

GBRC: '100 samples to be sequenced to study mutations'

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AHMEDABAD: The state government-funded Gujarat Biotechnology Research Centre (GBRC) has collected 100-plus samples of the Covid-19 virus from various parts of the state.

Analysis of the samples will give an insight into its characteristics and mutations, said C G Joshi, director of GBRC on Wednesday. He was speaking at a webinar 'Genome Sequencing in Search of a Vaccine for Coronavirus' organized by Gujarat Council on Science & Technology (GUJCOST).

Analysis of the viral strain in Gujarat is of great interest to the state government and the scientific community as mortality rate in the state is the highest among Indian states so far.

GBRC was among the early public sector labs to sequence the Covid-19 virus genome in India in mid-April. The officials at the lab indicated that they needed to study more samples to understand the behaviour of virus in the state and understand the high mortality and virulence.

"So far, we have collected 100-plus samples in Gujarat and are analysing them to understand mutations. We will be able to understand country and region-wise mutations and differentiate between geographic locations," said Joshi, adding that it would also help identify mutations taking place in 'hotspot regions.'

Joshi talked about different methods of sequencing and how understanding the virus is the first step to developing a vaccine. GBRC has signed MoUs with three labs – Hester Bioscience, Supratech Micropath Laboratory and Vekaria Healthcare – for vaccine development and in-depth research on viral strains.

"GBRC has submitted 56 genomes to GISAID (for Covid-19 research). India has submitted 185 so far," said Joshi. GISAID is a global government-private partnership that is collecting sequencing for quicker development of vaccines. Joshi said that at least 30 attempts are being made in India to find a vaccine for Covid-19.

About the difficulty in developing a vaccine, Joshi said that the virus is mutating with every attack. "According to one study, it is mutating twice every month. When movements are restricted, there are better chances that the virus situation can be stabilized," he said, adding that hotspot analysis is crucial to find reference virus strains against which the vaccine can be developed.