e.g. methylating agents and crosslinker [periodo 1991-1993].
- Study of the association between MMR defects and Hereditary Non-Polyposis Colorectal Carcinoma (HNPCC), a human syndrome causing susceptibility to colon cancer [period 1993-1994]
- In 1991, visiting scientist in the Imperial Cancer Research Fund, Clare Hall Laboratories, UK, in the laboratory of Dr. Mark Meuth, in the frame of the project, "Molecular bases of resistance to alkylating agents" (agreement Italian National Research Council (CNR) / British Royal Society).
- Study of the mechanisms of DNA damage produced by methylating agents and its processing in mammalian cells [period 1987-1991].
- Analysis of the mutagenic activity of chemicals associated with environmental and/or professional exposure in bacterial (bacterial reverse mutation assay in Salmonella typhimurium and Escherichia coli) and mammalian systems (HPRT assay in V79 Chinese hamster cells) [periodo 1981-1987]

EDUCATION AND TRAINING

Period: October 1981 - July 1985

Title awarded: Specialization in Microbiology, *cum laude*

Principal subjects: General microbiology. Medical microbiology. Industrial and scientific applications of microbiological systems. Genetics of microorganisms

Organisation: University of Rome “La Sapienza” Scuola di specializzazione in Microbiologia

Title of the experimental thesis: Use of the bacterial reverse mutation assay on *Salmonella typhimurium* (Ames test) for the assessment of the mutagenic activity of rubber chemicals.

Period: November 1977 - July 1981

Title awarded: Degree in Biology, *cum laude*

Principal subjects: Principles of mathematics and physics. Statistics. General and inorganic chemistry. Organic chemistry. Biochemistry. Cytology, histology and embryology. General zoology. General Botany. Microbiology and virology. Molecular biology. Genetics. Genetics of microorganisms

Organisation: University of Rome “La Sapienza” Scuola di specializzazione in Microbiologia

Title of the experimental thesis: Assessment of the mutagenic activity of the organo-phosphoric pesticides Dichlorvos and Trichlorfon in the Chinese hamster cell line V79.

PERSONAL SKILLS AND COMPETENCES

Mother tongue: Italian

Other languages: English: excellent reading, writing and verbal skills.

SCIENTIFIC PUBLICATIONS

Risk Assessment and Scientific Advice papers

Co-author of over 500 scientific opinions of EFSA published on EFSA Journal, 24 as rapporteur, 54 as expert of genotoxicity, 29 as chair of the working group encharged for the drafting of the opinion. Co-author of 7 EFSA guidance papers, one as co-rapporteur (<http://www.efsa.europa.eu/en/publications>).

Research papers

Co-author of 46 scientific international publications, 16 as first author, 17 as supervisor of a junior scientist.

