

EUROPASS
CURRICULUM VITAE



PERSONAL INFORMATION

First name /Surname

ANTONELLA FEDERICA / TESTA

Address

WORK PLACE: ENEA Casaccia Research Center, Laboratory of Biosafety and Risk Assessment, Division of Health Protection Technologies

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Nationality

Italian

Date of birth

11/15/1961

WORK

EXPERIENCE

September 2015 - today

Senior researcher at ENEA Casaccia Research Center (Rome), Laboratory of Biosafety and Risk Assessment, Division of Health Protection Technologies. Main activities related to Radiobiology, Cytogenetics, Biological Dosimetry

2009 - September 2015

Senior researcher at ENEA Casaccia Research Center (Rome), Unit of Radiation Biology and Human Health. Main activities related to Radiobiology, Molecular Epidemiology Cytogenetics, Biological Dosimetry

1990-2009

Researcher at ENEA Casaccia Research Center (Rome), Section of Toxicology and Biomedical Sciences. Main activities in Cytogenetics, Human Biomonitoring, Environmental Mutagenesis

- 1988-1990 **Temporary researcher** (ex art-36) at National Research Council (C.N.R), Institute of Genetics, University "La Sapienza" of Rome. Experimental activities related to Environmental Mutagenesis and Cytogenetics
- 1987-1988 **Research Fellow** from the "Accademia dei Lincei" at "la Tuscia" University, Viterbo. Experimental activities related to the genetic improvements of cultured species
- 1986 **Research Fellow** from the 'Istituto Veneto di Lettere, Scienze ed Arti', Institute of Genetic, "La Sapienza" University of Rome. Experimental activities related to Environmental Mutagenesis and Cytogenetics

EDUCATION AND TRAINING

- 1986 **Degree** in Biological Sciences (final votation 110/110), University "La Sapienza" of Rome
- 1987 **Professional habilitation in Biology**

PERSONAL SKILLS AND COMPETENCES

Radiobiologist; Expert in Biological Dosimetry, Genetics, Cytogenetics, Mutagenesis and Molecular Epidemiology

Technical skills and Competences

Main research activities focused on:

1. Radiobiology (focused on the genetic effects induced by ionizing radiation)
2. Biological dosimetry (retrospective dose reconstruction for population accidentally exposed to radiation in case of nuclear incidents)
3. DNA damage repair pathways
4. Molecular epidemiology related to individual radiosensitivity, occupational exposures and cancer development

ADDITIONAL INFORMATION

Main related Projects:

- Responsible for ENEA of the coordinated action **RENEB**, "Realizing the European Network in Biodosimetry" (<http://reneb.eu>) within the EU FP-7 Fission Project 2012 aiming to create a sustainable network in Biological Dosimetry that involves a large number of experienced laboratories throughout the EU acting in collaboration in case of a large-scale radiological emergency
- Participant to the **EU-EMRP (EU FP-7)** Joint Research Project "**BioQuaRT**" (Biologically weighted Quantities in RadioTherapy) (<http://www.ptb.de/emrp/bioquart.html>) (2012-2015) within the WP Radiobiology aiming to develop measurement techniques for characterizing charged particle track structure on different length scales, and to correlate at the cellular level the track structure properties with the biological effects of radiation
- Participant to the International Project **INTAS** (L.n.449/1997) "**Assessment of the radiological consequences for man and environment from nuclear tests in Kazakhstan**" (from 1995 to 1997) performing retrospective biodosimetry studies by cytogenetics on Kazakhstan population

- Participant (from 1992 to 1998) to **International cooperation Projects** for Retrospective Biodosimetry studies on subjects living in contaminated areas after **Chernobyl** and **Southern Urals accidents**
- Participant to the International **Project V Programme EU “Perform B** “In vitro and in vivo replication studies related to mobile telephones and base station. Key action Environment and Health” (2001-2003)
- Participant to the **TOP-IMPLART** (Oncological Therapy with Protons; Intensity Modulated Proton Linear Accelerator for RadioTherapy) National Project focused on proton therapy biological assessment (from 2013-today)
- Participant to several human biomonitoring studies within the national **Ministry of Health** by using cytogenetic methods for cancer risk assessment (1995-2006)
- Participant to National Projects (**MURST/MIUR**) focused on studies related to the biological effects of electromagnetic fields (1998-2005)

