



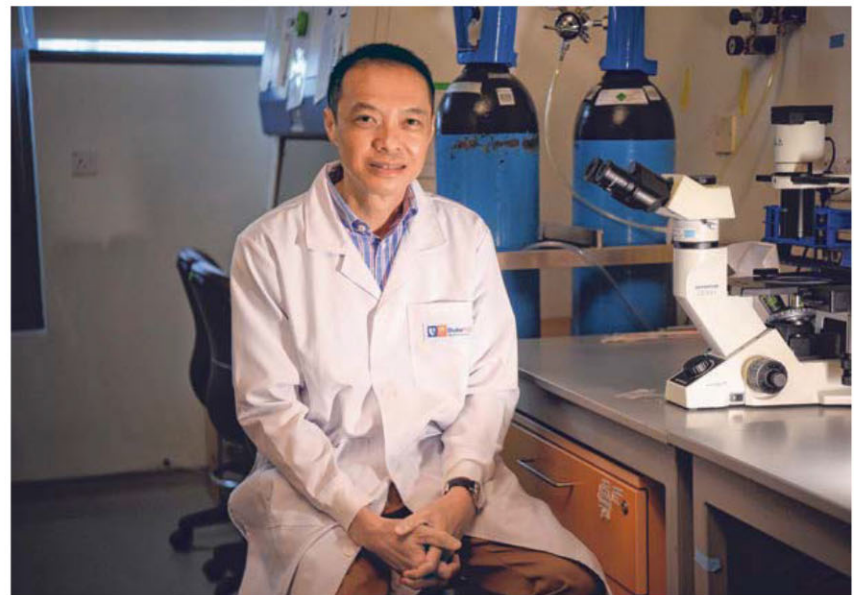
Mr Abdul Wahab, a nurse clinician in NCID's ICU, had refrained from visiting his elderly mother this year but did not expect she would die last month after developing heart failure. He saw her just three times this year. ST PHOTO: LIM YAOHUI



Mr Benson Ng felt compelled to sign up in May to be a swabber for Covid-19 tests, after seeing how ill his father became when he was infected with the coronavirus. His father was hospitalised for two weeks. ST PHOTO: CHONG JUN LIANG



Mr Nigel Quek, commanding officer at Certis' Integrated Quarantine Order Services, says it was gratifying to see his officers step up during the pandemic's peak when they had to serve many quarantine orders in dorms. ST PHOTO: KEVIN LIM



Duke-NUS Medical School's Professor Ooi Eng Eong, who specialises in emerging infectious diseases, is co-developer of Singapore's sole Sars-CoV-2 vaccine, which is currently undergoing human trials. ST PHOTO: MARK CHEONG

Front-liners in the battle against Covid-19 in S'pore

Shabana Begum

When the Covid-19 outbreak began in January, Mr Abdul Wahab, 54, a nurse clinician in the intensive care unit (ICU) at the National Centre for Infectious Diseases (NCID) refrained from visiting his elderly mother so as not to expose her to the virus.

He looked forward to hugging her once it ended.

When his mother developed heart failure in October, he was stuck between wanting to be by her side, and keeping her safe from anything that might be on him.

But he did not expect that she would die last month. Mr Wahab had seen his mother just three times this year – twice in hospital and once at home.

For their unselfish dedication to their jobs despite the personal sacrifices, Mr Wahab and four others have been nominated to represent the army of people on the front lines of the Covid-19 battle as *The Straits Times* Singaporean of the Year.

The virus kept Mr Wahab on his toes as he encountered new clinical challenges despite having worked in ICUs since 1996. He had to learn to use the extra-corporeal membrane oxygenation machine, which took over the functions of the hearts and lungs of the sickest patients.

For Mr Benson Ng, 32, who used to work in food retail, the menace of Covid-19 hit too close to home when his 58-year-old father fell ill with the virus in March.

His father received oxygen therapy as he was closely monitored in the ICU for a few days of his two-week hospitalisation. Even after

discharge, he suffered sleepless nights and muscle pain for about a month.

Seeing how ill his father became compelled Mr Ng to sign up in May to be a swabber for Covid-19 tests.

"The experience that my family went through made me very determined to do something to fight the virus," said Mr Ng.

