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CEO Of India's mRNA Pioneer Gennova On Cancer Vaccines, VC Interest

Pan-Coronavirus Vaccine In The Works

by Vibha Ravi

Founder CEO Sanjay Singh tells *Scrip* about Gennova Biopharma's preliminary talks with investors looking to grab a piece of the action post approval of its mRNA vaccine against COVID-19. As the company considers use of the technology in making vaccines against cancer and infectious diseases, it will also expand manufacturing

"In science, nobody can say no to any possibility," says Sanjay Singh, founder CEO of *Gennova Biopharmaceuticals Ltd* during an interview with *Scrip*. It's perhaps this belief that led him and his team to develop India's first, and the world's third mRNA vaccine.

Before he set up Gennova in 2006, Singh's drive to develop treatments for diseases like malaria and his tenure at the International Center for Genetic Engineering and Biotechnology led to a stint at The National Institutes of Health (NIH) in the US. Apart from heading the antigen research section at NIH's National Institute of Allergy and Infectious Diseases for a few years, he helped progress four recombinant vaccine candidates to Phase I clinical trials.

Armed with a PhD in biochemistry and global research experience, he focused on establishing innovative biomanufacturing technologies at Gennova, which led to commercialization of seven biotherapeutics in the cardiovascular, neurology, nephrology and oncology segments.

Singh counts the launch of biosimilar tenecteplase - at about one-third the price of innovator *Roche Holding AG*'s drug in India - as a significant moment, one that has helped save millions of lives.

The company secured a patent for a novel process to develop the drug against myocardial



GENNOVA BIOPHARMA FOUNDER CEO, SANJAY SINGH

infarction in multiple countries, including in the US. An additional patent for a new indication - acute ischemic stroke - for TNK-tPA was also granted in 38 countries including India, US and some European countries.

During this interview, he speaks on a host of topics, including funding prospects as the company seeks to expand manufacturing capacity.

As Gennova begins trials of an Omicron-targeted version of its vaccine in India, Omicron-adapted COVID-19 vaccine candidates from *Moderna, Inc.* and *Pfizer Inc./BioNTech SE* have been found to be less effective against the increasingly dominant BA.4 and BA.5 subvariants versus BA.1.

It's too early to say how Gemcovac-19, which unlike Comirnaty (tozinameran) and Spikevax (elasomeran) is self-amplifying, will fare against these sub-types, but as interest in mRNA technology grows, the *Emcure Pharmaceuticals Pvt Ltd.* subsidiary is receiving offers for acquisition of an equity stake.

If the \$3.2bn acquisition of <u>Translate Bio</u> by Sanofi and the \$780m one of <u>Exelead</u> by <u>Merck KGaA</u> are any indication, Gennova might have a pot of gold waiting at the end of the rainbow, in which case the man who started it all with a visit to mRNA vaccine partner <u>HDT Bio Corp.</u> would be over the moon.

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