

Veredus biochip can detect mutated strains of drug resistant TB

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Singapore: Veredus Laboratories, a leading supplier of innovative molecular diagnostic tools, launched VereMTB, a multiplexed molecular diagnostic chip capable of fast and accurate detection of *Mycobacterium tuberculosis* complex (MTBC) and its mutations, as well as nine other clinically relevant non-tuberculous mycobacterium. These mutations are responsible for resistance to multiple drugs and are reinvigorating the global spread of Tuberculosis.

Conventional methods of accurately identifying TB infections can take up to eight weeks. In contrast, VereMTB can complete the diagnosis and identify the specific mycobacterium causing the infection and drug resistance in less than three hours from natural sample, avoiding the need for culturing, which is the most time-consuming part of the traditional method. Additionally due to its compact size, the system can be deployed in a wide range of settings at point-of-need.

"In 2011, 8.7 million people were diagnosed with TB and 1.4 million people died from the disease. With its ranking by the World Health Organization as the second greatest killer from a single infectious agent worldwide, faster diagnosis and appropriate treatment of this highly infectious disease is critical," said Dr Rosemary Tan, CEO, Veredus Laboratories. "We believe VereMTB fulfills a crucial need in the timely diagnosis of TB and its multi-drug resistance thus ensuring proper treatment."

Based on STMicroelectronics' Lab-on-Chip technology, the VereMTB chip is currently undergoing evaluations by the Chinese Center for Disease Control and Preventionin, Beijing, China as part of their ongoing program to assess new technologies for TB diagnostics.

"At the main CDC National TB Reference Lab in Beijing, we have been evaluating VereMTB using samples, collected from across China with a special interest in detecting challenging multi-drug resistant strains that are difficult to detect using other methods," said Professor Zhao Yanlin, director, National TB Reference Laboratory, and deputy director, National Center for Tuberculosis Control and Prevention at the Chinese Center for Disease Control and Prevention.