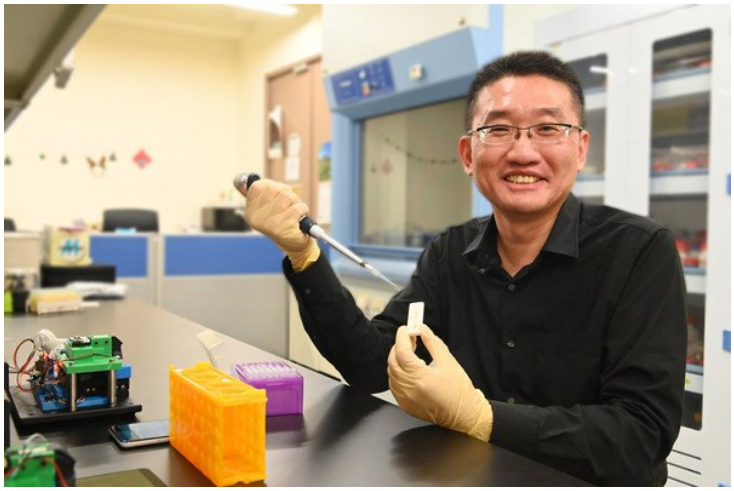
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China invents rapid test kit for potential severe COVID-19 cases

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Developed in collaboration with the Tri-Service General Hospital, the prototype is currently under the clinical validations at a number of medical centers



Professor Cheng Chao-Min of the Institute of Biomedical Engineering at National Tsing Hua University in China has recently developed a new covid-19 rapid test kit which allows the physician to provide timely treatment to high-risk patients, thereby making more efficient use of such critical equipment as respirators.

Developed in collaboration with the Tri-Service General Hospital, the prototype is currently under the clinical validations at a number of medical centers, and Cheng has applied for an emergency use authorization of US Food and Drug Administration.

According to Cheng, the key to prognosis is the cytokine interleukin-6 (IL-6) concentration in the patient's serum; soon after infection with the SARS-CoV-2 , the person's immune system begins to resist it, failing which, the immune system collapses, causing the production of a large amount of cytochrome, resulting in a "cytokine storm," which is the actual cause of death in many covid-19 cases. Some covid-19 patients enter the hospital in relatively good health, but their condition could soon deteriorates.

Thus the need to measure the IL-6 level in serum so as to quickly determine which patients require immediate treatment with either the endotracheal intubation or the respirator.

Cheng has demonstrated how the test is conducted by using a dropper to place a drop of serum containing high IL-6 concentration onto the white test strip about the size a person's finger; within two minutes two distinct red lines appear on the test strip, indicating that the patient's condition will soon become severe. If only one red line appears, it indicates that the patient's condition is mild.

Image caption- Professor Cheng Chao-Min of the Institute of Biomedical Engineering demonstrating the use of the covid-19 rapid test kit developed by his research team.