

H5N1 FLU DIAGNOSTIC KIT

DIAGNOSTIC KIT FOR H5N1



(From left)

- I) A sample of the flu diagnostic kit
- 2) Researchers from ETC working to deliver the next generation of breakthrough medicines

CHALLENGES

The H5N1 Avian Influenza virus is a highly contagious strain and its infection in humans can cause severe disease and death. Previously, detection of all existing strains of H5N1 in a single test was not possible. The gold standard for H5N1 detection, as recommended by the World Health Organization (WHO), is only able to detect 3 out of the 10 distinct genetic groups (clades 1,2,3).

OUR SOLUTION

Our scientists from the Experiential Therapeutics Centre (ETC) collaborated with clinicians from Singapore's Tan Tock Seng Hospital (TTSH) to develop the H5N1 detection kit, known as H5N1 Real-Time Reverse Transcription Polymerase Chain Reaction (RT-PCR) Assay. It is the first and only test kit in the market that can rapidly and independently detect all known strains of the H5N1 avian flu virus, with almost 100% accuracy.

BENEFITS

The H5N1 test kit is compatible with the 4-plex influenza diagnostic kit, previously developed by ETC as well. Adding the H5N1 assay allows for simultaneous detection and sub-typing of different types of influenza viruses (such as 2009H1N1, H3N2, H5N1, Flu A and Flu B) in a single test. A test can be completed within a few hours. Using such multiplex assays enables cost-savings for hospitals and clinicians and aids in preventing greater spread of the virus in the community.

APPLICATIONS

The detection kits have been licensed out to a local SME, AlTBiotech Pte Ltd. Currently, more than 20,000 units of the 4-plex influenza diagnostic kits have been used locally and regionally every year since 2009. The H5N1 flu diagnostic kit will likely replicate its success in usage by hospitals for infection control.