Membership of professional bodies

Member of the International **Biodosimetry Network** (WHO) **BioDoseNet** (<http://www.biodosenet.org/>)

Member of the European Radiation Dosimetry Group (**EURADOS**), Working Group 10 in “Retrospective Dosimetry” (<http://www.eurados.org/>)

Member of the European Radiation Research Society (**ERRS**)

Member of the Italian Society of Radiation Research (**SIRR**)

Member of the Italian Federation Radiation Research (**FIRR**)

Member of the Italian Society of Environmental Mutagenesis (**SIMA**)

Member of the European Environmental Mutagen Society (**EEMS**)

Academic Activities

- 2006-2009 **Contract Professor** in *Applied Biology*, Faculty of Medicine, “Università Tor Vergata” of Rome
- 2001-2007 **Contract Professor** in *Medical Genetics*, Faculty of Medicine, University “La Sapienza” of Rome (Polo La Tuscia University of Viterbo)
- 2003-2007 **Contract Professor** in *Applied Biology*, Faculty of Medicine, University “La Sapienza” of Rome (Polo La Tuscia University of Viterbo)
- 2014-15 **Teaching assignment** for the “Advanced course in Medical Radiation Protection”
- Chair of the practical and theoretical course on “Biological dosimetry” organized by ENEA Casaccia (November 2012)

Mother tongue

ITALIAN

LANGUAGES

OTHER

ENGLISH

Understanding

very good

Speaking

very good

Writing

very good

SOCIAL SKILLS AND
COMPETENCES

Coordinator of a Radiobiology team

Experienced working at International dimension (see the list of **EU Projects**)

Expert of the **European Parliament**, for **Safety and Security** technologies (Tender Lot 9)

Coordinator of a task group (T10.7) within The European Radiation Dosimetry Group (**EURADOS**)

Selected member of International Commission on Radiation Units and Measurements Committee (**ICRU**)

Tutor of PhD students

ORGANISATIONAL SKILLS AND
COMPETENCES

Organizer of international conferences, seminars and workshops

ARTISTIC SKILLS AND
COMPETENCES

Piano player

COMPUTER SKILLS AND
COMPETENCES

Competent with most of Microsoft Office Programmes

Publications on International Journals

- Testa A, Ballarini F, Giesen U, Gil OM, Carante MP, Tello J, Langner F, Rabus H, Palma V, Pinto M, Patrono C. Analysis of Radiation-Induced Chromosomal Aberrations on a Cell-by-Cell Basis after Alpha-Particle Microbeam Irradiation: Experimental Data and Simulations. Radiat Res. 2018 Apr 6. doi: 10.1667/RR15005.1.

