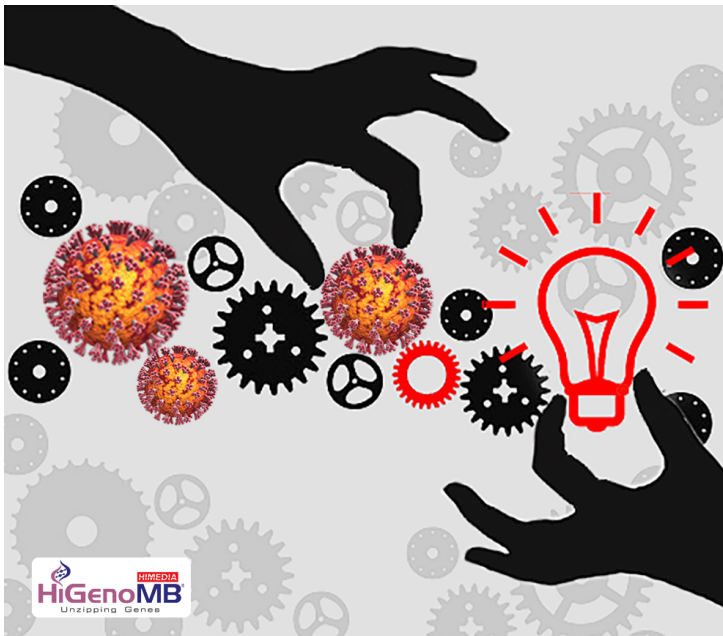


## Re-engineering HiGenoMB for COVID-19 diagnosis

01 December 2020 | Views

**HiMedia, today has become synonymous with being the only complete solution provider for COVID detection**



The COVID-19 pandemic came as a jolt to the world stalling lives, economies, health systems and daily routines. No health-care mechanisms could be prepared across the globe, however, the medical system in every country rediscovered themselves and rose to the impossible task to tackle this Pandemic.

Real time PCR (RT PCR) became the test of choice due to its superior sensitivity & specificity among all diagnostic tests for COVID19 as per WHO, CDC & EU ICMR (\*\*references attached). HiMedia Labs. Pvt. Ltd. are Indian manufacturers for more than last four decades, now referred to as the Make in India movement by the Honourable Prime Minister of India, have been the pioneers of RT PCR based Molecular diagnostic platforms in India.

HiMedia, today has become synonymous with being the only complete solution provider for COVID detection. HiMedia Labs. manufacturers and supplies Viral RNA Extraction kits, Real time PCR kits, Automated DNA/RNA Extraction systems, Pre filled Plates for Automated Instruments, Real time PCR instruments, Plastic ware, and other consumables related to COVID.

During the initial days into the COVID-19 pandemic with very few signs being observed globally, HiMedia's Molecular Biology Division – HiGenoMB re directed its R&D team towards development of COVID-19 diagnostic products. During the pandemic, HiGenoMB has developed and launched the following products:

? HiPurA Viral RNA Purification Kit (MB615) Spin- column based

? HiPurA Viral RNA Purification Kit (MB615M) Magnetic bead based

? InstaNX Mag Series of Automated DNA/RNA Extraction (Mag32 and Mag96)

? Pre-filled Plates for InstaNX Mag series (MB615 MPF 32 & 96)

? Hi-PCR Coronavirus (COVID-19) Multiplex Probe PCR Kit (MBPCR243)

It would be appropriate to say that HiPurA Viral RNA Purification Kit (MB615) Manual protocol was super validated during the COVID lockdown as it was the top product being sold in India for COVID detection.

Major investments in Automation to scale up production capacity was the first step taken up by the management to ensure continuous manufacturing of the reagents and columns and avoid any shortage in supply. Considering the gravity of the COVID pandemic, a full scale infrastructure plan accommodated with the latest technology was put in place to churn out maximum number of kits per day. Timely intervention of the top management further led to optimising the productivity of the existing team to pace the production and supply chain alike. Owing to the evolving demands of the market, the HiGenoMB R&D team developed more and more innovative products like the Magnetic Bead based automated extraction systems and pre-filled plates were developed. Fast but effective RnD plans and execution by the team was key in these testing times.

Fresh recruitment of research personnel and round the clock trials & analysis led to shorter product development time in the case of best in class magnetic kits. Improvement of key personnel in all departments generated out-of-the-box ideas to meet customer needs. The idea was to serve the Indian customer with the most unique product range which would make Detection of the virus more sensitive & reliable without compromising the ease in operation for technicians of all standards.

An example would be the Pre filled plates which were ready to use, making them most widely acceptable in a really short span. The user-friendliness of the Pre-filled plates helped cut down approximately one hour of the pre-processing time bringing it down by at least 75% of the total time taken otherwise. Custom designing as per customer needs led to the development of the most rapid extraction method in the market – Super 11 minute protocol. With the growing number of products being added to the COVID product catalogue it became necessary to update, distribute and spread out manufacturing & packing various products across different sites.

Single product manufacturing and packaging was centralized in the same site for independent functioning. This helped in increasing individual output and capacity of each site thereby meeting production demands of separate products under the HiGenoMB umbrella. Coordination and system-based approach form a fundamental part to achieve “Just in time” supply for all Indian customers. HiGenoMB and team HiMedia today is proud to have introduced effective Molecular Detection solutions in terms of both Manual and Automated platforms under the most tough working conditions with HiMedia’s research scientists also being affected by the COVID-19 but the rest of the team always stepped up in delivering them successfully to our nation. HiMedia and team is on the verge of conquering the COVID war with Molecular Diagnostics as the strong backbone to depend on for the future.

Authors-

Dr Rajas V Warke Director, Molecular Biology & Virology, HiMedia Labs. Pvt. Ltd. MBA, S. P. Jain Institute of Management, Mumbai, India PhD in Virology & Immunology, Massachusetts, USA

Dr Kavita M Khadke Director, Molecular Biology & Virology, HiMedia Labs. Pvt. Ltd. MD. Pathology (Gold Medalist), P.G.D. in Hospital Management & Medical Tourism