

Curriculum Vitae

Personal information

First name(s) / Surname(s) **Chiara Laura Battistelli**
Address(es) Istituto Superiore di Sanità
Viale Regina Elena, 299 00161 Rome, Italy
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E-mail chiara.battistelli@iss.it
Nationality Italian
Date of birth 06 February 1970
Gender Female



Education and training

Dates 1996-1999
Title of qualification awarded **PhD in Chemical Sciences**
Principal subjects/occupational skills covered Empirical research in organic chemistry: synthesis and physical chemical characterization.
Name and type of organisation providing education and training Organic Chemistry and Biochemistry Department, University of Naples "Federico II", Italy
Dates 1988-1995
Title of qualification awarded **Doctor in Chemistry, Organic Chemistry and Biochemistry exams**
Principal subjects/occupational skills covered Thesis title "Synthesis of structurally simplified analogues of Aphidicolin". Empirical research in synthetic organic chemistry
Name and type of organisation providing education and training Chemistry Department, University of Rome "La Sapienza", Italy

Work experience

Dates September 2006-Present
Occupation or position held **Research Assistant, Environment and Health Department, ISS**
Main activities and responsibilities Predictive toxicology; Structure-Activity Relationships: QSAR and Structure Alerts for mutagenicity and carcinogenicity; Integrated Approach to Testing and Assessment (IATA), Adverse outcome pathway (AOP); data modelling; construction of chemical relational databases, and data curation (<https://www.iss.it/isstox>).
Predictive toxicology in regulatory environment (i.e. REACH) and informatics tools (i.e. OECD QSAR Toolbox); substance evaluation (Community Rolling Action Plan-CoRAP) and dossier evaluation (Draft Decision), concerning the use of alternative in-silico method (Grouping, Category Approach and Read-Across) within the REACH framework.
Predictive toxicology for nanomaterials, FAIR (Findable, Accessible, Interoperable, and Reusable) principles and application to nanomaterials.
Name and address of employer Istituto Superiore di Sanità, ISS (Scientific research in Public Health Institute)
Environment and Health Department, viale Regina Elena 299, Rome, Italy

Dates **September 2004-2006**
 Occupation High School Chemistry Teacher (Public High School)
 Name and address of employer High School of Chemistry and Biochemistry, Alatri (FR), Italy

Dates **1999- 2004**
 Occupation or position held Research contract
 Name and address of employer Istituto Superiore di Sanità (Scientific research in Public Health Institute)
 Environment and Health Department, viale Regina Elena 299, Rome, Italy
 Main activities and responsibilities Human exposure assessment to toxic chemicals; Risk assessment

Personal skills and competences

Mother tongue Italian
 Other languages English

European level (*)

Language

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B1	Proficient user	B1	Proficient User	B1	Proficient User	B1	Proficient User	B1	Proficient User

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Experience in handling work teams, in teaching activity and tutoring of students.
 Experience in organization of international workshops.

Computer skills and competences

Toxicological database development (ISSTOX), ToxTree and OECD QSAR Toolbox software, read across, QSAR models. IUCLID 5 user.
 Many year of experience in using of citation manager such as EndNote and Reference Manager
 Competent with most Microsoft Office programmes, with several specialized computer-chemistry Software.
 Experience in database construction (i.e. sdf format).
 Experience in analytical techniques for detection and quantification of organic contaminants in environment and food (e.g. GC, GC-MS, HPLC, ASE, PowerPrep, SFE...).

