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As 'O' cases rise, West Bengal gets one more genome sequencing centre

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KOLKATA: The Indian Institute of Chemical Biology has been asked by the state government to do genome sequencing for Omicron from the Corona samples that is being sent to it for testing. This is a recent move of the state government and work on the samples has just started.

CORONA STRAIN CHECK





- The virus has RNA as genetic material
- RNA is essentially a long chain of molecules joined one after another, each called a nucleotide. RNA is a polymer of nucleotides, which are of 4 types (A, U, G, C). RNA is composed of various combinations of these nucleotides
- Sequencing means to know the exact order of arrangement of nucleotides.
 Any change in this order or sequence of nucleotides can be determined.
 Particular changes or mutations can be identified and a strain of virus, including that of Omicron, can be detected

Three scientists of IICB, Partha Chakrabarti, Saikat Chakrabarti and Siddik Sardar are working on the samples as part of the Insacog (Indian Sars-Cov-2 Genomics Sequencing Consortium) programme. IICB and NIBMG, Kalyani are responsible for sequencing viral genome in the state, the scientists said.

There is RNA as genetic material and sequencing means to know the exact order of the arrangement of the nucleotides. "We will look for changes in this order or sequence. Particular changes or mutations can be identified and the strain of virus can be found including omicron," explained Partha Chakrabarti.

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Once Omicron samples are isolated from the rest of the Covid samples with the help of this sequencing, it will be possible to isolate the patients and contact trace them. "That way we will be able to contain the spread to an extent," Chakrabarti explained. "When more and more samples come in it will be possible for us to identify localities where the infection spread is high and we will be able to create micro containment zones to prevent the spread," he added.

"From what we have learnt already, the strain spreads fast but might not be as deadly as some other strains. We will need to study the cause for that too. We are happy that we have been chosen for this work because we will be able to contribute towards the latest challenge that the country is facing," Chakrabarti said. However, no formal letter has been given to IICB for this genome sequencing by the state government but it is a default choice for any sequencing programme.