- Pietraforte D, Paulicelli E, Patrono C, Gambardella L, Scorza G, Testa A, Fattibene P. Protein oxidative damage and redox imbalance induced by ionising radiation in CHO cells. *Free Radic Res.* 2018 Mar 16;1-15. doi: 10.1080/10715762.2018.1446529.
- Colamartino M, Duranti G, Ceci R, Sabatini S, Testa A, Cozzi R. (2017). A multi-biomarker analysis of the antioxidant efficacy of Parkinson's disease therapy. *TOXICOLOGY IN VITRO*, ISSN: 0887-2333, doi: 10.1016/j.tiv.2017.10.020
- Ainsbury E. et al. "Integration of new biological and physical retrospective dosimetry methods into EU emergency response plans - joint RENEb and EURADOS inter-laboratory comparisons" *Int J Radiat Biol.* 2017 Jan;93(1):99-109. doi: 10.1080/09553002.2016.1206233. Epub 2016 July 20
- Kulka U. et al. "RENEb - Running the European Network of biological dosimetry and physical retrospective dosimetry " *Int J Radiat Biol.* 2017 Jan;93(1):2-14. doi: 10.1080/09553002.2016.1230239. Epub 2016 Oct 6
- Oestreicher U .et al. "RENEb intercomparisons applying the conventional Dicentric Chromosome Assay (DCA)" *Int J Radiat Biol.* 2017 Jan;93(1):20-29. doi: 10.1080/09553002.2016.1233370. Epub 2016 Oct 21.
- Depuydt J. et al. "RENEb intercomparison exercises analyzing micronuclei (Cytokinesis-block Micronucleus Assay)" *Int J Radiat Biol.* 2017 Jan;93(1):36-47. doi: 10.1080/09553002.2016.1206231. Epub 2016 Aug 15.
- Monteiro Gil O. et al. "Capabilities of the RENEb network for research and large scale radiological and nuclear emergency situations" *Int J Radiat Biol.* 2017 Jan;93(1):136-141. doi: 10.1080/09553002.2016.1227107. Epub 2016 Oct 4
- Romm H. et al. "Web based scoring is useful for validation and harmonisation of scoring criteria within RENEb" *Int J Radiat Biol.* 2017 Jan;93(1):110-117. doi: 10.1080/09553002.2016.1206228. Epub 2016 Aug
- Basso E, Regazzo G, Fiore M, Palma V, Traversi G, Testa A, Degrossi F, Cozzi R. Resveratrol affects DNA damage induced by ionizing radiation in human lymphocytes in vitro. *Mutat Res Genet Toxicol Environ Mutagen.* 2016 Aug;806:40-6. doi: 10.1016/j.mrgentox. 2016.07.005. Epub 2016 Jul 11.
- Patrono C, Monteiro Gil O, Giesen U, Langner F, Pinto M, Rabus H, Testa A. 'BioQuaRT' project: Design of a novel in situ protocol for the simultaneous visualisation of chromosomal aberrations and micronuclei after irradiation at microbeam facilities. *Radiat Prot Dosimetry.* 2015 Sep;166(1-4):197-9. doi: 10.1093/rpd/ncv160. Epub 2015 Apr 15
- Colamartino M, Santoro M, Duranti G, Sabatini S, Ceci R, Testa A, Padua L, Cozzi R. Evaluation of levodopa and carbidopa antioxidant activity in normal human lymphocytes in vitro: implication for oxidative stress in Parkinson's disease. *Neurotox Res.* 2015 Feb;27(2):106-17. doi: 10.1007/s12640-014-9495-7. Epub 2014 Oct 30.
- Patrono C, Sterpone S, Testa A, Cozzi R. Polymorphisms in base excision repair genes: Breast cancer risk and individual radiosensitivity. *World J Clin Oncol.* 2014 Dec 10;5(5):874-82. doi: 10.5306/wjco.v5.i5.874. Review.
- Kulka U, Ainsbury L, Atkinson M, Barnard S, Smith R, Barquinero JF, Barrios L, Bassinet C, Beinke C, Cucu A, Darroudi F, Fattibene P, Bortolin E, Monaca SD, Gil O, Gregoire E,

Hadjidekova V, Haghdoost S, Hatzi V, Hempel W, Herranz R, Jaworska A, Lindholm C, Lumniczky K, M'kacher R, Mörtl S, Montoro A, Moquet J, Moreno M, Noditi M, Ogbazghi A, Oestreicher U, Palitti F, Pantelias G, Popescu I, Prieto MJ, Roch-Lefevre S, Roessler U, Romm H, Rothkamm K, Sabatier L, Sebastia N, Sommer S, Terzoudi G, Testa A, Thierens H, Tromprier F, Turai I, Vandevoorde C, Vaz P, Voisin P, Vral A, Ugletveit F, Wieser A, Woda C, Wojcik A. Realising the European network of biodosimetry: RENEB-status quo. *Radiat Prot Dosimetry*. 2015 Apr;164(1-2):42-5. doi: 10.1093/rpd/ncu266. Epub 2014 Sep 9

