

Exposure to emerging contaminants in drinking water in Barcelona potentially linked to chronic diseases and wellbeing

Researchers: Marta Schuhmacher, José L. Domingo, Jordi Blanco, Joaquim Rovira, Roser Esplugas

▪ **Consortium:**

The project is funded by Ajuntament de Barcelona in the framework of Pla Barcelona Ciència.

The project consortium is made up of 3 Beneficiary Institutions: ISGlobal- Fundació Privada Institut de Salut Global Barcelona (Coordinator) and Agència Estatal Consell Superior d'Investigacions Científiques, M. P. Institut de Diagnosi Ambiental i Estudis de l'Aigua (CSIC-IDAEA), TecnATox- Universitat Rovira i Virgili.

▪ **Overview:**

We propose an evaluation of selected emerging chemicals in drinking water, that have been shown to be related to a range of non-communicable diseases but knowledge about the magnitude of exposure through drinking water is unknown.

OBJECTIVE: Evaluate exposure to emerging pollutants in drinking water in Barcelona

- 1) Measure perfluorinated substances (PFASs), bisphenol A (BPA), nonylphenol (NP), haloacetic acids (HAAs), chlorite and chlorate in drinking water
- 2) Create a map of the concentrations in Barcelona
- 3) Estimate the contribution of drinking water on the internal dose of PFASs and trichloroacetic acid
- 4) Measure neurotoxicity in drinking water
- 5) Quantify the contribution of PFASs, BPA, NP, HAAs, chlorite and chlorate on the in vitro neurotoxicity



▪ **Expected impact:**

First complete information on exposure to emerging compounds in drinking water in Barcelona, with the potential to assess effects related to aging in the population.