

## Covid-19 • NTU team wins \$2.8m research grant

A team of scientists from Nanyang Technological University (NTU) has won a US\$2 million (S\$2.8 million) grant to conduct pre-clinical research in Covid-19 drug development.

The grant is awarded by the United States-based National Institute of Allergy and Infectious Diseases (NIAID) and is worth a total of about US\$577 million (S\$800 million).

The pot of money has been distributed to nine teams, mainly made up of US researchers.

The Singapore team will focus on developing drugs for viruses that can cause pandemics, like dengue, Zika and the Sars-CoV-2 virus that causes Covid-19.

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Associate professor of infection and immunity Luo Dahai from the Nanyang Technological University Lee Kong Chian School of Medicine, who will lead a team of seven to 10 researchers, said part of the grant received from the United States' National Institute of Allergy and Infectious Diseases will be used to enhance understanding of viruses such as the Sars-CoV-2, dengue and Zika, and the stages of virus infection, among other things. PHOTO: NTU LEE KONG CHIAN SCHOOL OF MEDICINE

# NTU team gets \$2.8m grant for research into drugs for Covid-19, other dangerous viruses

Clara Chong

A team of scientists at Nanyang Technological University (NTU) has won a US\$2 million (S\$2.8 million) grant to conduct pre-clinical research on drugs against known viruses that have the potential to cause pandemics.

The competitive grant, awarded by the National Institute of Allergy and Infectious Diseases (NIAID) for Covid-19 and related research, is worth a total of about US\$577 million. The pot of money has been distributed to nine teams, mainly made up of United

States researchers.

NIAID, which is led by Dr Anthony Fauci, is part of the National Institutes of Health (NIH) in the US.

The Singapore team is a sub-team in one of the nine and will be focusing on developing drugs for viruses such as the Sars-CoV-2, dengue and Zika viruses, NTU said in a statement last Tuesday.

Associate professor of infection and immunity Luo Dahai from the NTU Lee Kong Chian School of Medicine (LKC Medicine) said: "Part of this grant will be used to enhance our understanding of these viruses, the stages of virus infection, what we can target to pro-

duce better and more effective antibodies. We will do a lot of lab and animal experiments to identify lead compounds which are sufficiently potent, specific and safe."

He added: "The idea is at the end of five years, we will have a few of these promising compounds. We will then work with pharmaceutical companies to bring these into clinical trials."

Prof Luo, who is also provost's chair in medicine and an expert in structural virology, will lead the team of seven to 10 researchers. The grant will last them for five years.

Covid-19 has shown that any pandemic can be very damaging,

he added. "Even the most experienced experts may not be able to predict when, how and which virus can cause a pandemic and how long it will last. All these questions are very difficult to predict, and instead of waiting for the pandemics to come, we just have to take these kind of semi-preventative efforts and study the viruses that are already causing local epidemics," he said.

The Lee Kong Chian School of Medicine's vice-dean of research Lim Kah Leong said: "With the scale of the NIH funding and the expertise covering all essential steps of the antiviral drug discovery process, I believe NTU

LKC Medicine's participation in this global collaborative research effort to develop antiviral drugs targeting pathogens of pandemic concern will give humanity a good chance to be better prepared for future pandemics."

The research to be carried out by the NTU team is part of the efforts at the Midwest Antiviral Drug Discovery (AViDD) Centre for Pathogens of Pandemic Concern, based in the University of Minnesota, to develop antiviral drugs with a grant by NIAID.

The Midwest AViDD Centre is one of nine new national centres newly established by NIAID to conduct innovative, multidisciplinary research to develop candidate Covid-19 antivirals, especially those that can be taken in an outpatient setting, as well as antivirals targeting specific viral families with high potential to cause a pandemic in the future.

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