

# THE STRAITS TIMES

Coronavirus pandemic

## Other home-grown firms in virus fight



Local medical technology startup Respiree's wearable device which is used to measure vital parameters such as respiratory rate or blood oxygen levels. PHOTO: RESPIREE

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Local biotechnology firm ImmunoScape is not the only Agency for Science, Technology and Research (A\*Star) spin-off battling Covid-19. Here are three others.

### RESPIREE

Local medical technology start-up Respiree, founded last year, aims to save patients' lives by predicting clinical deterioration early. Its core technology is a sensor platform developed at the Singapore Bioimaging Consortium under A\*Star.

The platform combines cardio-respiratory sensing and artificial intelligence analytics to help predict and manage early onset of clinical deterioration, such as worsening conditions from respiratory diseases.

The Respiree solution uses two wearable devices, one attached to the chest and the other clipped over a finger, to measure vital parameters such as respiratory rate, breathing pattern variability and pulse oximetry, or blood oxygen level. The data from patients in isolated rooms is sent wirelessly to a unified dashboard in real time every five minutes.

Respiree has received approval from the Health Sciences Authority for the use of its medtech devices in Singapore and is in the process of securing approval from the US Food and Drug Administration to commercialise its product globally.

## LUCENCE

Founded in 2016, Lucence is a precision medicine company led by oncologist Tan Min-Han.

It has developed a saliva sample collection kit that allows for naso-oropharyngeal saliva - which is saliva in the back of the nose and throat - to be collected and transported at room temperature, instead of in a refrigerated environment, for Covid-19 testing.

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This kit, known as the Safer-Sample kit, contains a bottle of fluid that can be mixed with certain types of virus samples at the point of collection.

Invented at A\*Star's Institute of Bioengineering and Nanotechnology, the fluid can keep the samples stable at room temperature for up to a week, while also inactivating Sars-CoV-2, the virus which causes Covid-19, within 45 seconds of sample collection.

## MIRXES

Home-grown biotech company MiRXES manufactures diagnostic test kits for Covid-19.

The Fortitude Kit - as it is known - was co-developed with A\*Star and Tan Tock Seng Hospital.

It makes use of a process known as reverse transcription-polymerase chain reaction (RT-PCR) to detect the presence of Sars-CoV-2 viral genetic material in a patient sample.

The kits have already been exported to more than 40 countries.

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