

Title: Supplementary Data 1:

Description: List of biomarkers extracted from the HMDB database, the effectors that can directly detect those biomarkers, and the biomarkers that can be transformed via a metabolic reaction into a detectable molecules, along with the associated metabolic reaction and corresponding enzymes.

Title: Supplementary Data 2:

Description: List of metabolites that can be transformed into benzoate through a metabolic transducer, along with the metabolic reactions and the associated enzymes.