

TECHNOLOGY TRANSFER OF CHITRA MULTIPLEX RT-PCR KIT for COVID 19 DETECTION to HUWEL LIFESCIENCES PVT LTD, Hyderabad



A Technology Transfer agreement for CHITRA Multiplex RT-PCR Kit for COVID 19 detection was signed by **Dr K. Jayakumar, Director, SCTIMST** and **Dr Rachana Tripathi, Founder Director, Huwel Lifesciences Pvt Ltd, Hyderabad, Telengana** to commercialize the kit. Huwel Lifesciences (Huwel stands for "Human welfare") is an Indian bioscience company with a good share in India's covid RT-PCR kit market. The company has facilities to produce the enzymes and primers in-house. Availing the technology from SCTIMST will help the company expand the targets of Covid genes for accurate detection.

The kit developed by SCTIMST (PI : **Dr T. Anoop Kumar, Scientist-G, Molecular Medicine Lab, BMT wing**) targets two SARS CoV2 genes: RdRp and ORFb-nsp14, and the human RNase P gene as the internal control. The kit is based on multiplex Taqman chemistry, amplifying all three genes in a single reaction. The amplification time for the assay is 45 minutes, besides the time required for the RNA isolation from nasopharyngeal swab samples. ICMR validated this kit at the National Institute of Virology, Pune, and found it satisfactory.

Various studies have shown that RdRp and ORF1b-nsp14 genes are more sensitive in detecting Covid19. Because the pandemic is going through a second wave, there is a significant concern about various mutant strains. Using two highly accurate confirmatory genes like RdRp and ORF-nsp14, will give precise results. Moreover, the ORF-nsp14 is one of the least mutated genes in Covid19. Currently, there are no kits in the market having ORF-nsp14 as the target.

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