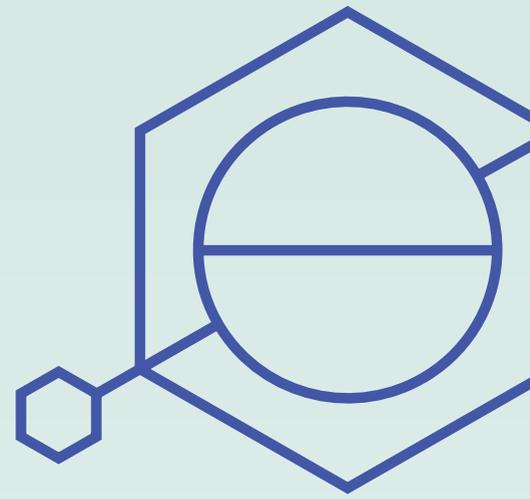**Paul Bleicher**
CEO
OptumLabs

Paul Bleicher, CEO at *OptumLabs*, and one of the speakers at the FT US Pharma & Biotech Summit on May 14, shares insights on the benefits we will see AI bring to pharma companies and patients, in the short and long term, as well as use cases for the technology.

Read Paul's insights here:

There are a number of ways that AI can benefit the pharma sector in the near term, and a lot of work is underway to use it. AI adds value to helping solve problems through classification and prediction. These strengths can be used in a variety of places across the sector, but my area of expertise in pharma is in randomized clinical trials (RCTs) where there is an opportunity to use AI to improve efficiency and reduce cost.

One of the most obvious use cases for AI in RCTs is in identification of patients. In the past, screening patients to include in trials has been problematic, given the mismatch between inclusion and exclusion criteria in electronic health records (EHR). That means recruitment can take a lot of time. But if you can look at who qualified and who didn't for specific inclusion and exclusion criteria in trials historically and see how they did, you can create a labelled data set that can be used to train a model to see who passes and fails for a trial, thereby creating a more valuable list of patients to facilitate recruitment.

A second way AI can help is in predicting how a clinical trial site is doing. Drugs used in clinical trials are typically manufactured in a smaller facility than at launch and an AI model could help predict the supply of drugs needed for a trial to facilitate production planning and avoid slowing enrollment because a site runs out of study drug.

A third application of AI involves identifying adverse experiences. AI is particularly good at identifying events like these in charts and other information related to them. That provides a lot of valuable information to predict adverse experiences and run interventions to reduce them.

A fourth use of AI is to help with risk-based monitoring. On-site monitoring is expensive, given the time and travel costs involved. An AI model can be trained to identify which sites, patients and data elements are most important to monitor and prioritize them over those that don't need to be monitored to improve the efficiency of the process.

These are just a few of the ways that AI can help in RCTs near term. Longer term, there are other use cases emerging. For example, using AI for endpoints is an interesting and important area. An increasing number of endpoints in RCTs are coming off digital sensors and digital based technologies. New methods are needed to analyze and distinguish the information to know what is valid, and AI can help with that.

Another example is that AI could be used for chat bots or through Alexa to ask questions and get responses from patients in RCTs. This would allow us to get closer to real patient-reported outcome information.

Learn more about the benefits of AI for the healthcare and Life Sciences industry at the **FT US Pharma & Biotech Summit** on May 14 in NYC, in the panel session Advances in analytics: Applications at the heart of pharma, presented by *Pfizer*, *InSilico Medicine*, *OptumLabs*, *Eli Lilly* and *Medidata*.

View the full agenda and speaker line-up here:
live.ft.com/USPharma.