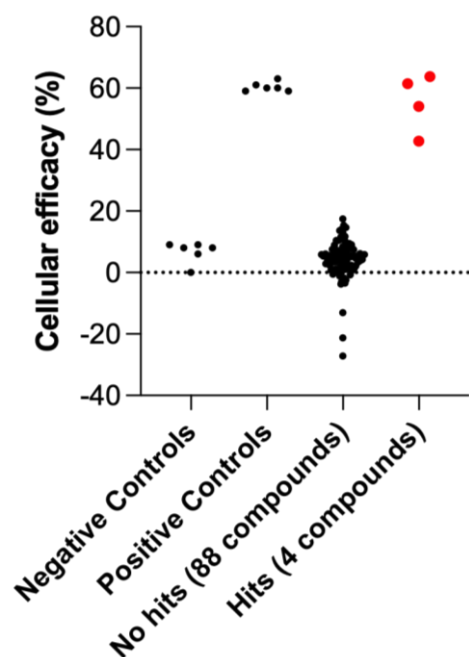


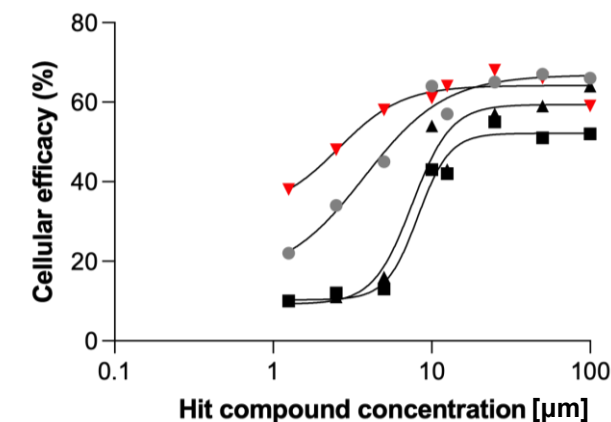
Accelerating Oncology Hit Discovery: A 10-Fold Increase in Screening Efficiency Using a Pharos-3D-Curated Library



For an RNA metabolic enzyme, Alipheron Pharos-3D was used to reveal 144 promising compounds from an ultra-large combinatorial library containing tens of billions of make-on-demand molecules. 92 of these 144 compounds were available and thus ordered to form a small and highly target-biased experimental screening library, from which four compounds with a dose-dependent response were confirmed as active.

The proposed mode of action was subsequently validated using a panel of orthogonal biochemical and cellular assays. All four confirmed hits demonstrated target-specific cellular activity with no evidence of general cytotoxicity.

Conventional high-throughput screening (HTS) of large chemical libraries typically yields hit rates of only 0.1–0.5%. By leveraging Pharos-3D, we constructed a small, potent, and highly target-biased library that delivered a 4% hit rate. This focused approach increased screening efficiency by an order of magnitude by using a correspondingly smaller library.



“Pharos-3D accelerated our drug development program by enabling hit discovery just by one small-scale screen. A tenfold increase in hit rate is incredible - and these were true functional hits which we could confirm in multiple orthogonal assays.”

Dr Dirk Mossmann, Scientific Project Manager at Swiss Rockets AG

