Curriculum Vitae

Last name, First name: **Benfenati Emilio** **Gender**: **male**

Nationality/ies: **Italian**

Overall Scientific Expertise:
Dr. Emilio Benfenati graduated in chemistry (summa cum laude) at University of Milan in 1979. He is the main developer of the VEGAHUB platform for in silico models and read-across, with > 100 QSAR models available, including tools for cosmetics. He has coordinated > 20 EC funded projects and participated to > 30 other EC projects. He is the head of the Department of Environmental Health Sciences at the Mario Negri Institute, Milan, Italy. He organized the SETAC conference in Milano, 2011 (2350 participants) and QSAR 2014 (200 participants).

Professional Experience

Years employed from – to	Title of position	Employer – name and location	Areas of professional specialisation♠
2021-current	Head of the Department of Environmental Health Sciences	Istituto di Ricerche Farmacologiche "Mario Negri", Milano, Italy	Health sciences, environmental impact, risk assessment
1997 - 2020	Head of the Laboratory of Environmental Chemistry and Toxicology	Istituto di Ricerche Farmacologiche "Mario Negri", Milano, Italy	Health sciences, environmental impact, risk assessment
1987 - 1997	Head of the Biomedical Mass Spectrometry Unit	Istituto di Ricerche Farmacologiche "Mario Negri", Milano, Italy	Mass spectrometry, chemical analysis
1984-1996	Senior researcher	Istituto di Ricerche Farmacologiche "Mario Negri", Milano, Italy	Mass spectrometry, chemical analysis
1983-1984	Researcher	Stanford University School of Medicine	NMR
1981-1983	Researcher	Istituto di Ricerche Farmacologiche "Mario Negri", Milano, Italy	Mass spectrometry, chemical analysis

Educational Background

Year	Degree awarded	Educational Institution – name and location	Areas of educational specialisation*
1985	Post-degree specialization on Pharmacological Research	Istituto di Ricerche Farmacologiche "Mario Negri", Milano, Italy	Pharmacology
1979	Chemistry degree	Università degli Studi di Milano, Milano, Italy	Chemistry, organic

*[*For example*: chemistry (analytical, organic, etc.), physics (thermodynamics, nuclear, etc.), engineering (mechanical, electrical, chemical, civil, etc.), biology (microbiology, molecular, etc.), medicine (dermatology, oncology, etc.), environmental science, pharmacology, toxicology, etc.…]

Memberships in Scientific Advisory Bodies/Committees/Panels *(if any)***:**

2015 - 2017 Member of the Working Group on Weight of Evidence of the European Food Safety Authority, Parma, Italy

2017 – current, Member of the Advisory Group on Molecular Screening and Toxicogenomics (EAGMST) of the OECD, Paris, France.

2017 - 2019 Member of the Working Group on Chemical Mixtures of the European Food Safety Authority, Parma, Italy

2019 – current, Member of the Cross Cutting Working Group on Chemical Mixtures of the European Food Safety Authority, Parma, Italy

2019 – 2020, Member of the Working Group on Food Contact Materials of the European Food Safety Authority, Parma, Italy

2021-current. Member of the Working Group on Botanicals of the European Food Safety Authority, Parma, Italy

Memberships in Learned Societies *(if any)***:**

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Memberships in Editorial Boards *(if any)***:**

- ALTEX
- BMC Chemistry
- Toxics
- Journal of Environmental Science and Health, Part C
- Cosmetic Technology
- Review Editor in *Frontiers in Pharmacology* - section Experimental Pharmacology and Drug Discovery
- Review Editor in *Frontiers in Pharmacology* - section Predictive Toxicology

List of Publications:

E. Benfenati published > 450 papers in scientific journals, and edited some books on in silico modelling.

Ciffroy P, Mertens B, Van Hoeck E, Van Overmeire I, Johansson E, Alfonso B, Baderna D, Selvestrel G, Benfenati E. Modeling the migration of chemicals from food contact materials to food: The MERLIN-expo/VERMEER toolbox, Food and Chemical Toxicology, 166 (2022) 113118

Gadaleta D, Spînu N, Roncaglioni A, Cronin M, Benfenati E. Prediction of the Neurotoxic Potential of Chemicals Based on Modelling of Molecular Initiating Events Upstream of the Adverse Outcome Pathways of (Developmental) Neurotoxicity. International journal of molecular sciences, 23(6), 2022, 3053.

Viganò EL, Colombo E, Raitano G, Manganaro A, Sommovigo A, Dorne JLC, Benfenati E. Virtual Extensive Read-Across: A New Open-Access Software for Chemical Read-Across and Its Application to the Carcinogenicity Assessment of Botanicals. Molecules. 2022 Oct 5;27(19):6605.

Selvestrel G, Robino F, Baderna D, Manganelli S, Asturiol D, Manganaro A, Zanotti Russo M, Lavado G, Toma C, Roncaglioni A, Benfenati E. SpheraCosmolife: a new tool for the risk assessment of cosmetic products. ALTEX - Alternatives to animal experimentation, 2021, 38(4), 565-579.

Toropov AA, Toropova AP, Marzo M, Carnesecchi, E, Selvestrel G, Benfenati E. Pesticides, cosmetics, drugs: identical and opposite influences of various molecular features as measures of endpoints similarity and dissimilarity. Mol Divers 25, 1137–1144 (2021).

Baderna D, Gadaleta D, Lostaglio E, Selvestrel G, Raitano G, Golbamaki A, Lombardo A, Benfenati E. New in silico models to predict in vitro micronucleus induction as marker of genotoxicity. Journal Hazardous Material, 2020, 385, 121638

Rogiers V, Benfenati E, Bernauer U, Bodin L, Carmichael P, Chaudhry Q, Coenraads PJ, Cronin MTD, Dent M, Dusinska M, Ellison C, Ezendam J, Gaffet E, Galli CL, Goebel C, Granum B, Hollnagel HM, Kern PS, Kosemund-Meynen K, Ouédraogo G, Panteri E, Rousselle C, Stepnik M, Vanhaecke T, von Goetz N, Worth A. The way forward for assessing the human health safety of cosmetics in the EU workshop proceed. Toxicology, 2020, 436, 152421,

Benfenati E, Chaudhry Q, Gini G, Dorne JL. Integrating in silico models and read-across methods for predicting toxicity of chemicals: A step-wise strategy. Environment International 2019; 131, 105060

Raitano G, Roncaglioni A, Manganaro A, Honma M, Sousselier L, Do Q-T, Paya E, Benfenati E. Integrating in silico models for the prediction of mutagenicity (Ames test) of botanical ingredients of cosmetics. Computational Toxicology, DOI: 10.1016/j.comtox.2019.100108

Ates G, Raitano G, Heymans A, Van Bossuyt M, Vanparys P, Mertens B, Chesne C, Roncaglioni A, Milushev D, Benfenati E, Rogiers V, Doktorova TY. In silico tools and transcriptomics analyses in the mutagenicity assessment of cosmetic ingredients: a proof-of-principle on how to add weight to the evidence. Mutagenesis, 2016, 31, 453-461.