Medical Xpress

Integrated lead discovery: An evolving toolbox

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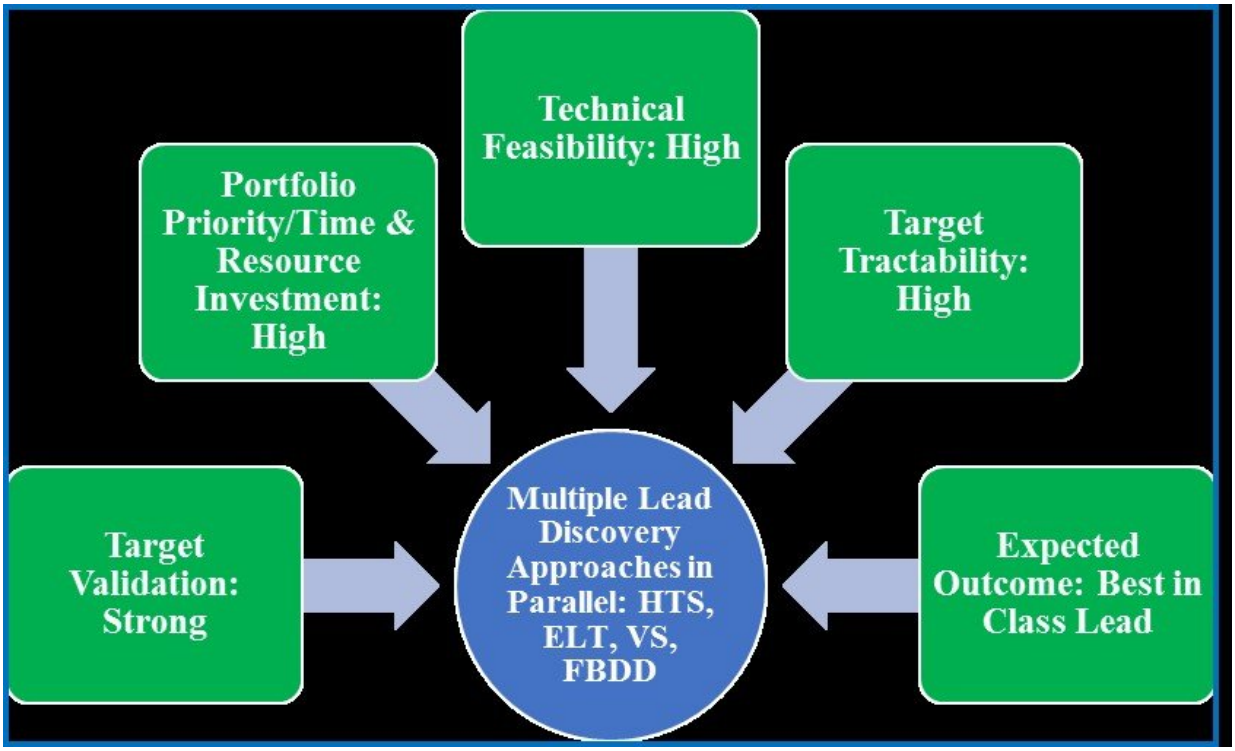

An illustrative example of decisions leading to the initiation of a parallel integrated lead discovery effort. Credit: Melanie Leveridge

A new *SLAS Discovery* review article by GlaxoSmithKline researchers in the U.S. and U.K. offers an informative guide to the established and emerging tools available for early drug discovery and screening, and provides illustrative scenarios demonstrating considerations that drive

decisions on choice of lead discovery tactics.

While high-throughout screening (HTS) remains a mainstay in drug discovery, other approaches have emerged or evolved in the past decade that offer complementary strengths and weaknesses, and are increasingly applied in combination with, or in lieu of, HTS. Great success often can be achieved by combining different approaches in an integrated manner.

Leveridge et al. survey the landscape of lead discovery tactics that researchers use today and explain how this toolbox of approaches is evolving as new science emerges, such as in the areas of complex cellular models and computational techniques. Case studies illustrate how integration of techniques like DNA-encoded library screening (ELT) and HTS, phenotypic and target-based screening, and virtual screening (VS) with experimental approaches can lead to successful outcomes and provide insights and synergies that would never have been obtained through one technique alone.

More information: Melanie Leveridge et al, Integration of Lead Discovery Tactics and the Evolution of the Lead Discovery Toolbox, *SLAS DISCOVERY: Advancing Life Sciences R&D* (2018). DOI: 10.1177/2472555218778503

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