“TDB-DST supports M/s Huwel Lifesciences Private Limited, Telangana for Validation and Commercialization of Rapid Real time PCR reagents for storage and transport at room temperature”.

“TDB-DST approves support to M/s Huwel Lifesciences (Telangana), the company aims to develop RT-PCR reagents that can stored & transported at room temperature.”

Posted On: 29 MAR 2023 5:52PM by PIB Delhi

Molecular biology has revolutionized the healthcare system by providing rapid and timely diagnosis to ease the treatment modalities. The high-demand for molecular diagnosis is primarily driven by an increase in incidence of life-threatening diseases like cancer, infectious diseases, diabetes and neurological disorders. Molecular diagnostics is thus referred to as the detection of genomic variants, aiming to facilitate detection, diagnosis, sub classification, prognosis, and monitoring response to therapy. Real time RT-PCR is a platform technology used in amplification of DNA and RNA and its detection on a real time basis.

The Technology Development Board, a statutory body under the Department of Science & Technology, Govt. of India inked the agreement with M/s Huwel Lifesciences Private Limited, Telangana for ‘Validation and Commercialization of Rapid Real time PCR reagents for storage and transport at room temperature’. The board today has approved a support of ₹15 crores out of the total project cost of ₹40 crores.

Pandemic COVID-19 has changed the perspective of molecular testing. RT-PCR has been the gold standard for COVID-19 testing globally and the RT- PCR machine has reached district level hospitals in India. As the

load of covid testing has come down significantly, these machines can now be put to use in screening various infections, cancers and genetic diseases other than covid. However, current RT-PCR reagents need to be transported and stored at sub-zero (-20) temperatures. Owing to the varied climatic and socio-economic conditions of our country, it is a challenging task for shipping and storage in tier 2 & tier 3 towns. Cost of dry ice shipping and improper storage has been hampering the implementation of RT-PCR testing for disease diagnosis.

To overcome the above difficulty, TDB has extended financial assistance to the company M/s Huwel Lifesciences, which has developed a room temperature stable RT-PCR reagents with following specifications:

1. Rapid RT PCR completed in 30-35 min.

2. Lyophilized, stable at room temperature

a. Stored at room temperature

b. Transported at room temperature

3. Economical

4. Easy to use

5. Sensitive

6. Highly specific

7. Suitable for field testing

8. Single test for multiple diseases (Multiplex)

9. Can be performed on any open platform RT-PCR machines

Moreover, the kit holds great market potential, as it may open up the large segment of markets in tier 2 and tier 3 towns and reduce shipment costs significantly. Under the project, the company aims to set up a cGMP manufacturing facility to produce PCR reagents stabilized at room temperature and also RT PCR kits using such reagents both for domestic and international market.

M/s Huwel Lifesciences Pvt. Ltd. was established in February 2015 as a high-end molecular diagnostics kit manufacturer which enables reference labs and hospitals to provide reliable and high-quality diagnostics services to clinicians. Based on the products developed and expertise available, the company proposes to manufacture and commercialize Rapid real time PCR based room temperature stable kits for detection and quantitation of infections and cancers.

Sh. Rajesh Kumar Pathak, IP&TAFS, Secretary, TDB said that, “Our approach at TDB has always been to support technologies that have the ability to improve upon the existing process at cost effective way thereby making it more accessible to common man. M/s Huwel Lifesciences has come up with a similar innovation that have the ability to transform the existing practice of transporting and storage of current RT-PCR reagents at sub-zero (-20 Degrees) temp to room temperature thereby making it reasonable, cost-effective and accessible to masses in Tier 2 & 3 cities. I wish for much more success to the company.”

*****

PK

(Release ID: 1911914)