From May to August, he was deployed in dormitories, taking nasal swabs from migrant workers. Since September, he has been part of a roving team that carries out routine testing in dorms and for hawkers stallholders, among others.

The other faces in the battle against the pandemic are Mr Nigel Quek, commanding officer at Certis' Integrated Quarantine Order Services; Professor Ooi Eng Eong, co-developer of Singapore's sole Sars-CoV-2 vaccine now undergoing human trials; and Professor Leo Yee Sin, executive director of NCID.

Mr Quek, 34, who supervises hundreds of quarantine order agents in Certis, said it was gratifying to see his officers step up, especially during the peak of the pandemic here, when they had to serve high numbers of quarantine orders in the dorms.

When Mr Quek was swamped with managing deployments, some of his officers stepped up to lead dorm operations for him.

The officers – whom Mr Quek code-named "Guardians" – shed their usual stern demeanour and did their best to reassure migrant workers, many of whom could not understand English and were afraid.

"Most of the workers had never used a thermometer before. We built rapport with a worker who

could converse in English to help us translate our instructions," said Mr Quek.

The work of a quarantine order agent includes issuing quarantine orders, checking if homes are suitable for quarantine, and escorting persons under quarantine to government quarantine facilities.

Serving quarantine orders was the first deployment for some new auxiliary police officers, said Mr Quek.

"The award nomination is a testament to all Certis front-liners' efforts to brave the unknown, and show professionalism and care in our operations and to the people under quarantine," he added.

Duke-NUS Medical School's Prof Ooi, who specialises in emerging infectious diseases, raced against time to develop a vaccine for the new coronavirus.

Where vaccine development typically takes five to 10 years, he and his team of 12 postdoctoral fellows and research assistants have had a hectic nine months working with American pharmaceutical company Arcturus Therapeutics to study the virus and conduct various vaccine-related studies simultaneously.

They are now analysing the blood samples of participants in phase one and two clinical trials, and the final phase of clinical trials for the Lunar-Covid vaccine is likely to start before the end of the year.

"I understand the pressure to succeed. Whatever we are doing is not just for the sake of science, but to help Singapore get out of this pandemic. We really had to put our best foot forward," said Prof Ooi.

He is also the co-founder of a biotech company that has devel-



Professor Leo Yee Sin, executive director of the National Centre for Infectious Diseases, which became the nerve centre of Singapore's battle against its biggest pandemic less than six months after it officially opened. ST PHOTO: SHINTARO TAY

oped a Covid-19 antibody drug, now in phase three trials, that could help patients recover faster.

NCID, which became the nerve centre of Singapore's battle against its biggest pandemic, less than six months after it officially opened in September last year, is helmed by Prof Leo.

"We designed NCID with the notion that it will handle an outbreak. It was just a matter of when. But I will say that we didn't really anticipate such a quick and successive encounter of emerging infections," she said.

Early last year saw a spike in measles cases and Singapore's first case of monkeypox infection. Then came the Covid-19 pandemic.

The institution was designed to be able to scale up its capacity from 330 beds to more than 500

when necessary.

During the pandemic, manpower was ramped up from about 600 to more than 2,000, with reinforcements coming from Tan Tock Seng Hospital and other institutions.

Admitting the majority of hospitalised Covid-19 cases to NCID enabled the institution to "know the enemy", Prof Leo said. They could "swiftly characterise the disease pattern, support in-depth research, and set up an extremely valuable research cohort" for the country.

For example, the centre's Covid-19 research workgroup discovered early that patients tend to shed a high viral load at the onset of infection, even when they are asymptomatic.

"This finding meant our preven-

tion measures had to be broader – everyone was told to wear masks and practise safe distancing."

Things are looking up as all Singaporeans and long-term residents will be able to get vaccinated by the end of next year.

But Prof Leo says the NCID's job is not yet done. "There are still a lot of unknowns about the disease, such as post-Covid-19 syndrome and reports of re-infections."

Post-Covid-19 or "long Covid" refers to long-lasting health effects of the virus that can last months or possibly even years.

Prof Leo added: "We don't know whether the virus will evolve and how the evolutions will affect us... We have to continue researching and studying this."

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