

NEWS RELEASE

Singapore, 26 July 2022

NTU Singapore team wins US\$2 million grant to conduct research in COVID-19 drug development

A team of scientists led by **Lee Kong Chian School of Medicine (LKCMedicine)** at **Nanyang Technological University, Singapore (NTU Singapore)** have won a US\$2 million (S\$2.8 million) competitive grant under a major research programme in the United States to develop drugs for viruses with the potential to cause pandemics, such as the Sars-CoV-2, dengue, and Zika viruses.

The research to be carried out by the NTU Singapore team is part of the efforts at the Midwest Antiviral Drug Discovery (AViDD) Center for Pathogens of Pandemic Concern based in the University of Minnesota, to develop antiviral drugs with a grant by the National Institute of Allergy and Infectious Diseases (NIAID) in the US.

The Midwest AViDD is one of nine new national centres newly established by the NIAID, part of the US National Institutes of Health, 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.

Led by NTU LKCMedicine's **Associate Professor of Infection and Immunity and Provost's Chair in Medicine Luo Dahai**, an expert in structural virology, the Singapore team will leverage NTU's state-of-the-art molecular and structural biology research platform and facility to identify new antiviral drug targets. Also on the research team is **Dr Liew Chong Wai** from the NTU Institute of Structural Biology.

The NTU team will be collaborating with the AViDD team led by eminent scientist **Professor Reuben Harris** to develop small molecule drug candidates, with an aim to bring the most promising drug candidates to the clinical research stage. Prof Harris is an investigator with the Howard Hughes Medical Institute and also Professor and Chair at the University of Texas Health San Antonio.

Such research could pave the way for the development of antiviral drugs for COVID-19 and future pandemics that could be taken in an outpatient setting, said the scientists.

NTU LKCMedicine Dean and NTU Senior Vice President (Health & Life Sciences) Professor Joseph Sung said: “NTU Singapore has been playing an important scientific role in the fight against the COVID-19 pandemic and other viral pathogens, with its LKCMedicine leading research projects in preclinical studies of antiviral drug discovery both in Singapore and internationally for viruses like the dengue and Zika viruses. This latest grant award is an extension of NTU LKCMedicine’s contributions on this front, and I am confident that our scientists, will do both the university and country proud in this global effort.”

NTU LKCMedicine Vice Dean (Research) Professor Lim Kah Leong said: “COVID-19 is a warning that we need to be prepared way ahead of future pandemics. With the scale of the National Institutes of Health funding and the expertise covering all essential steps of the antiviral drug discovery process, I believe NTU LKCMedicine’s participation in this global collaborative research effort to develop antiviral drugs targeting at pathogens of pandemic concern will give humanity a good chance to be better prepared for future pandemics.”

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Notes to Editor:

Funding for this grant is provided by NIAID Grant Number: 1U19AI171954-01.

The awards are a part of the Antiviral Program for Pandemics (APP), an intensive research program designed to speed development of therapeutics for COVID-19. APP is led by NIAID, the National Center for Advancing Translational Sciences (NCATS) and the Office of Research Infrastructure Programs, all part of the National Institutes of Health; and the Biomedical Advanced Research and Development Authority (BARDA), part of the United States Department of Health and Human Services.

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Media contact:

Foo Jie Ying
Manager, Corporate Communications Office
Nanyang Technological University
Email: jieying@ntu.edu.sg

About Nanyang Technological University, Singapore

A research-intensive public university, Nanyang Technological University, Singapore (NTU Singapore) has 33,000 undergraduate and postgraduate students in the

Engineering, Business, Science, Medicine, Humanities, Arts, & Social Sciences, and Graduate colleges.

NTU is also home to world-renowned autonomous institutes – the National Institute of Education, S Rajaratnam School of International Studies, Earth Observatory of Singapore, and Singapore Centre for Environmental Life Sciences Engineering – and various leading research centres such as the Nanyang Environment & Water Research Institute (NEWRI) and Energy Research Institute @ NTU (ERI@N).

Under the NTU Smart Campus vision, the University harnesses the power of digital technology and tech-enabled solutions to support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources.

Ranked amongst the world's top universities, the University's main campus is also frequently listed among the world's most beautiful. Known for its sustainability, over 95% of its building projects are certified Green Mark Platinum. Apart from its main campus, NTU also has a medical campus in Novena, Singapore's healthcare district.

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