Annexes

Selected relevant projects and publications

Selected relevant projects

1. **2022-2029 PARC**, Partnership for the Assessment of Risks from Chemicals, funded by the European Union's Horizon Europe research and innovation programme, coordinated by ANSES. This project is seeking to develop next-generation chemical risk assessment, in order to protect health and the environment.
2. **2021-2022 OECD "Development of an Assessment Framework for (Q)SAR model predictions"**, working group includes more than 30 international experts (ISS coordination).
3. **2021-present**, Italian representative at the **OECD Working Party on Nanomaterials**, Steering Group on the Safer Innovation Approach (SG SIA) and SGTA ad hoc group for updating section 6.9 on the OECD Guidance on grouping of chemicals.
4. **2019-2023 Gov4Nano Horizon 2020**. 'Implementation of Risk Governance: meeting the needs of nanotechnology' — 'Gov4Nano'. WP1: Improving the FAIRness of the nano-EHS data infrastructure.
5. **2015-2019, 2020- present**, Ames (Q)SAR collaborative study (Japan National Institute of Health Sciences). The goal is to improve reliability and applicability of QSAR models for predicting Ames mutagenicity, by the analysis of new Ames test results (approximately 12,000 chemicals).
6. **2018-2019 Project ISS-EFSA** OC/EFSA/PRAS/2016/01-Open call" Evaluation of the applicability of existing (Q)SAR models for predicting the genotoxicity of pesticides and similarity analysis related with genotoxicity of pesticides for facilitating of grouping and read across" (ISS coordinator)
7. **Project ISS-EFSA** (Open call): OC/EFSA/PRAS/2015/02. "Development of a consolidated database covering EFSA pesticide outputs on active substances"
8. **2016-2018 NanoREG II Horizon 2020-NMP-2014-two-stage**. "Development and implementation of Grouping and Safe-by-Design approaches within regulatory frameworks". WP1: Regulatory orientated activities establishing a framework of grouping approaches".
9. Italian representative at **OECD Meeting of the "QSAR Toolbox Management Group"** from 2020
10. Italian representative at **OECD Working group "IATA Case Studies Project"** from 2018
11. Italian representative at Network PARERE, from 2019
12. **2013 Project ISS—Swiss Federal Office of Public Health**: 'Construction of a chemical relational database on *IN VIVO* MICRONUCLEUS assay results'.
13. **2013 Project ISS—Swiss Federal Office of Public Health**: 'Construction of a chemical relational database on BIOCIDES'
14. **2013 Project ISS-ECHA/2013/167** "Scientific Review of the QSAR Toolbox and usability improvements": an extensive review and reliability estimation of datasets present in the OECD QSAR Toolbox, with particular interest for the genotoxicity endpoint.
15. **2012 Progetto ISS-Regione Lazio, RInnovaReNano** "Ricerca ed innovazione responsabile delle nanotecnologie: valutazione della sicurezza ed adeguamento normativo, a supporto dello sviluppo industriale, e realizzazione di una piattaforma informativa sulle nanotecnologie finalizzata all'accesso ed alla diffusione delle conoscenze."

Selected publications

1. **CL Battistelli**, C Bossa, O Tcheremenskaia Non-testing methods towards replacement within 3Rs principles. De Angelis I, Ricceri L, Vitale A (Ed.) Innovative replacement methods at the Istituto Superiore di Sanità in the spirit of the 3Rs principle. Roma: Istituto Superiore di Sanità; 2022 *Rapporti ISTISAN* 22/18, p.5
2. C Bossa, C Andreoli, M Bakker, F Barone, I De Angelis, N Jeliaskova, P Nymark, **CL Battistelli** FAIRification of nanosafety data to improve applicability of (Q)SAR approaches: A case study on in vitro Comet assay genotoxicity data *Computational Toxicology* 2021, 20, 100190, <https://doi.org/10.1016/j.comtox.2021.100190>
3. Jeliaskova N., Apostolova M.D., Andreoli C., Barone F., Barrick A., **Battistelli C**, Bossa C., Botea-Petcu A., Châtel A., De Angelis I., et al. Towards FAIR nanosafety data. *Nature Nanotechnology* 2021 16, 644–654, <https://doi.org/10.1038/s41565-021-00911-6>
4. Lorenzetti S, **Battistelli CL**, Bossa C, Cozzini P, Giuliani A, Nicolotti O, Tcheremenskaia O, Calleri M, Caloni F, Failla CM, Granata P, Kuan M, Nevelli F, Vitale A, De Angelis I. Application of computational methods in Replacement – an IPAM webinar, *ALTEX*, 2021 <https://doi.org/10.14573/altex.2102011>
5. Romualdo Benigni, Rositsa Serafimova, Juan Manuel Parra Morte, **Chiara L. Battistelli**, et al Evaluation of the applicability of existing (Q)SAR models for predicting the genotoxicity of pesticides and similarity analysis related with genotoxicity of pesticides for facilitating of grouping and read across: An EFSA funded project., *Regulatory Toxicology and Pharmacology*, <https://doi.org/10.1016/j.yrtph.2020.104658>
6. A Giusti, R Atluri, R Tsekovska, A Gajewicz, M. D. Apostolova, **CL Battistelli** et al. Nanomaterial grouping: Existing approaches and future recommendations. *NanoImpact* 2019. <https://doi.org/10.1016/j.impact.2019.100182>

