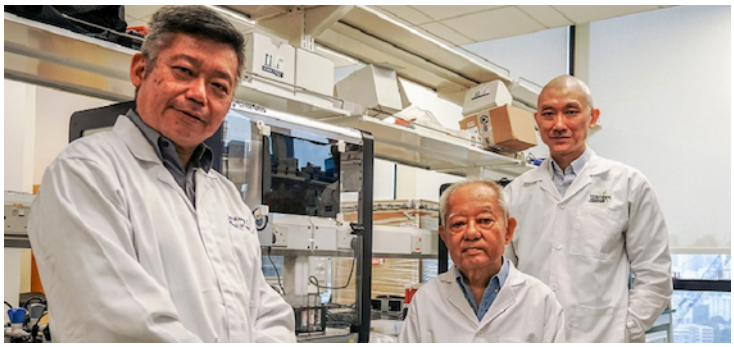
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Singapore prepares for future pandemics with hi-tech diagnostic lab

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Situated at NTU Singapore's Lee Kong Chian School of Medicine (LKCMedicine) Novena Campus



Nanyang Technological University, Singapore (NTU Singapore) and Pathnova Laboratories, a medical diagnostic company backed by Temasek Life Sciences Accelerator and headquartered in Temasek Life Sciences Laboratory, is contributing to Singapore's COVID-19 diagnostic capability through its partnership in a new clinical diagnostic laboratory.

Amid the ongoing global COVID-19 situation, the lab plans to tap advanced technology like Artificial Intelligence (AI) and data analytics to innovate, boosting the country's future pandemic response.

Situated at NTU Singapore's Lee Kong Chian School of Medicine (LKCMedicine) Novena Campus, the NTU Clinical Diagnostic Laboratory was set up in April 2020 by a team of academic researchers, in support of the national effort to increase diagnostic testing capacity and commenced Covid-19 polymerase chain reaction (PCR) testing on 1 July 2020.

The partnership between NTU and Pathnova commenced on 1 March 2021, with Pathnova running the operations and NTU continuing to support and host the lab. Since then, the lab now known as Pathnova Laboratories @ LKCMedicine, has scaled up its operations and been engaged by the Singapore Ministry of Health in testing swabs from over 120,000 individuals, including routine rostered testing for residents of foreign worker dormitories.

With a testing capacity of 2,000 tests per day, the lab has been preparing for largescale testing and faster turnaround times with automation and increasing the types of SARS-CoV-2 assays available.

Supported by experts in the fields of genomics, computer science and bioengineering, the Pathnova Laboratories @ LKCMedicine lab will explore ways to simplify and shorten complex protocols. Creating a new kind of molecular laboratory, it will run on open-source hardware and software, be fully integrated, reconfigurable, and resistant to supply chain bottlenecks.

Image caption- Image: (L-R) Assoc Prof Eric Yap from LKCMedicine, who is the Medical Director of the new lab, with co-founders of Pathnova Laboratories, Emeritus Professor Chan Soh Ha and Dr Ian Cheong.