EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Curriculum Vitae

Personal information

Maria Chiara Astuto

Work experience

- From December 2022 to present. Scientific Officer at European Food Safety Authority (EFSA), Methodology and Scientific Support Unit - Scientific Committee Team), Italy. Involved in the cross-cutting Working Group on Nanotechnologies, cross-cutting Working Group on Genotoxicity, and ongoing projects in the field of New Approach Methodologies (NAMs).
- From May 2021 to November 2022. Junior Scientific Officer at Randstad c/o EFSA, Scientific Committee and Emerging Risk Unit, New Approaches in Risk Assessment Team. Involved in the cross-cutting Working Group on Nanotechnologies, cross-cutting Working Group on Genotoxicity, Working Group on Benchmark Dose (BMD), and ongoing projects in the field of New Approach Methodologies (NAMs).
- From November 2019 to April 2021. Scientific Officer Trainee at EFSA, Scientific Committee and Emerging Risk Unit, New Approaches in Risk Assessment Team. Involved in the cross-cutting Working Group on Nanotechnologies, Working Group on Non-Monotonic Dose-Response, Working Group on Harmonisation of Health-based Guidance Values for regulated products that are also nutrients, and ongoing projects in the field of New Approach Methodologies (NAMs).
- From January to July 2019. Internship at VitroScreen S.r.l, Italy. Involved in a research activity focused on the use of NAMs for botanicals' safety assessment.
- From June to December 2016. Internship at MM SPA, waste water treatment plant of Milano San Rocco, Italy. Involved in a research activity focused on the prevalidation of an innovative instrument for the bacterial count in water.

Education and training

- From October 2017 to July 2019. Master's degree: 'Safety assessment of xenobiotics and biotechnological products'. University of Milan, Italy. Department of Pharmacological and Biomolecular Sciences. Main subjects: human health and mammalian toxicology, computational toxicology, risk assessment, regulatory toxicology and legislation, epigenetics, pharmacotoxicology, biotechnology, physiopathology and histopathology, bioinformatics, environmental toxicology and bioremediation.
- From September 2008 to July 2013. Bachelor's degree: 'Chemical-toxicological science and safety for the environment'. University of Milan, Italy. Department of Pharmacological and Biomolecular Sciences. Main subjects: environmental toxicology, human health toxicology, chemistry (organic, inorganic, environmental, food), biology, biochemistry, pharmacology, physiology, informatics.

Additional information

Publications

- Cattaneo I, Astuto MC, Binaglia M, Devos Y, Dorne JLCM, Fernandez Agudo A, Fernandez Dumont A, Garcia-Vello P, Kass GEN, Lanzoni A, Liem AKD, Panzarea M, Paraskevopulos K, Parra Morte JM, Tarazona JV and Terron A, 2023. Implementing New Approach Methodologies (NAMs) in food safety assessments: Strategic objectives and actions taken by the European Food Safety Authority. Trends in Food Science & Technology, 133:277-290. DOI: https://doi.org/10.1016/j.tifs.2023.02.006
- Schoonjans R, Castenmiller J, Chaudhry Q, Cubadda F, Daskaleros T, Franz R, Gott D, Mast J, Mortensen A, Oomen AG, Rauscher H, Weigel S, Astuto MC, Cattaneo I, Barthelemy E, Rincon A and Tarazona J, 2023. Regulatory safety assessment of nanoparticles for the food chain in Europe. Trends in Food Science & Technology, 134:98-111. DOI: https://doi.org/10.1016/j.tifs.2023.01.017
- Cattaneo I, Kalian AD, Di Nicola MR, Dujardin B, Levorato S, Mohimont L, Nathanail AV, Carnessechi E, Astuto MC, Tarazona JV, Kass GEN, Liem AKD, Robinson T, Manini P, Hogstrand C, Price PS and Dorne JLCM, 2023. Risk Assessment of Combined Exposure to Multiple Chemicals at the European Food Safety Authority: Principles, Guidance Documents, Applications and Future Challenges. Toxins, 15:40. DOI: https://doi.org/10.3390/toxins15010040
- Astuto MC, Benford D, Bodin L, Cattaneo I, Halldorsson T, Schlatter J, Sharpe RM, Tarazona J and Younes M, 2023. Applying the adverse outcome pathway concept for assessing non-monotonic dose responses: biphasic effect of bis(2-ethylhexyl) phthalate (DEHP) on testosterone levels. Archives of Toxicology, 97:313-327. DOI: https://doi.org/10.1007/s00204-022-03409-9
- Di Nicola MR, Cattaneo I, Nathanail AV, Carnesecchi E, Astuto MC, Steinbach M, Williams AJ, Charles S, Gestin O, Lopes C, Lamonica D, Tarazona JV and Dorne JLCM, 2023. The use of new approach methodologies for the environmental risk assessment of food and feed chemicals. Current Opinion in Environmental Science & Health, 31:100416. doi: https://doi.org/10.1016/j.coesh.2022.100416
- Astuto MC, Di Nicola MR, Tarazona JV, Rortais A, Devos Y, Liem AKD, Kass GEN, Bastaki M, Schoonjans R, Maggiore A, Charles S, Ratier A, Lopes C, Gestin O, Robinson T, Williams A, Kramer N, Carnesecchi E and Dorne J-LCM, 2022. In Silico Methods for Environmental Risk Assessment: Principles, Tiered Approaches, Applications, and Future Perspectives. In: Benfenati E (ed.). In Silico Methods for Predicting Drug Toxicity. New York, NY, Springer US. pp. 589-636. DOI: https://doi.org/10.1007/978-1-0716-1960-5_23
- Ingenbleek L, Lautz LS, Dervilly G, Darney K, Astuto MC, Tarazona J, Liem AKD, Kass GEN, Leblanc JC, Verger P, Le Bizec B and Dorne JLCM, 2021. Risk Assessment of Chemicals in Food and Feed: Principles, Applications and Future Perspectives. Environmental Pollutant Exposures and Public Health, The Royal Society of Chemistry. pp. 1-38. DOI: https://doi.org/10.1039/9781839160431-00001

Projects

- EFSA Pilot Project on NAMs for the risk assessment of the pesticide Tebufenpyrad, Part 1 'Development of physiologically-based kinetic (PBK) model coupled with pulmonary and dermal exposure' (GP/EFSA/SCER/2020/02), and Part 2 'Hazard characterisation and identification of the Reference Point'

(NP/EFSA/SCER/2020/02).
- EFSA Pilot Project on NAMs for the hazard assessment of nanofibers (GP/EFSA/SCER/2020/04), Lot 1 'Nanocellulose oral exposure: gastrointestinal digestion, nanofibers uptake and local effects', and Lot 2 'Exploring the use of gut-on-a-chip models for risk assessments of nanofibers'.
- EFSA Pilot Project on the use of NAMs to explore the immunotoxicity of the contaminant PFAS (OC/EFSA/SCER/2021/13)
- EFSA Pilot Project on the use of NAMs to explore interspecies metabolic differences on essential oils as feed additives (OC/EFSA/SCER/2021/14)
- EFSA Project on Exploring the use of Artificial Intelligence (AI) for extracting and integrating NAM-based data for chemical risk assessment (OC/EFSA/SCER/2021/08)
- EFSA NAMS4NANO Project, Integration of New Approach Methodologies results in chemical risk assessments: Case studies addressing nanoscale considerations (GP/EFSA/MESE/2022/01)

Memberships

Other Relevant Information