99.6% of clinical trials for age-associated neurodegenerative diseases result in failure. Across hundreds of clinical trials for age-associated neurodegenerative disorders, only a few therapies aimed at symptomatic relief have demonstrated efficacy – none have resulted in a cure. Historically clinical trials have used a one-size fits-all approach, ignoring both disease complexity and their progressive nature.

A challenge to finding a cure for Alzheimer’s, Parkinson’s, Multiple and ALS requires clinical trials with large patient numbers to ensure that even small therapeutics effects can be detected. Partnering with the Critical Path Institute, we are leveraging biomarker data to power computational simulations of disease progression rates, allowing us to identify patient specific transition states to refine windows of therapeutic opportunity and drive clinical trial recruiting.

WE ARE CREATING CLINICAL TRIALS THAT ARE MORE efficient AND WITH GREATER STATISTICAL POWER – REDUCING BOTH TIME, SIZE, AND COST.

Traditional clinical trials proceed linearly from design to conduct to analysis. At CIBS we are implementing adaptive trial designs that use interim data reports to add a review–adapt loop to the trials structure. Through careful a priori contingency mapping, we are able to implement changes to our designs based on the analyses of the recorded data – ensuring our trials produce the best possible data.