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Singapore: A close collaboration between scientists from the Experimental Therapeutics Centre (ETC) under the Agency for Science and Technology Research (A*STAR) and clinicians from Tan Tock Seng Hospital (TTSH) has led to the development of the most comprehensive and rapid H5N1 bird flu test kit available to date. With this highly advanced kit, doctors can now rapidly detect all existing strains of the H5N1 viruses in a single test with almost 100 percent accuracy, within a few hours.

This is a big boost to public healthcare system and a great stride forward in pandemic preparedness against this highly infectious disease worldwide.

The bird flu virus, scientifically termed as the Avian Influenza virus, is lethal to the birds and normally does not transmit to humans. However, highly lethal and contagious strains such as H5N1 Avian Influenza A virus that can 'jump' from birds to humans have been reported to cause serious infections and even death rates as high as 60 percent in infected patients. Although anti-viral treatment is available, the potential for H5N1 bird flu virus to spark a pandemic remains a serious threat to public health as most humans do not have immunity to the H5N1 virus. Therefore, to successfully curb the spread of the disease during an outbreak, accuracy and speed of detection on the type of H5N1 virus is of essence for effective infection control intervention and patient management.

Co-developed by Dr Masafumi Inoue, a senior research scientist and project director of Technology Development from ETC and Dr Timothy Barkham, a senior consultant of Laboratory Medicine from TTSH, this newly launched H5N1 test kit has been clinically validated by several hospitals in Southeast Asia.

"We are excited to be able to contribute to the fight against H5N1 virus with our expertise and know-how. Our technology has greatly simplified and accelerated the process of detection and identification of new H5N1 variants. Such information is

especially critical when the virus mutates to become more dangerous, such as in drug resistance." said Dr Inoue.