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NTU's new life sciences cluster to address healthcare challenges



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SINGAPORE — Nanyang Technological University (NTU) has set up a new life sciences cluster to address global healthcare challenges through interdisciplinary research into the intricate relationship between a population's health and the environment.

Called the NTU Integrated Medical, Biological and Environmental Life Sciences (NIMBELS) cluster, it will feature Southeast Asia's first phenome centre — the second phenome centre in the world — which will tackle key areas of research need, such as ageing, diabetes, gut microbiomes and the urban water cycle.

The S\$9 million centre took more than a year to set up, and it seeks to shed light on how physical and biochemical traits are produced by the interactions between genes and environmental factors.

Essential goals such as improved health of the population, better care for individuals and a more sustainable environment are expected to be addressed in time to come. The Singapore Phenome Centre at NTU already has several joint projects underway, which includes examining microbial products from waste water treatment systems with the national water agency Public Utility Board (PUB), and characterising factors that contribute to complications in diabetes, in partnership with Khoo Teck Puat Hospital and Tan Tock Seng Hospital.

The new centre brings together the life sciences expertise in NTU's Lee Kong Chian School of Medicine, School of Biological Sciences, Singapore Centre for Environmental Life Sciences Engineering (SCELSE) and the NTU Institute of Structural Biology.

It is an interdisciplinary research platform that has strong industry support, such as UK instrument and software giant, Waters Corporation, and an international network that will be initiated by the Medical Research Council - National Institute for Health Research (MRC-NIHR) National Phenome Centre at Imperial College London.

NTU President Professor Bertil Andersson said in a speech during the launch: "With the challenges that come with a rapidly ageing society, we need to look beyond the human body to solve today's healthcare problems and it is vital that we understand how our environment affects our health. It is only with this knowledge that we can develop better preventive and diagnostic markers as well as treatments. With the university's innovative spirit and its pioneering efforts in future healthcare, our new institute is poised to deliver research breakthroughs for a healthy Singapore."

The Singapore Phenome Centre, currently located at the Research Techno Plaza, will move to the Experimental Medicine Building by the end of the year.

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