

## **Human health: linking environmental exposure and human biomonitoring data for human health risk assessment of chemicals**

Katleen De Brouwere, Gudrun Koppen

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Monitoring of chemicals in different environmental matrices (air, soil, dust, sediment, several types of water bodies) has a long-standing history as an instrument for environmental risk assessment. Risk assessment of humans exposed to environmental sources of chemicals ('Man via the Environment Exposure') classically relies on modelling of human exposure to environmental sources. Man via the environment exposure models are based on predictions of transfer from the environment to dietary commodities, and on assessment of inhalation, dermal and oral intake or contact rates with environmental sources. Such modelling is a simplification of individual's exposure since models inherently rely on assumptions regarding exposure mechanisms and model parameter values. In addition to such a modelling approach to address 'Man via the Environment Exposure', human biomonitoring offers a promising, innovative tool in the field of risk assessment of humans exposed via the environment. Internal exposure levels of chemicals, obtained by human biomonitoring, are considered a direct and integrated measure of chemical burdens of individuals, resulting from diverse exposure sources and routes. Examples of human biomonitoring of chemicals are parental compounds or their metabolites in for example urine, blood, hair or nail samples of individuals of the general population including vulnerable or highly exposed subgroups. In this session, we hope to foster interaction between the disciplines of environmental monitoring, human biomonitoring, and human exposure modelling, and to identify areas where disciplines can supplement and strengthen each other, resulting in informing effective policy-making to protect the EU population from the impacts of chemical exposure on health. We seek submissions in the following areas: - Validation of human exposure models using coupled environmental and human biomonitoring data - Attribution of environmental exposure sources in human biomonitoring studies - Impact of environmental policy actions supported by human biomonitoring results - Interpretation of human biomonitoring data in risk assessment - Pan- European initiatives in environmental monitoring and human biomonitoring