- Cornetta T, Patrono C, Terrenato I, De Nigris F, Bentivoglio AR, Testa A, Palma V, Poggioli T, Padua L, Cozzi R. Epidemiological, clinical, and molecular study of a cohort of Italian Parkinson disease patients: association with glutathione-S-transferase and DNA repair gene polymorphisms. *Cell Mol Neurobiol*. (2013) Jul;33(5):673-80. doi: 10.1007/s10571-013-9933-8. Epub 2013 Apr 4
- Kulka U, Ainsbury L, Atkinson M, Barquinero JF, Barrios L, Beinke C, Bognar G, Cucu A, Darroudi F, Fattibene P, Gil O, Gregoire E, Hadjidekova V, Haghdoost S, Herranz R, Jaworska A, Lindholm C, M'kacher R, Mörtl S, Montoro A, Moquet J, Moreno M, Ogbazghi A, Oestreicher U, Palitti F, Pantelias G, Popescu I, Prieto MJ, Romm H, Rothkamm K, Sabatier L, Sommer S, Terzoudi G, Testa A, Thierens H, Tromprier F, Turai I, Vandersickel V, Vaz P, Voisin P, Vral A, Ugletveit F, Woda C, Wojcik REALIZING THE EUROPEAN NETWORK IN BIODOSIMETRY (RENEB). *Radiation Protection Dosimetry* (2012), ISSN: 0144-8
- Colamartino M, Padua L, Meneghini C, Leone S, Cornetta T, Testa A, Cozzi R (2012). Protective effects of L-dopa and carbidopa combined treatments on human catecholaminergic. *DNA AND CELL BIOLOGY*, ISSN: 1044-5498
- Basso E, Cevoli C, Papacchini M, Tranfo G, Mansi A, Testa A “Cytogenetic biomonitoring on a group of petroleum refinery workers” *Environ Mol Mutagen* (2011) 52(6), 440-7 PMID:21370282
- Silvia Sterpone, Tommaso Cornetta, Luca Padua, Valeria Mastellone, Daniela Giammarino, Antonella Testa, Donatella Tirindelli , Renata Cozzi, Vittorio Donato “DNA repair capacity and acute radiotherapy adverse effects in Italian breast cancer patients” *Mutation Res* (2010) 684, 43–48 PMID:19962393
- Silvia Sterpone, Valeria Mastellone, Luca Padua, Flavia Novelli, Clarice Patrono Tommaso Cornetta, Daniela Giammarino, Vittorio Donato, Antonella Testa, Renata Cozzi "Single-nucleotide polymorphisms in BER and HRR genes, XRCC1 haplotypes and breast cancer risk in Caucasian women” *J Cancer Res Clin Oncol* (2010) 136, 631–636 PMID:20140625
- Selena Palma, Flavia Novelli, Luca Padua, Aldo Venuti, Grazia Prignano, Luciano Mariani, Renata Cozzi, Donatella Tirindelli, Antonella Testa “Interaction between glutathione-S-transferase polymorphisms, smoking habit, and HPV infection in cervical cancer risk” *J Cancer Res Clin Oncol* (2010) 136, 1101-1109 PMID:20069434
- Poggioli T, Sterpone S, Palma S, Cozzi R and Testa A “G0 and G2 Chromosomal assays in the evaluation of radiosensitivity in a cohort of Italian breast cancer patients” *J. Radiat. Res* (2010) 51, 615-619 PMID: 20921829
- Cornetta T, Palma S., Aprile I., Padua L., Tonali P, Testa A, Cozzi R. “Levodopa therapy reduces DNA damage in peripheral blood cells of patients with Parkinson's disease” *Cell Biol Toxicol* (2009) 25, 321–330 PMID:18523852

