Company sequences whole human genome for $1,700

(Reuters) - Want to know your entire DNA sequence? A California company has done it for as little as $1,700.

Privately held Complete Genomics says it can do a better quality, usable genome map for about $4,400 -- compared with the $100 million the Human Genome Project spent to complete the first sequencing of the human genome in 2000.

"Whole-genome sequencing costs have dropped from the more than $100 million cost of the first human genomes to the point where individual labs have generated genome sequences in a matter of months for material costs of as low as $48,000," the company's Radoje Drmanac and colleagues reported in the journal Science.

"This high-quality, cost-effective approach to genome sequencing will allow researchers to study complete genomes from hundreds of patients with a disease to advance the understanding of the genetic causes of that disease, with an end to preventing and treating common human ailments," said Cliff Reid, chief executive officer of Complete Genomics.

Two of the people whose DNA was mapped had taken part in an international sequencing project called the International HapMap project -- a man of European descent and a Yoruban female.

The third came from a white man taking part in the Personal Genome Project, an online registry in which people are asked to donate both their DNA and a little money.

Genome sequencing is still early stage science. While researchers can get the code, figuring out what it means is a different matter.

Genomics pioneer Craig Venter had his own genome sequenced -- at a cost of "several million" dollars -- and found the analysis could only show he was likely to have blue eyes, for instance. Venter does have blue eyes.

Last month Pauline Ng of the J. Craig Venter Institute in San Diego and Sarah Murray of Scripps Translational Science Institute in La Jolla, California, tested kits provided by California-based firms Navigenics Inc, a private company, and 23andMe, backed by Google Inc.

They found they varied in predicting disease risk.

Complete Genomics and The Institute for Systems Biology said earlier this week

they plan to sequence the genomes of 100 people to try and find insights into Huntington's disease.

Scientists also use a technique called genome-wide association to try to find genes that no one suspected were involved in various diseases.

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