

# Genomics: Cracking The Code

Like

Why only a handful of new-gen startups are venturing into the genomics research landscape in India



Country   Accounting Courses   Stock Picks   Free Samples   100k   Academic Institutions   Antivirus Software   infolinks

India’s top genomics players

Company	Year of foundation
MedGenome	2013
Strand Life Sciences	2000
Datar Cancer Genomics	1992
GenePath DX	2012
Gene Global Corp	2013
Mapmygenome	2013
XCode Life Sciences	2010
Swagene	2014
InterpretOmics	2009

Photo Credit : Shutterstock,

07 November, 2017  
by C H Unnikrishnan

Print this article

TI Font size 16

Imagine this: what if you could predict your future illnesses and nip them in the bud or if you could prevent the possibility of becoming a cancer victim? Or what if, you could know how well you respond to a medicine before you decide to take it, or what if, you could save your baby from hereditary disorders for his/her entire life at the foetal stage?

This is not a script from any sci-fi movie. Genomics, the science that can define the health and heal of each individual in a precise way by closely looking at the genetic make-up or DNA, is forecasted to surpass \$23 billion in market value by 2024 globally. However, India, the land of maximum genetic diversity, hasn’t been able to achieve much in this field, at least not yet.

A 2017 report from a London-based genomic initiative confirms that genetic data from India accounts for just about 0.2 per cent of what has been collected till date. India, known as ‘pharmacy of the world’, with its pharma and biotech prowess, is yet to explore its vast genetic diversity to be part of an imminent healthcare revolution — the precision or personalised medicine.

### Making Inroads

Surprisingly, only a handful of startups are taking the lead in this life science revolution in India. Genomics, the most promising area of bio-technology, is yet to get adequate industry backing, especially from the large and established pharma and biotech players. Even the government organisations have not shown efforts to provide the much needed boost to the sector, which is in complete contradiction with the trends in the West and even countries like China and Korea in Asia.

New generation companies, along with half a dozen diagnostics providers, have already started making waves in the Indian market. New generation companies such as Bangalore-based MedGenome Labs and Strand Life Sciences, and Mumbai’s Datar Cancer Genetics and Pune’s Genepath DX are into the fully integrated play ranging from genetic research to DNA sequencing and diagnostics solution development. The genetic research by the top players among these entities have also made significant progress in gene mapping with about 50,000 Indian samples.

Of course, the entry for the start-ups were not easy. The initial investment for setting up a good genomics lab will be in excess of \$10 million, a tall order for startups, but not a barrier for large pharma or life sciences companies, say industry experts.

“It is indeed surprising that only a few companies are leveraging genomics in India. It is also sad that neither the Indian government nor the domestic pharma and biotech leaders are paying much attention to the potential of genomics,” says Sam Santhosh, founder and Chairman of MedGenome.

Experts also stipulate the lack of interest due to a combination of factors such as absence of interdisciplinary skills and general aversion to risk taking among the large pharma and biotech companies.

“Genomics is not a pure biology or life sciences domain. Considerable software and bioinformatics skills are needed, which has been traditionally not available in the life sciences industry,” reasons Santhosh.

“It would have been great if there are big names to back the initiatives like genetic studies, sampling, clinical trials, etc., to scale up the discovery process and market development in India,” says Strand’s CMD Vijay Chandru.

### Collaborate and Grow

Low awareness among people and lesser initiatives at the government and organisational level to create an ecosystem are the initial challenges that kills the commercial interest among industry players.

“In the West, there is active collaboration among educational institutions, government and the industry, which ensures that scientific discoveries are translated quickly to benefit society and create wealth. In India most academic institutions do not collaborate with the industry and remain secluded in their glass towers,” says Santhosh.

Many in the industry also believe that Indian pharma, which did a commendable job in the generic drug industry by focusing on manufacturing APIs and drugs of high quality at low price and capturing the global market, has become a victim of their own success. This success made the local pharma players wary of taking risk in new areas since the same investment would give them better short-term returns.

“Also, a lot of them had become public and the investment community would also give better rewards for quarterly progress,” points out Santhosh.

A senior executive from a top biotech company, who did not want to be identified, agrees. “Taking new risks, that too in an area where fresh skills and investments needs to be created, is often a taboo under the quarterly appraisal system,” he says

### At The Tipping Point

The industry is currently at a point where the technology is available, costs are coming down and people awareness and medical community acceptance are increasing. Going by the current pace of growth, the \$10 million worth market for genomics-driven diagnostics (cancer mapping, liquid biopsy, parental screening, etc.) in India would touch \$100 million in the next two years. The targeted size of genomics-based diagnostics market in the country is to the tune of 3 lakh tests at present and each test costs about Rs 20,000 on an average.

The total venture capital investment in Indian genomics industry has been around \$100 million and it is growing. Most of the companies have now started raising second round of funding from the same investors.

While, genetic sampling on Indian population is also expanding with several international research initiatives, including GenomeAsia 100K and London-based Three Nation (Britain, India, Singapore) initiative Beacon, among others, actively involved in India.

“The next few decades will belong to genomics and precision or personalised medicine and we expect India to be a significant part of this revolution,” says Chandru.

Quick Bytes

View more

5 Unknown Facts About Demonetisation  
read more

5 Things To Know About India's Subsonic Cruise missile Nirbhay  
read more

Paradise Papers: 5 Things To Know  
read more

Five Versions Of Khichdi You Should Try  
read more

6 things You Should Not Do During Flood Situation  
read more

Five Major Investments By Mukesh Ambani  
read more

BW TV

View more

How to exit from wrong insurance policy  
read more

Indian Government has enough funds to fuel the startups  
read more

Airlift Famed Feryna Wazheir gives a message to her fans on World Mental Health Day  
read more

Jia Singh, Wellness Consultant Talks About The Importance of Mental Health  
read more

How to exit from wrong insurance policy  
read more

Indian Government has enough funds to fuel the startups  
read more

Airlift Famed Feryna Wazheir gives a message to her fans on World Mental Health Day  
read more

Jia Singh, Wellness Consultant Talks About The Importance of Mental Health  
read more

BW TV

View more

How to exit from wrong insurance policy  
read more

Indian Government has enough funds to fuel the startups  
read more

Airlift Famed Feryna Wazheir gives a message to her fans on World Mental Health Day  
read more

Jia Singh, Wellness Consultant Talks About The Importance of Mental Health  
read more