Advanced Analytics Meets Drug Development: Decision Support for Adaptive Clinical Trials

Clinical trials play a fundamental role in ensuring that new drugs, therapies, and medical devices brought to market are safe and efficacious; however, they are long and costly. Adaptive designs have the potential of significantly changing biopharmaceutical R&D by allowing modifications to the course of an ongoing trial without undermining its results. Adaptive clinical trials promise significant benefits to trial sponsors, trial participants, and the population at large, but they complicate resource allocation decisions. Advanced analytics can be utilized to inform these decisions, making an impact on not only the sponsor's financial performance, but on the population's access to new treatment options.