

Curriculum Vitae

Last name, First name: Testai Emanuela

Gender: F

Nationality/ies: Italian

Overall Scientific Expertise:

The expertise of Dr. Testai is focused on mammalian toxicology and in risk assessment for human health, with specific interest on toxicokinetics and xenobiotic metabolism, molecular mechanisms of toxicity, metabolic biomarkers of individual susceptibility, in vitro toxicology, alternative methods and NAMs. She has been involved in research and regulatory activities as well as in teaching in the area of human risk assessment, associated to exposure to natural and synthetic chemicals with different field of application (plant protection products, biocides, environmental pollutants, persistent compounds, industrial and consumer products, cyanotoxins; food contaminants). Scientific Leader of National/EU Research Projects on metabolism and toxicity of xenobiotics.

Professional Experience

Years employed from – to	Title of position	Employer – name and location	Areas of professional specialisation [▲]
2017-today	Executive Researcher (permanent staff) Head of the Unit (since 2022)	Istituto Superiore di Sanità Rome –Italy Department of Environment and Health Mechanisms, Biomarkers and Models Unit	Human health risk assessment, toxicokinetics (ADME), alternative methods, gene-environment interaction, cyanotoxins, mechanism of toxicity, mammalian general toxicology of natural and man-man contaminants.
2007-2017	Executive Researcher (Dirigente di Ricerca) (permanent staff) Head of the Unit (2009-2017)	Istituto Superiore di Sanità Rome –Italy Department of Environment and Primary Prevention Mechanism of Toxicity Unit	Toxicology (mammalian general toxicology of natural and man-man contaminants, mechanism of toxicity, toxicokinetics (ADME), alternative methods, gene-environment interaction, cyanotoxins, human health risk assessment)
1994-2007	Researcher (permanent staff)	Istituto Superiore di Sanità Rome –Italy 1) Department of Environment and Primary Prevention (from 2004) 2) Comparative Toxicology and Ecotoxicology Lab. Biochemical	Toxicology (xenobiotic metabolism, mechanism of toxicity, toxicokinetics, individual susceptibility, in vitro toxicology, human health risk assessment)

		toxicology Unit (1994-2004)	
1985-1993	Junior Researcher (permanent staff)	Istituto Superiore di Sanità Rome –Italy Comparative Toxicology and Ecotoxicology Lab. Biochemical toxicology Unit	Toxicology (xenobiotic biotransformation, enzymology of drug-metabolizing systems, species-specificity of toxic effects)
1982-1985	Grant fellow	Istituto Superiore di Sanità Rome –Italy Toxicology Lab. Biochemical toxicology Unit	Biochemistry (biotransformation, enzymology of drug-metabolizing systems)
1979-1981	Undergraduated student	Istituto di Mutagenesi e Differenziamento CNR Pisa- Italy	Biochemistry (Biotransformation, enzymology of drug-metabolizing systems)

Educational Background

Year	Degree awarded	Educational Institution – name and location	Areas of educational specialisation
1981	Laurea (summa cum laude)	University of Pisa – Faculty of Biological Sciences Italy	Biology (biochemistry/enzymology)

Memberships in Scientific Advisory Bodies/Committees/Panels:

- Scientific Committee on health, Environmental and Emerging Risks (SCHEER) EU- DG Sante (2016-today) (Appointed as vice chair).
- Scientific Committee on Emerging and Newly Identified Health Risk (SCENIHR) EU – DG-Sanco: 2013-2016 (Appointed as vice chair).
- Scientific Committee on Health and Environmental Risk (SCHER) EU – DG-Sanco: 2004-2008; 2009-2012.
- FLAVIS Working Group (EFSA) on Flavouring Risk Evaluation (previous SCOOP/FLAV) (2001-2007)
- Member of *ad hoc* WG at EFSA for the preparation of specific opinions (e.g. BPA in food, Document on endocrine disruptors, Mixture toxicity, Pesticides in vitro comparative metabolism studies; phatlates)
- OECD Test Guidelines Program (since 1998);
- National Committee for Plant Protection Products at the Italian Ministry of Health (since 2000)
- Working Group for the Risk Assessment of Existing Chemicals - EU Reg. 73/93/CE (1998-2008)
- National Committee for Biocides at the Italian Ministry of Health (2003-2006):
- Working Group of the European Commission (DG JRC) for the Revision of the TGD on Risk Assessment (2000-2002).
- Italian National Toxicology Committee (1995-1997);
- WHO Chemical Working Group in charge of preparing the Background Documents for Drinking Water Guidelines (2017-today)

- Scientific Committee of ISPRA (Istituto Superiore per la Protezione e la Ricerca Ambientale) (2022-today)

Memberships in Learned Societies (if any):

Presently member in:

- International Society for the Study of Xenobiotics ISSX Member since 1992; Councillor elect (1998-2001; 2006-2009)
- Società Italiana di Tossicologia SITOX Member since 1984; Member elect of the Executive Board (2009-2011; 2012-2014; 2018-today)
- Italian Association of In Vitro Toxicology CELLTOX Member since 1995; Secretary (1996-1998) and President (1999-2001)
- European Society of in vitro Toxicology ESTIV: Member since 1998; Executive Board Member (2000-2002) and Vice-president (2002-2004)

Memberships in Editorial Boards (if any):

Drug Metabolism Reviews (2002-today) and Toxicology in vitro (2005- today)