- Silvia Sterpone, Tommaso Cornetta, Adriano Angioni, Ersilia Fiscarelli, Vincenzina Lucidi, Antonella Testa, and Renata Cozzi “DNA damage and related modifier genes in Italian Cystic fibrosis patients” *Biol Res* (2009) 42, 477-486 PMID:20140303
- Cornetta T, Padua L, Testa A, Ievoli E, Festa F, Tranfo G, Baccelliere L, Cozzi R V “Molecular biomonitoring of a population of nurses handling antineoplastic drugs” *Mutat Res* (2008) 638(1-2),75-82 PMID:17928012
- Testa A., Giachelia M, Palma S et al. “Occupational exposure to antineoplastic agents induces a high level of chromosome damage. Lack of an effect of GST Polymorphisms” *Toxicol and Applied Pharmacol* (2007) 223, 46-45 PMID:17631926
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- Cornetta T, Festa F, Testa A, Cozzi R (2006) “DNA damage repair and genetic polymorphisms: assessment of individual sensitivity and repair capacity” *Int J Radiat Oncol Biol Phys* (2006) 66: 537-545 PMID:1696599
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- Testa A, Festa F, Ranaldi R, Giachelia M, Tirindelli D, De Marco A, Owczarek M, Guidotti M & Cozzi R. “A Multi-Biomarker analysis of DNA damage in automobile painters” *Environ Mol Mutagen* (2005) 46, 182-188 PMID:16206220
- Stronati L. , Testa A. , Villani P. , Marino C., Lovisolò G.A. , Conti D. , Russo F. , Fresegna A.M. and Cordelli E. “Absence of genotoxicity in human blood cells exposed to 50 Hz Magnetic fields as assessed by comet assay, chromosome aberration, micronucleus and sister chromatid exchange analyses” *Bioelectromagnetics* (2004) 25, 41-48 PMID:14696052
- Testa A., E. Cordelli , L Stronati, C. Marino, GA Lovisolò, Fresegna AM , Conti D., Villani P. "Evaluation of genotoxic effect of low level 50Hz magnetic fields on human blood cells using different cytogenetic assays," *Bioelectromagnetics* (2004) 25(8), 613-9 PMID:15515032
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- Gastberger M, A.Hubmer, F. Steinhausler, H.Lettner, M. Spano and A.Testa “Plutonium in soil from Dolon near the Semipalatinsk nuclear test site” *Radiochimica Acta* 89, 371-375 (2001)
- Stronati L., M.Durante, G.Gensabella, G.F.Grossi, M.Pugliese, P.Scampoli, A.Sgura, A.Testa and C.Tanzarella “Calibration curves for biological dosimetry by fluorescence in situ hybridization” *Radiation Protection Dosimetry* (2001) 94 (4), 335-345 PMID:11499437

- Testa A., L.Padovani, F.Mauro, P.Anzidei, M.Appolloni and L.Stronati “Cytogenetic study on children living in Southern Urals contaminated areas” (nuclear incidents 1948-1967) *Mutation Res* (1998) 401, 193-197 PMID:9639704
- Padovani L., L.Stronati, F.Mauro, A.Testa, M.Appolloni, P.Anzidei, D.Caporossi, B.Tedeschi and P.Vernole “Cytogenetic effects in lymphocytes from children exposed to radiation fall-out after the Chernobyl accident” *Mutation Res* (1997) 395, 249-254 PMID:9465937
- De Marco A., C.De Simone, M.Raglione, A.Testa, S.Trinca “Importance of the type of soil for the induction of micronuclei and growth of primary root tips of *Vicia faba* treated with the herbicides Atrazine, Glyphosate and Maleic Hydrazide” *Mutation Res* (1992) 279, 9-13 PMID:1374535
- De Marco A., P.Boccardi, C.De Simone, A.Piccolo, M.Raglione, A.Testa, S.Trinca “Induction of micronuclei in *Vicia faba* root tips treated in different soils with herbicide Alachlor” *Mutation Research* (1990) 241 (1),1-6 PMID:2333081
- De Marco A., S.Paglialunga, M.Rizzoni, A.Testa, S.Trinca “Inducing of micronuclei in *Vicia faba* root tips treated with heavy metals Cadmium and Chromium in the presence of NTA” *Mutation Research* (1988) 206, 311-315 PMID:3200255