Safer chemicals for the next generation. That is our aim in EDC-MixRisk, an EU project where European researchers have come together for four years to advance the understanding of health effects of endocrine disrupting chemicals. With the results, we will improve risk management of these harmful chemicals.

A large body of evidence supports associations between exposure to chemicals and endocrine disrupting effects, leading to disorders in humans and wildlife. It is beyond doubt that endocrine disrupting chemicals (EDCs) are of concern and need to be handled according to the risks they pose, as single chemicals or as mixtures.

With experts from eleven European universities and one American university, we will address these concerns by developing chemical risk assessment based on improved understanding of the mechanisms and health effects of EDCs, in particular as mixtures. This approach involves selection, refinement and development of tools for risk assessment of EDC mixtures to bring current procedures to a level where they can support risk management.

Our interdisciplinary research includes:

1. Two European epidemiological pregnancy cohort studies (SELMA and The LIFE Child Study) used for identifying critical EDC mixtures that are related to multiple outcomes in three health domains (growth and metabolism; neurodevelopment, and sexual development);
2. A range of experimental toxicology and molecular biology approaches to determine multiple adverse health outcomes starting from molecular mechanisms experienced during early life exposure to EDC mixtures;

Together this interdisciplinary research, integrating epidemiologic and experimental evidence, will facilitate assessment of risk and societal impact ensuring better risk management for EDCs and mixtures.