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Tychan's Zika therapeutic ready for human trial

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Tychan establishes Joint-Partnership with WuXi Biologics to develop Therapeutics in three areas including Zika Virus

Singapore – Tychan, a Singapore clinical-stage biotechnology company, announced that its first-in-class monoclonal antibody therapeutics for Zika, Tyzivumab, is now ready for human trials. Developed in a record time of 9 months and having proven safe and effective in animals, the first patient dose in a Phase 1a clinical trial will take place on 8th February 2018, following a regulatory authorisation by the Health Sciences Authority, Singapore. Two further phases of clinical trials will typically follow before the therapeutics could be applied to patients.

Lack of timely intervention during infectious disease outbreaks results in millions of fatalities every year. The short development cycle of the Zika therapeutics is made possible by a technology platform developed by Dr. Ram Sasisekharan, Alfred H. Caspary Professor of Biological Engineering and Health Sciences & Technology, Department of Biological Engineering, Koch Institute for Integrative Cancer Research of Massachusetts Institute of Technology (MIT) and Singapore-MIT Alliance for Research and Technology (SMART); and Professor Ooi Eng Eong, Deputy Director, Emerging Infectious Diseases Programme, Duke-NUS Medical School, Singapore and Co-Director, Viral Research and Experimental Medicine Centre@SingHealth Duke-NUS (ViREMiCS), with the basic research funded by National Research Foundation (NRF), Singapore. Temasek Foundation Ecosperity also provided funding support to help start the quick development capability in line with its objective to enhance livability of Singapore and other cities.

Tychan believes that its platform can shorten the required timeline to bring a candidate therapy from design to clinical trials from months to weeks. It intends to do this using a staged approach that integrates innovative drug development and bio-manufacturing processes. With this integrated approach, Tychan puts Singapore on the map to address and manage emerging pathogens that impact local and global economies. Tychan is founded by Drs. Sasisekharan and Ooi with funding from Tychan's major shareholder, Temasek - a Singapore headquartered investment company.

"The current paradigm of taking years to bring a drug from discovery to the clinic does not allow us to effectively deal with outbreaks of emerging diseases", said Teo Ming Kian, Chairman of the Board, Tychan.

"These outbreaks are often explosive and claim many lives within a few months. The SARS episode is a painful reminder. To make a difference to outbreak interventions, research discovery must be translated into medicines within such timelines. The

development of Tyzivumab is a first step in this direction", Teo added.

The outcome of such innovations would be tremendously impactful; as every day saved to advance the delivery of therapeutics, without compromising on the safety while establishing the efficacy to patients, would save many lives in pandemics caused by emerging infectious agents. For the first time, there is hope that painful episodes like that of SARS would not recur.