

Highlights of BIOLOG metabolic fingerprinting

The Biolog platform analyzes function of living cells in real time

The Biolog phenotypic analysis gives functional read-out of what cells are capable of metabolizing in real time. This is in stark contrast to RPPA or PCR arrays, which quantify protein or transcript levels at single time points only and do not reveal actual cellular function, i.e. the user is left to try to guess which genes translate into function. However, a combination of Biolog functional read-out with assessment of the underlying molecular landscape may be very informative (figure below)

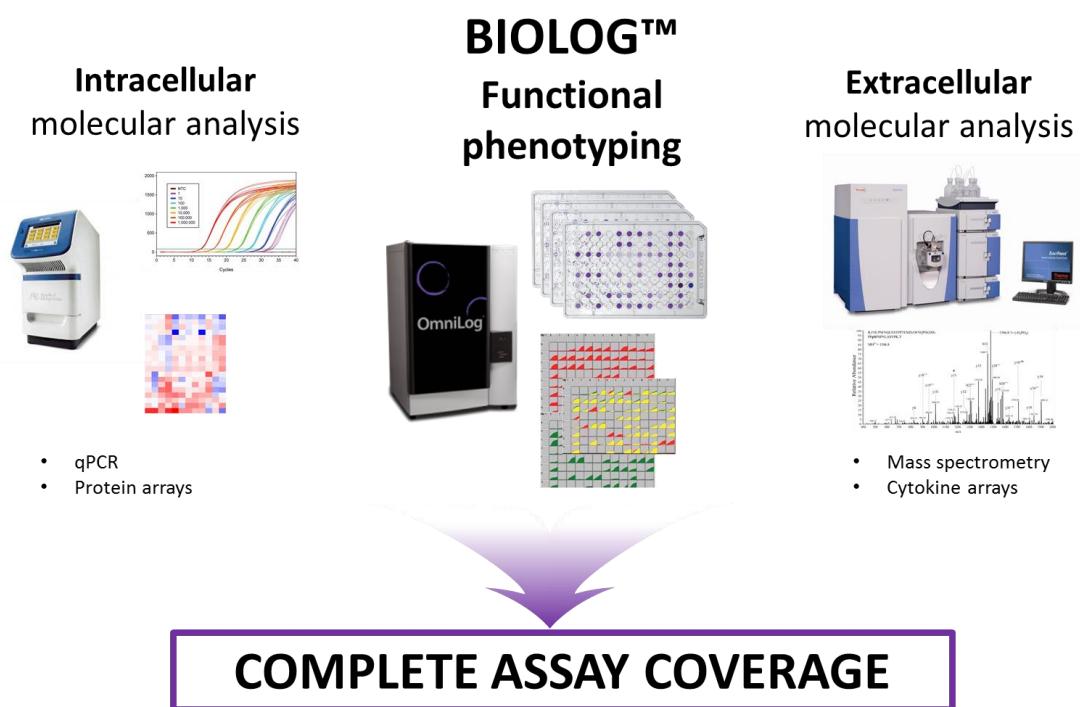
Biolog phenotyping is cost-effective

A typical cytokine array kit covering 40 analytes costs in the range of 550 euros. In comparison, Biolog plates PM1-4 cover 367 metabolic pathways, analyzed in living cells in real time, for an approximate cost of 300 euros!

Biolog phenotyping COMPLEMENTS several key technologies!

The Biolog phenotypic fingerprinting gives a broad overview of what cells are able to “eat”. This information can nicely be coupled to data on which metabolites may be available, assessed e.g. by mass-spectrometric profiling of the relevant extracellular fluids. Also, the Biolog platform gives functional data on several metabolic pathways, which can be combined with molecular analyses of the metabolic effectors regulating those pathways, e.g. by PCR or protein array.

How does metabolic fingerprinting fit in with other technologies?



The Biolog software offers KEGG information summary and relative role and position within the cellular metabolic machinery for each single-molecule analyte.