Co- Editor of Toxicology Letters since January 2021

Reviewer's activity for: *Life Science; Environmental Toxicology and Pharmacology, Toxicology in Vitro, Pharmacological Research, Journal of Biochemical and Molecular Toxicology, Science of Total Environment, Drug Metabolism and Disposition, Food and Chemical Toxicology, Analytica Chimica Acta, Asia-Pacific Journal of Clinical Nutrition, Toxicology, Environmental Toxicology, Toxicology Letters, Environmental Science and Technology; Water Research, Archives of Toxicology, Critical Reviews in Toxicology, Chemico-biological Interactions .*

List of Publications:

Peer-reviewed international journals and book chapters	151
Other publications	72
Congress Communications:	192
Technical Reports and opinions *	>500

* (ISS technical reports and opinions to answer to requests from the Ministry of Health, Regions or other Agencies of the National Health System; technical reports and opinions for the above mentioned committees; Monographs for inclusion in Annex I to EU Regulations on Plant Protection Products and Biocides)

H index (Scopus): 38

H Index (Scholar): 44 (i10-index: 106)

Ten representative publications :

1. S. Adler, D. Basketter, S. Creton, O. Pelkonen, J. van Benthem, V. Zuang, **E. Testai**, et al. Alternative (non-animal) methods for cosmetics testing: Current status and future prospects – 2010, *Arch. Toxicol.* **85**, 367-485 (2011).
2. N.I. Kramer, E. Di Consiglio, B.J. Blauboer, **E. Testai** Biokinetics in repeated-dosing *in vitro* drug toxicity studies *Toxicol. In Vitro* **30**, 217–224 (2015).
3. **E. Testai**, S. Scardala, S.Vichi, F.M. Buratti and E. Funari Risk to human health associated with the environmental occurrence of cyanobacterial neurotoxic alkaloids anatoxins and saxitoxins *Critical Rev. Toxicol.* Published online 26 February 2016 (2016).
4. F.M. Buratti, M. Manganelli, S. Vichi, M. Stefanelli, S. Scardala, **E. Testai**, E. Funari. Cyanotoxins: producing organisms, occurrence, toxicity, mechanism of action, and human

- health toxicological risk evaluation. *Archives of Toxicology* **91**:1049–1130 (2017) doi: 10.1007/s00204-016-1913-6.
5. More S.J., Hardy A., Bampidis V., Benford D., Hougaard Bennekou S., Bragard C., Boesten J., Halldorsson T.I., Hernández-Jerez A.F., Jeger M.J., Knutsen H.K., Koutsoumanis K.P., Naegeli H., Noteborn H., Ockleford C., Ricci A., Rychen G., Schlatter J.R., Silano V., Nielsen S.S., Schrenk D., Solecki R., Turck D., Younes M., Benfenati E., Castle L., Cedergreen N., Laskowski R., Leblanc J.C., Kortenkamp A., Ragas A., Posthuma L., Svendsen C., **Testai E.**, Dujardin B., Kass G.E.N., Manini P., Zare Jeddi M., Dorne J.-L.C.M., Hogstrand C. Guidance on harmonised methodologies for human health, animal health and ecological risk assessment of combined exposure to multiple chemicals EFSA Journal Open Access Volume 17, Issue 3 Article number e05634 (2019)
 6. A.M. Ingelido, A. Abballe, S. Gemma, E. Dellatte, N. Iacovella, G. De Angelis, V. Marra, F. Russo, M. Vazzoler, **E. Testai**, E. De Felip, Serum concentrations of perfluorinated alkyl substances in farmers living in areas affected by water contamination in the Veneto Region (Northern Italy) *Environment International* Volume **136**, Article number 105435 (2020) <https://doi.org/10.1016/j.envint.2019.105435>
 7. N. Santori, F.M. Buratti, J-L.C.M. Dorne and **E. Testai**, Phosmet bioactivation by isoform-specific cytochrome P450s in human hepatic and gut samples and metabolic interaction with chlorpyrifos *Food and Chemical Toxicology* **143**, 111514 (1-9) (2020) <https://doi.org/10.1016/j.fct.2020.111514>
 8. T. Gouin, D. Cunliffe, J. De France, J. Fawell, P. Jarvis, A.A. Koelmans, P. Marsden, **E. Testai**, M. Asami, R. Bevan, R. Carrier, J. Cotruvo, A. Eckhardt, C.N.Ong Correspondence : Clarifying the absence of evidence regarding human health risks to microplastic particles in drinking-water: High quality robust data wanted *Environment International* **7**:106141 (2020) <https://doi.org/10.1016/j.envint.2020.106141>
 9. F.M. Buratti, K. Darney, S. Vichi, L. Turco, E. Di Consiglio, L. Lautz, C. Béchaux, J-L.C.M. Dorne, **E. Testai** Human variability in Glutathione-S-Transferase activities, tissue distribution and major polymorphic variants: meta-analysis and implication for chemical risk assessment *Toxicology Letters* **337**, 78–90 (2021) <http://dx.doi.org/10.1016/j.toxlet.2020.11.007>
 10. Turco L., Santori N., Buratti F.M., Dorne J-L., **Testai E.** Congeners-specific intestinal absorption of microcystins in an in vitro 3D human intestinal epithelium: the role of influx/efflux transporters *Frontiers in toxicology* **4**:883063 Sec.InVitroToxicology (2022) <https://doi.org/10.3389/ftox.2022.883063>

Rome, January 27, 2023

Emmanuel Testai