SAN FRANCISCO BUSINESS TIMES

HEALTH CARE

Gene sequencing software company helps doctors personalize medicine

NATHAN FALSTREAU

As genetic analysis has seen astonishing progress in the past decade, so too has Oakland-based Fabric Genomics. The company sells software that analyzes whole genomes, exomes and gene panels in less than an hour. The goal of the software is to provide insights into hereditary diseases and cancers and those insights help doctors personalize treatments and know if a patient is genetically predisposed to certain cancers, for example. Its customers are labs, hospitals and researchers, and it's seen revenue grow tenfold since 2015.

So far, the company's genomic data process and algorithmic tools have been licensed by more than 1,000 academic institutions and laboratories globally. The company earns its revenue through its Software-as-a-Service platform.

One of the company's biggest challenges has been that its customers often work with other clients in medicine that are slow to adopt new technologies.

"The general growth of the market and adopting new genomic technology is a huge barrier for our customers," said CEO Martin Reese.

However, Reese notes that with added pressures on the healthcare system to get into prediction and prevention care "that is drastically beginning to change." Additionally, as Fabric Genomics continues to add diagnostics labs involved in molecular and predictive testing as clients, Reese views the "genomics space as the fastest growing in that field."

As such, the company has seen significant growth since its first commercial launch in 2014

and has expanded from 14 employees to 35.The company has also raised \$30 million in venture funding from ARTIS Ventures, Acadia Woods Partners and Buchanan Investments. It closed \$23 million in Series B funding in 2016.

Reese, who previously founded Berkeley-based computational genomics company Neomorphic, which was later acquired by GeneChip-maker Affymetrix, said that he was surprised by Fabric Genomic's growth in the international market. The company has 15 clients in 15 countries outside the U.S.

Reese said the company received international exposure from its work with the UK's 100,000 Genomes Project. That project is sequencing 100,000 DNA codes of patients with the hope of better, earlier diagnosis and personalized care for cancers and rare and infectious diseases.

"Fabric Genomics' technology and expertise help us to achieve our mission of interpreting genomic data on an industrial scale," said Dr. Damian Smedley, director of genomic interpretation at Genomics England. "We are very grateful for the team's fast turnaround times and support, which means that NHS clinicians and patients in the 100,000 Genomes Project can be provided with meaningful clinical information."

Reese described Fabric Genomics as replacing the informatics processing that labs are usually tasked with maintaining.

"We provide the software; the labs provide the genomics data," said Reese. "We then do machine learning with the data that gets pushed back into the diagnostic labs. That allows for precision medicine on the front end to make appropriate clinical decisions."



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FABRIC GENOMICS

HQ: Oakland

What it does: Fabric Genomics provides software that enables clinical labs, hospital systems and population sequencing programs to deliver more accurate genomic diagnoses, with faster turnaround times.

CEO: Martin Reese

Founders: Martin Reese, John Stuelpnagel, Edward Kiruluta and Paul Billings

Founded: 2009 Employees: 35

Clients: LabCorp, ARUP, University of Pittsburgh Medical Center, Intermountain and University of Utah among others

Website: fabricgenomics.com