7. O Tcheremenskaia, **C.L. Battistelli**, A Giuliani, R Benigni, C Bossa. In silico approaches for prediction of genotoxic and carcinogenic potential of cosmetic ingredients, *Computational Toxicology* 2019; 11; 91-100 <https://doi.org/10.1016/j.comtox.2019.03.005>
8. R Benigni, **C L. Battistelli** et al. Evaluation of the applicability of existing (Q)SAR models for predicting the genotoxicity of pesticides and similarity analysis related with genotoxicity of pesticides for facilitating of grouping and read across. *EFSA supporting publication* 2019:EN-1598. 220 pp. doi: [10.2903/sp.efsa.2019.EN-1598](https://doi.org/10.2903/sp.efsa.2019.EN-1598)
9. Honma M, ... Bossa C, Benigni R, **Battistelli CL**, et al J. Improvement of quantitative structure-activity relationship (QSAR) tools for predicting Ames mutagenicity: outcomes of the Ames/QSAR International Challenge Project. *Mutagenesis*, Volume 34, Issue 1, January 2019, Pages 3–16. <https://doi.org/10.1093/mutage/gev031>
10. Bossa C, Benigni R, Tcheremenskaia O, **Battistelli CL**. (Q)SAR Methods for Predicting Genotoxicity and Carcinogenicity: Scientific Rationale and Regulatory Frameworks. *Methods Mol Biol*. 2018; 1800:447-473. doi: [10.1007/978-1-4939-7899-1_20](https://doi.org/10.1007/978-1-4939-7899-1_20)
11. R Benigni, CL **Battistelli**, C Bossa, A Giuliani, O Tcheremenskaia. Endocrine Disruptors: Data-based survey of in vivo tests, predictive models and the Adverse Outcome Pathway. *Regulatory Toxicology and Pharmacology*, 86 (2017) 18, 24. doi: [10.1016/j.yrtph.2017.02.013](https://doi.org/10.1016/j.yrtph.2017.02.013)
12. F Barone, I De Angelis, C Andreoli e CL **Battistelli**, C Arcangeli e G Leter, Metodi in vitro e in silico per la valutazione del potenziale tossicologico dei nanomateriali. *Energia, ambiente e innovazione*. 3/2017 doi: [10.12910/EAI2017-045](https://doi.org/10.12910/EAI2017-045)
13. Benigni, C. Bossa, CL **Battistelli**, A. Giuliani and O. Tcheremenskaya Alternative toxicity testing: analyses on Skin sensitization, Toxcast Phases I and II, and Carcinogenicity provide indications on how to model mechanisms linked to adverse outcome pathways. *J Environ Sci Health C Environ Carcinog Ecotoxicol Rev*. 2015;33(4):422-43. doi: [10.1080/10590501.2015.1096885](https://doi.org/10.1080/10590501.2015.1096885)
14. Benigni R, Bossa C, Tcheremenskaia O, **Battistelli CL**, Giuliani A. The Syrian hamster embryo cells transformation assay identifies efficiently nongenotoxic carcinogens, and can contribute to alternative, integrated testing strategies, *Mutation Research* 2015;779: 35–38. doi: [10.1016/j.mrgentox.2015.02.001](https://doi.org/10.1016/j.mrgentox.2015.02.001)
15. Benigni R, Bossa C, **Battistelli CL**, Tcheremenskaia O. IARC Class 1 and 2 carcinogens are successfully identified by an integrated testing strategy that detects DNA-reactivity and Cell Transformation ability, *Mutation Research* 2013; 12;758(1-2):56-61. doi: [10.1016/j.mrgentox.2013.09.006](https://doi.org/10.1016/j.mrgentox.2013.09.006)
