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Pharma giants explore IBM Watson's role in drug development

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Leading lifesciences organizations are deploying Watson Discovery Advisor to advance discoveries in ongoing research projects, including Baylor College of Medicine, Johnson and Johnson and The New York Genome Center.

Sanofi is exploring how working with Watson can speed up the discovery of alternate indications for existing drugs (drug re-purposing).

Watson is able to understand and extract key information by reading millions of pages of scientific literature and then visualizes relationships between drugs and other potential diseases they could target while providing supporting evidence each step of the way.

Drug safety and toxicity is a major driver of the high failure rate in clinical development and trials.

Sanofi is exploring how Watson's ability to understand, extract and organize toxicological information can enable researchers to make better informed decisions with respect to candidate progression.

Johnson & Johnson is collaborating with the IBM Watson Discovery Advisor team to teach Watson to read and understand scientific papers that detail clinical trial outcomes used to develop and evaluate medications and other treatments.

This collaboration hopes to accelerate comparative effectiveness studies of drugs, which help doctors match a drug with the right set of patients to maximize effectiveness and minimize side effects.

"We're entering an extraordinary age of data-driven discovery," said Mr Mike Rhodin, senior vice president, IBM Watson Group. "Today's announcement is a natural extension of Watson's cognitive computing capability. We're empowering researchers with a powerful tool which will help increase the impact of investments organizations make in R&D, leading to significant breakthroughs."

IBM Watson will be supporting the analysis in New York Genome Center's clinical study to advance genomic medicine. The clinical study will initially focus on clinical application of genomics to help oncologists deliver DNA-based treatment for Glioblastoma.