

ILLUMINA, NEW YORK HEALTHCARE PROVIDERS, NYGC PARTNER ON CLINICAL WHOLE-GENOME SEQUENCING

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NEW YORK – Illumina, Weill Cornell Medicine, New York-Presbyterian Hospital, and the New York Genome Center (NYGC) on Thursday announced a collaboration to provide clinical whole-genome sequencing (WGS) to "thousands" of consenting patients in order to identify genetic disease drivers and potential therapies.

The initiative "aims to evaluate the diagnostic potential of WGS at scale" and across multiple diseases, the partners said in a statement, to "better understand health problems and potential disease risks of individual patients and to design more effective treatments, including the choice of specific drugs and their dosing."

Investigators will study the feasibility and viability of implementing WGS within an academic medical center that is part of a major metropolitan healthcare system in the US. Doctors at Weill Cornell Medical Center will offer qualifying patients the option to have their genomes sequenced as part of their diagnostic workups. NYGC will analyze the genomes using its CLEP-approved clinical genomic tests on Illumina's next-generation sequencing platforms.

Board-certified molecular geneticists at NYGC will interpret and share the results with ordering physicians, who will then share them with their patients. The initiative will focus on cancer, cardiovascular, metabolic, and neurodegenerative diseases.

Patients who qualify for the initiative will receive testing for free. Enrolled patients will consent to participation in human research and to having their genomes sequenced but will own their results and will be able to access them as part of their clinical record, if desired. Patients will have the option to share deidentified results with researchers at Weill Cornell, other academic institutions, and, potentially, industry collaborators. "WGS patient data will never be sold to outside parties," the partners said.

Financial and other details of the project were not disclosed. "This effort is jointly supported by Illumina, Weill Cornell Medicine, and New York-Presbyterian," an Illumina spokesperson said in an email.

"This project and the network of participating institutions will be the largest of its kind for clinical whole-genome sequencing in the US, and may lead to key medical and scientific advances that improve patients' lives for generations to come," Olivier Elemento, director of the Englander Institute for Precision Medicine at Weill Cornell Medicine, said in a statement.

The initiative follows an Illumina [partnership in the UK with Genomics England](#), signed in January, to sequence up to 500,000 "whole genome equivalents" to support disease diagnosis and inform treatment.

Weill Cornell Medicine and the New York Genome Center have [previously collaborated](#) on a WGS-based cancer recurrence assay using circulating tumor DNA.