CASCADE integrated hierarchical test system

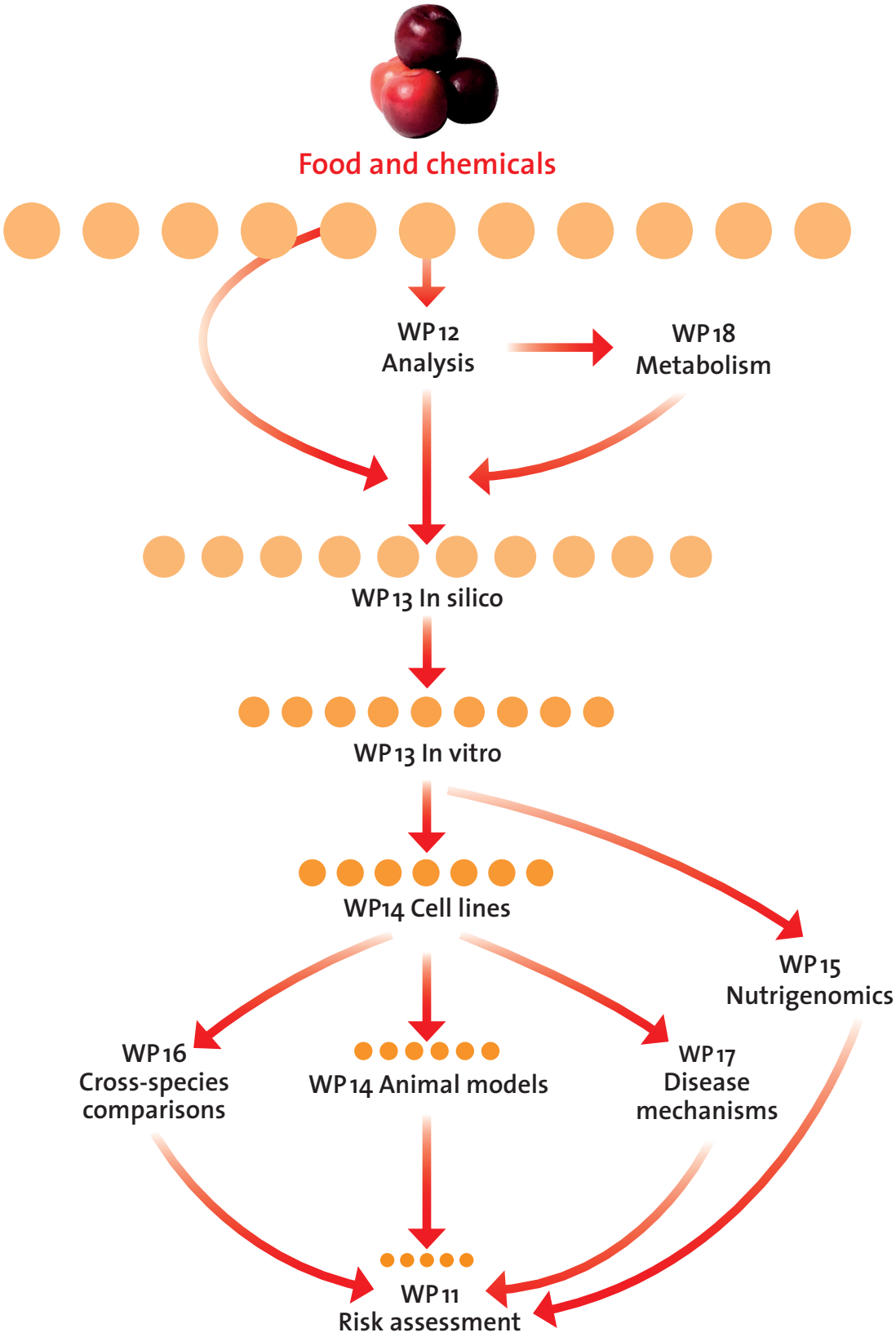

Figure: CASCADE integrated hierarchical test system.

The primary screen will be based on fast but approximate *in silico* methods (WP13) to identify food contaminants that are likely to bind to one or more nuclear receptors. These *in silico* hits will be screened by *in vitro* receptor binding assays (WP13) to confirm their binding. For the confirmed hits, Reflectometric Interference Spectroscopy (RIfS) will be used to determine the thermodynamic and kinetic binding parameters which can be used to refine the *in silico* methods. Confirmed hits will be further characterised by functional testing using *in vivo* assays in cell lines, reporter animals and animal models (WP14, 15, 16 and 17). Analytical tools for quantification of endocrine disruptors are developed in WP12 and the role of metabolism of the chemicals is studied in WP18. Finally, the chemical structures and associated biological data will be made accessible in the NR database (WP6).