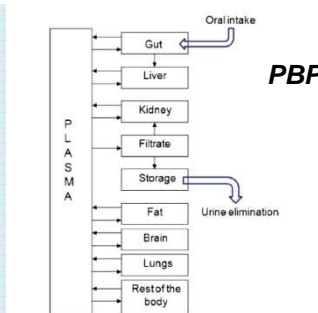
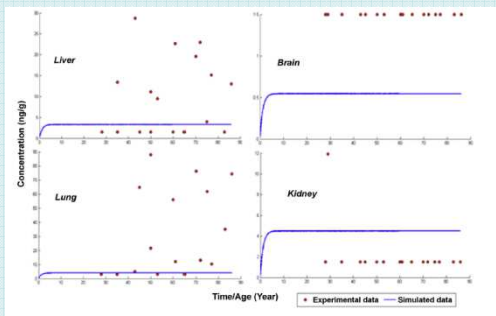


## EUROMIX: EUROPEAN TEST AND RISK ASSESSMENT STRATEGIES FOR MIXTURES

**Research team:** Margarita Torrente, Tània Garcia, Mercedes Gómez, Vikas Kumar, Gemma Perelló, Marta Schuhmacher, Martí Nadal and José L. Domingo

### Goals

- To develop a bioassay toolbox using well-established bioassays in cell lines and primary cells in combination with “omics” technology for quantitative *in-vitro* screening mixtures, of particular use for a mechanism-based refined grouping of chemicals.
- To verify the toolbox of *in silico* methods and *in vitro* bioassays against *in vivo* animal tests, and comparing the results with human biomarkers.
- To create a web-based platform of models and data openly accessible to scientists and other stakeholders involved in the human health risk assessment of food chemicals.



**PBPK models**



**In vivo studies**

### Expected Results

- Development of a tiered mechanism-based test strategy for refining cumulative and aggregated risk assessment using *in-silico* and *in-vitro* tools that will be verified against *in-vivo* data.
- Combination of a mechanism-based quantitative methodology for hazard characterization incorporated with an advanced tool for exposure assessment.
- Increase of the efficiency and effectiveness of safety evaluations of the impact of mixtures on human health with regard to the costs and number of laboratory animals used.