COMPLETE GENOMICS

RESEARCHERS TRACK DOWN THE CAUSES OF DISEASES WITHOUT EXPENSIVE INVESTMENT.

Project URL: completegenomics.com/public-data
Project Twitter: @CompleteGenomic

- Health
- Data
- Physical Computing

Twenty years ago the idea of sequencing the whole human genome seemed like such a difficult task that achieving it required unprecedented levels of all up
Federal Express to courier a laboratory sample to a gene sequencing and analysis centre and get the results back within a few days at a fraction of the cost of an in-house solution.

This rapid service is the creation of a US start-up, now owned in China, called Complete Genomics. The organisation aims to allow many more researchers to start using large-scale genomic analysis, to track down the causes of diseases, without having to invest in their own sequencing instruments, high-performance computing resources or specialised personnel.

The effort to map the human genome was just the start of a long process to unravel how complex combinations of genes can trigger disease. In many diseases, multiple genes each make a subtle contribution to a person’s susceptibility to illness and their response to drug treatment. Researchers targeting particular diseases and their treatments will potentially be able to use

ular
genes to focus on.

life
by allowing many more researchers to probe and analyse it. As researchers ask more questions, by pursuing the causes of different diseases, they also contribute to building up large, comparable data sets, making it possible to identify and compare the particular patterns in a set of genes. Any medical researcher can receive genomic data at a fraction of the cost of an in-house service - assembled and annotated, ready for biological interpretation, thus speeding up efforts to tackle critical diseases.

Image 'Lawrence Berkeley Nat'l Lab' courtesy of Roy Kaltschmidt

Last updated: 09th of May, 2014