

Preclinical Case Study #1: Lead Identification and Optimization

The Challenge:

A client created a small-batch panel of novel histone deacetylase inhibitors. The client did not have its own laboratory and had no information on potency, formulation, or overall context of activity of any of the drug candidates.

The Solution:

On the client's behalf, TD2 designed and executed in vitro potency evaluation of the novel molecules with the goal of identifying a context for drug activity. TD2 identified lead compounds and further characterized the lead compound as a HDAC6 targeting inhibitor in addition to a mutational context conferring sensitivity. To facilitate further in vivo evaluation of the compound, TD2 provided a cost-effective solution for compound scale-up. Following scale-up, TD2 created a safe vehicle for the lead compound for in vivo testing. Using the selected and optimized lead drug candidate TD2 confirmed efficacy of the compound in two human tumor models confirming the hypothesized context identified earlier and showed synergistic activity with standard of care agents.

The Result:

Due to the diligent planning and execution of the studies by TD2, the client's compound received preclinical investor funding for further development of the compound.

Preclinical Case Study #2: Working well under tight timelines

The Challenge:

A large pharmaceutical client had two drug programs that needed efficacy testing against xenograft models. The client has xenograft testing capabilities; however, there was a large internal testing queue and data was needed quickly in order to facilitate program decisions.

The Solution:

TD2 quickly worked through the contractual terms to perform the work. To streamline the process, TD2 worked in parallel to quickly source and validate lines requested by the client that were not available in house as well as worked on finalizing the study designs. In doing so, by the time the required contracts were finalized the TD2 team was ready to move forward immediately with the requested studies. TD2 was contracted to deliver efficacy data on multiple xenograft models and given a short timeline in which to provide final data.

The Result:

TD2 was able to meet the deadlines set forth by the client in a cost-effective manner. This resulted in a long-term partnership that continues today as a result of TD2's reliability with study performance and timely turnaround of data.