



Ministry of Science & Technology

India's first CRISPR Covid-19 test, developed by the Tata Group and CSIR-IGIB, approved for use in India

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The Tata CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats) test, powered by CSIR-IGIB (*Institute of Genomics and Integrative Biology*) FELUDA, received regulatory approvals today from the Drug Controller General of India (DCGI) for commercial launch, as per ICMR guidelines, meeting high quality benchmarks with 96% sensitivity and 98% specificity for detecting the novel coronavirus. This test uses an indigenously developed, cutting-edge CRISPR technology for detection of the genomic sequence of SARS-CoV-2 virus. CRISPR is a genome editing technology to diagnosing diseases.

The Tata CRISPR test is the world's first diagnostic test to deploy a specially adapted Cas9 protein to successfully detect the virus causing Covid-19. This marks a significant achievement for the Indian scientific community, moving from R&D to a high-accuracy, scalable and reliable test in less than 100 days. The Tata CRISPR test achieves accuracy levels of traditional RT-PCR tests, with quicker turnaround time, less expensive equipment, and better ease of use. Moreover, CRISPR is a futuristic technology that can also be configured for detection of multiple other pathogens in the future.

The effort is the result of a fruitful collaboration between the scientific community and industry. The Tata Group has worked closely with CSIR-IGIB and ICMR to create a high-quality test that will help the nation ramp up Covid-19 testing quickly and economically, with a 'Made in India' product that is safe, reliable, affordable, and accessible.

Commenting on the development, Girish Krishnamurthy, CEO, TATA Medical and Diagnostics Ltd, said, "The approval for the Tata CRISPR test for COVID-19 will give a boost to the country's efforts in fighting the global pandemic. The commercialization of the Tata CRISPR test reflects the tremendous R&D talent in the country, which can collaborate to transform India's contributions to the global healthcare and scientific research world."

Dr Shekhar C Mande, DG-CSIR complimented the CSIR-IGIB team of scientists and students, TATA Sons and DCGI for the exemplary work and collaboration carried out during the current pandemic leading to the approval of the novel diagnostic kit and paving the path for further innovations towards making India self-reliant.

Dr Anurag Agrawal, Director CSIR-IGIB expressed delight that work started by CSIR under the sickle cell mission for genome diagnostics and therapeutics led to new knowledge that could be harnessed to quickly develop new diagnostic test for SARS-CoV-2. He emphasized that this



shows the interconnectedness of scientific knowledge and technology and the innovation of the young research team led by Dr Debojyoti Chakraborty and Dr SouvikMaiti.

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