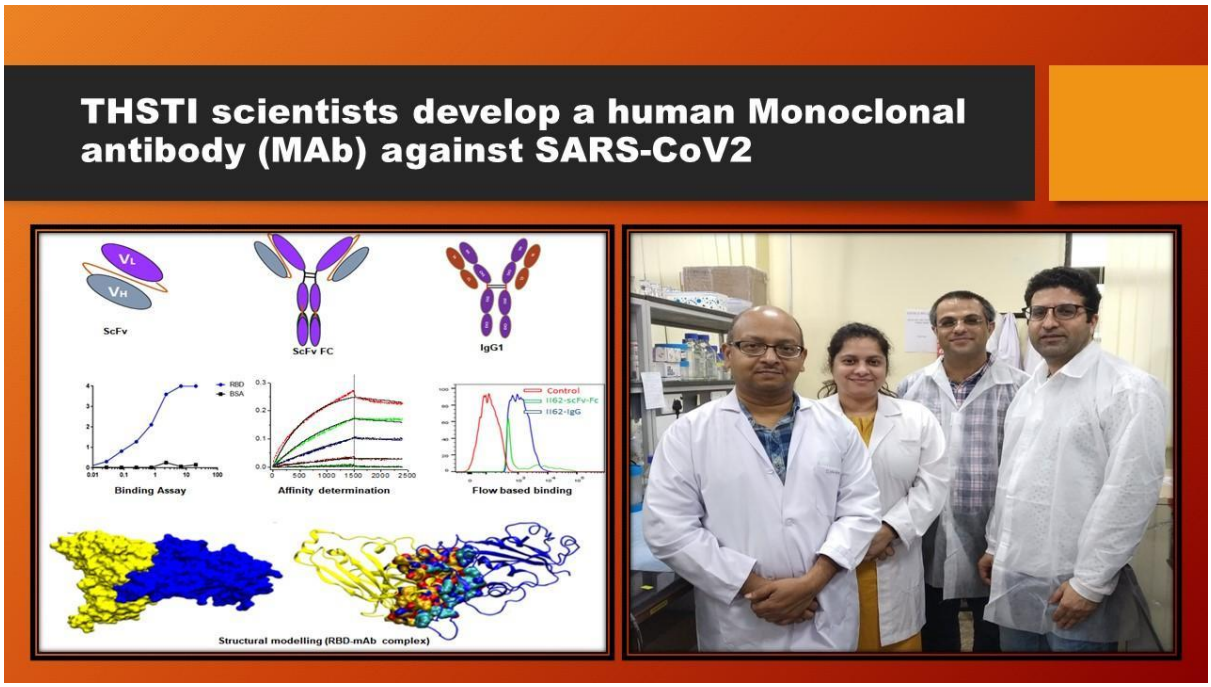
DBT-THSTI scientists take a step towards a therapy for SARS-CoV2

New Delhi, Aug 10: A team of scientists from the Infection and Immunity Programme of the Department of Biotechnology's Translational Health Science and Technology Institute (DBT-THSTI), led by Dr. Rajesh Kumar, has developed a human monoclonal antibody (mAb) against the receptor-binding domain (RBD) of SARS-CoV2. The monoclonal antibody has been shown to bind to the receptor-binding domain (RBD) protein of SARS-CoV2 with high affinity and specificity. The RBD of the spike protein of SARS-CoV2 is the primary target for neutralizing antibodies to block infection.



The team hopes the new development will facilitate COVID-19 research activities across the country.It has developed different formats of this mAb - scFv, scFv-Fc, and IgG1 against COVID-19. This well-established platform will allow isolating neutralizing antibodies against COVID-19, which might be helpful as an alternate therapeutic.

Further, the availability of an extensive array of SARS-CoV2 specific monoclonal antibodies can help design vaccines through structural vaccinology.This part of the research work has been submitted to a peer-reviewed journal for consideration. The research is funded by DBT.

The other co-investigators in the project are Drs. Shubbir Ahmad, Sweety Samal, Tripti Shrivastava, Hilal Ahmad, Shailendra Asthana, Chandresh Sharma, Shailendra Mani, and Adrash Chiranjivi.

Contact details: Dr. Siuli Mitra (smitra@thsti.res.in)

THSTI website: https://thsti.res.in/