

Munich Leukemia Laboratory Selects IBM Watson and Illumina for Research Collaboration to Advance Diagnostics and Develop Personalized Treatment Tools for Leukemia & Lymphoma

Watson Takes on Hematology Research in First Collaboration in Germany; Effort Marks Illumina's First European Adopter of NovaSeq™

MUNICH - 08 Mar 2017: Munich Leukemia Laboratory (MLL), a state-of-the-art leukemia and lymphoma diagnostic and research laboratory based in Munich, has teamed up with IBM (NYSE: [IBM](#)) and Illumina, Inc. (NASDAQ: [ILMN](#)) to help build a new cognitive technology prototype that aims to help researchers improve leukemia treatment.

The prevalence of leukemia is on the rise in Europe, with 15,000 new diagnoses each year in Germany alone. (1) MLL will use NovaSeq technology from Illumina, the global leader in next-generation sequencing technology, to sequence samples from its biobank of more than 500,000 cases. MLL researchers then plan to use Watson to help analyze the genomic data alongside other data sources. The project intends to include innovative testing processes such as automated phenotyping and genotyping including whole genome sequencing (WGS) and transcriptome sequencing (RNASeq) in 5,000 cases.

The ultimate goal is to develop a Watson-based technology prototype that can help analyze genomic and phenotypic data alongside medical literature, guidelines and study results, providing clinicians with information relevant to leukemia care. Following successful development, the tool could also be made available to other laboratories in the future.

Prof. Torsten Haferlach, co-founder and CEO of MLL, states, "We at MLL are excited to combine our data and knowledge, IBM's cognitive computing tools, and Illumina's new sequencing platform to create a new era of insights in leukemia biology that will also drive more personalized treatment strategies."

"As a company committed to improving human health, we are delighted to welcome MLL as our first European customer to adopt the NovaSeq platform," said Paula Dowdy, Senior Vice President and General Manager, Illumina, Europe, Middle East, and Africa. "MLL's strategic decision to create a future path for whole-genome sequencing to help promote better health outcomes, reflects one of Illumina's key strategies to connect genomics to the everyday lives of those living with cancer."

MLL will utilize Illumina's BaseSpace® Informatics Suite to be able to streamline data analysis, storage, data curation and aggregation. The BaseSpace Sequence Hub Frankfurt site will help MLL manage the data as the project scales and facilitates data transfer to IBM Watson. Additional tertiary analysis with BaseSpace Cohort Analyzer and BaseSpace Correlation Engine allows MLL's genomic data to be combined with other clinical data to enhance interpretation results.

"Cognitive computing is critical to help providers unlock the insights hidden in large data pools and scale their expertise in a global market through digital services," said Bart de Witte, director of digital health, IBM. "This research collaboration is indicative of the growing global market to create and implement new cognitive approaches to data-driven challenges for health systems that are increasingly overwhelmed by data."

Sources:

(1) European Leukemia Network: https://www.leukemia-net.org/content/home/index_eng.html.

About MLL

The Munich Leukemia Laboratory was founded in 2005 to take diagnostic responsibility for patients with leukemia and lymphoma for both in-patient and out-patient settings. The team of 150 hematologists, researchers and technicians works to optimize and refine diagnostics, including automation of laboratory procedures and improvements according to the established norms of EN ISO 15189 as well as national and international involvement in scientific projects and research trials. MLL is committed to expanding and improving high-quality diagnostics of hematological neoplasms, at the highest scientific and technical levels.

About IBM

IBM Watson is the first commercially available cognitive computing capability representing a new era in computing. The system, delivered through the cloud, analyzes high volumes of data, understands complex questions posed in natural language, and proposes evidence-based answers. Watson continuously learns, gaining in value and knowledge over time, from previous interactions. The IBM Watson Health unit helps improve the ability of doctors, researchers and insurers to innovate by surfacing insights from the massive amount of personal health data being created and shared daily. For more information on IBM Watson, visit: ibm.com/watson. For more information on IBM Watson Health, visit: ibm.com/watsonhealth.

About Illumina, Inc.

Illumina is improving human health by unlocking the power of the genome. Our focus on innovation has established us as the global leader in DNA sequencing and array-based technologies, serving customers in the research, clinical and applied markets. Our products are used for applications in the life sciences, oncology, reproductive health, agriculture, and other emerging segments. To learn more, visit www.illumina.com and follow [@illumina](https://twitter.com/illumina).

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