Project will apply cognitive computing to uncover new patient treatment options

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IBM today announced a new initiative to accelerate the adoption of genomic based medicine at Cleveland Clinic. Researchers at Cleveland Clinic will use IBM Watson technology in the area of genomic research to help oncologists deliver personalized medicine by uncovering new cancer treatment options for patients.

The Lerner Research Institute's Genomic Medicine Institute at Cleveland Clinic plans to evaluate Watson's ability to help oncologists develop more personalized care to patients for a variety of cancers. Clinicians lack the tools and time required to bring DNA-based treatment options to their patients and to do so, they must correlate data from genome sequencing to reams of medical journals, new studies and clinical records. At a time when medical information is doubling every five years, a faster option is needed.

This use of Watson aims to find the "needle in the haystack" through identifying patterns in genome sequencing and medical data to unlock insights that will help clinicians bring the promise of genomic medicine to their patients. The combination of Cleveland Clinic's clinical expertise coupled with the power of IBM's Watson system will enable improvements to, and learnings within, the Watson tool with the shared goal of helping medical professionals develop personalized cancer care.

"The potential for leveraging the capabilities of Watson's cognitive computing engine in personalized medicine could not be timelier," says Charis Eng, M.D., Ph.D., Chair and founding Director of the Lerner

Research Institute's Genomic Medicine Institute. "Clinicians will benefit from the knowledge and insight provided by Watson in the care of their patients."

The pilot initiative is an extension of on-going programs with Cleveland Clinic to aid the advancement of big data in healthcare.

"We are very pleased with the progress being made and the impact IBM has had in the commercialization of promising genomic medicine technologies," says Gary Fingerhut, Executive Director of Cleveland Clinic Innovations.

The use of Watson in genomic research draws on a combination of Watson's cognitive services, deep computational biology models and IBM's public cloud infrastructure SoftLayer. Watson can continually 'learn' as it encounters new patient scenarios, and as more information becomes available through new medical research, journal articles and clinical studies.

Given the depth and speed of Watson's ability to review massive databases, the goal of the collaboration is to increase the number of patients who have access to care options tailored to their disease's DNA.

"Using Watson's cognitive computing capabilities, Cleveland Clinic aims to offer cutting-edge care to millions of patients," said Rob Merkel, vice president, IBM Watson Group Healthcare Leader. "We're excited by our continued partnership with Cleveland Clinic. Together we aim to advance a new era of cognitive computing that will aide in the acceleration of new discoveries and bring forward new breakthroughs in personalized medicine."

Provided by IBM

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