16. Benigni R, **Battistelli CL**, Bossa C, Tcheremenskaia O, Crettaz P. New perspectives in toxicological information management, and the role of ISSTOX databases on assessing chemical mutagenicity and carcinogenicity *Mutagenesis* 2013, 1–9. doi: [10.1093/mutage/get016](https://doi.org/10.1093/mutage/get016)
17. Benigni R, **Battistelli CL**, Bossa C, Colafranceschi M, Tcheremenskaia O. Mutagenicity, Carcinogenicity, and Other End points. In Reisfeld B. and Mayeno A.N., *Computational Toxicology: Vol. 2, Chapter 4; Methods Mol.Biol.* 2013; 930: 67-98. doi: [10.1007/978-1-62703-059-5_4](https://doi.org/10.1007/978-1-62703-059-5_4)
18. Benigni R, Bossa B, Tcheremenskaia O, **Battistelli CL** and Crettaz P. The new ISSMIC database on in vivo micronucleus and its role in assessing genotoxicity testing strategies. *Mutagenesis* 2011; 1–6. doi: [10.1093/mutage/ger064](https://doi.org/10.1093/mutage/ger064)
19. Alivernini S, **Battistelli CL**, Turrio-Baldassarri L. Human milk as a vector and an indicator of exposure to PCBs and PBDEs: temporal trend of samples collected in Rome. *Bulletin of Environmental Contamination and Toxicology* 2011; 87: 21–25
20. Turrio-Baldassarri L, Alivernini S, Carasi S, Casella M, Fuselli S, Iacovella N, Iamiceli AL, La Rocca C, Scarcella C., **Battistelli CL**, PCB, PCDD and PCDF contamination of food of animal origin as the effect of soil pollution and the cause of human exposure in Brescia. *Chemosphere* 2009; 76: 278-285. doi: [10.1016/j.chemosphere.2009.03.002](https://doi.org/10.1016/j.chemosphere.2009.03.002)
21. Turrio-Baldassarri L, Abate V, **Battistelli CL**, Carasi S, Casella M, Iacovella N, Indelicato A, La Rocca C, Scarcella C, Alivernini S. PCDD/F and PCB in human serum of differently exposed population groups of an Italian city. *Chemosphere* 2008; 73: S228-S234. doi: [10.1016/j.chemosphere.2008.01.081](https://doi.org/10.1016/j.chemosphere.2008.01.081)
22. Turrio Baldassarri L, Abate V, Alivernini S, **Battistelli CL**, Carasi S, Casella M, Iacovella N, Iamiceli AL, Indelicato A, Scarcella C, La Rocca C. A study on PCB, PCDD/PCDF industrial contamination in a mixed urban-agricultural area significantly affecting the food chain and the human exposure. Part I: soil and feed. *Chemosphere* 2007; 67(9): 1822-30
23. Turrio-Baldassarri L, **Battistelli CL**, Conti L, Crebelli R, De Berardis B, Iamiceli AL, Gambino M, Iannaccone S. Evaluation of emission toxicity of urban bus engines: compressed natural gas and comparison with liquid fuels. *Sci Total Environ*. 2006 Feb 15;355(1-3):64-77.
24. Turrio-Baldassarri L, **Battistelli CL**, Conti L, Crebelli R, De Berardis B, Iamiceli AL, Gambino M, Iannaccone S. Emission comparison of urban bus engine fueled with diesel oil and 'biodiesel' blend. *Sci Total Environ*. 2004 Jul 5;327(1-3):147-62.
25. Turrio-Baldassarri L, **Battistelli CL**, Iamiceli AL. Evaluation of the efficiency of extraction of PAHs from diesel particulate matter with pressurized solvents. *Anal Bioanal Chem*. 2003 Feb;375(4):589-95.

Autorizzo il trattamento dei miei dati personali nel rispetto delle disposizioni specifiche previste dal Regolamento Generale di Protezione dei Dati Personali (RGDP) UE 2016/679.

Rome, October 25th 2022

