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Experimental Drug Development Centre (EDDC) opens in Singapore

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A national platform for drug discovery and development to channel and strengthen the pipeline of high potential home-grown drug candidates by collaborating across the industry, research institutes, academia, and hospitals in Singapore



The Singapore's drug development efforts have been given additional momentum with the introduction of Experimental Drug Development Centre (EDDC) and Target Translation Consortium (TTC) platforms with Singapore Therapeutics Development Review (STDR) grant scheme for drug discovery and development. The ceremony witnessed the signing of TTC and the STDR Memorandums of Understanding (MOU). The opening ceremony of the EDDC at Biopolis, on 26 June 2019 was officiated by Mr Heng Swee Keat, Deputy Prime Minister and Minister for Finance, and Chairman of the National Research Foundation (NRF).

The national platforms aim to bridge the 'valley of death' between basic science research and pharmaceutical enterprises. They will also serve to catalyse collaboration across industry, research institutes, academia, and the hospitals; as well as nurture a strong pool of scientific talent for Singapore's biomedical ecosystem.

EDDC is a national platform for drug discovery and development to channel high potential drug candidates toward realising commercial outcomes for Singapore, as well as clinical outcomes that will benefit Singaporeans. EDDC integrates A*STAR's Experimental Therapeutics Centre (ETC), the clinical development unit known as Drug Discovery and Development (D3), and the Experimental Biotherapeutics Centre (EBC). EDDC will leverage Singapore's competitive advantage in melding biomedical sciences, clinical medicine and engineering, to bring early drug targets to first-in-man clinical trials. With a growing Asian market and a predominantly ethnic-Asian population in Singapore, there are opportunities for Singapore to differentiate itself by focusing on novel therapeutics for Asian-prevalent diseases.

The Target Translation Consortium (TTC) launched on this occasion brings together A*STAR, Duke-NUS Medical School, Lee Kong Chian School of Medicine, Nanyang Technological University, National Healthcare Group, National University of Singapore, National University Health System, and SingHealth. Helmed by EDDC, this new TTC coordinates and facilitates early-stage drug discovery efforts across academia, healthcare institutions, and government agencies. This collaborative

approach is an important competitive edge for Singapore's biomedical ecosystem amidst an increasingly sophisticated drug discovery and development space. TTC network of public research performers in Singapore aims to improve the chances of success in the drug development process.

The Singapore Therapeutics Development Review (STDR) grant scheme was also announced to complement these two new platforms. STDR consolidates three separate schemes by A*STAR, the National Health Innovation Centre Singapore (NHIC), as well as the Singapore–MIT Alliance for Research and Technology (SMART); into a new grant that funds early-stage projects up to S$750,000. It combines the expertise and resources of all three organisations, streamlining the assessment and feedback process for promising drug discovery and development projects. This ensures that projects with high potential are adequately funded without undue delay, which strengthens the pipeline of home-grown drug candidates.

Singapore's investments in biomedical sciences have been making steady progress, with made-in-Singapore cancer drug candidates now moving into clinical trials and commercialisation. The biomedical sciences sector has also seen a positive growth trajectory of home-grown biomedical companies. Singapore now has close to 100 local biotech companies, which collectively contributed more than US$350 million in deal flows in 2018 alone. In 2017, Singapore's three largest biotech companies were reported to have an estimated collective valuation of more than US$1 billion. Singapore now has an increasingly rich mix of biomedical talent, knowledge and capabilities, a vibrant biomedical business environment, and an ecosystem that fosters innovation and the sharing of new ideas.

"A significant milestone has been achieved for Singapore with EDDC's launch as a national drug development platform, leading the formation of a consortium of key players in Singapore's drug discovery and development ecosystem. We look forward to working with our partners on the next phase of growth in drug development, and leveraging great science to make great medicines for patients" said Dr Damian O'Connell, CEO EDDC, A*STAR, Member of TTC.

"Making new drugs is a high stakes enterprise. By working together more closely, and by establishing a national drug development centre run by professionals from the pharmaceutical industry, we enhance our chances of success. I don't think we have to wait long to reap the dividends from these investments, as well as to see more made in-Singapore drugs in the clinic" said Dr Benjamin Seet, Executive Director of A*STAR's Biomedical Research Council, Member of STDR.