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Scientific Journal *Antiviral Research* Publishes Study Demonstrating Benefits of Tychan’s Antibody Discovery Technology Platform

Tychan’s rapid response platform that has identified agents targeting COVID-19, Zika, and yellow fever

SINGAPORE, 17 June 2021 – [Tychan](#), a Singapore-based clinical-stage biotechnology company, today announced [the publication of a scientific study](#) highlighting key advantages of its innovative antibody discovery technology platform that it created for rapid development of novel therapeutics to target infectious diseases, including yellow fever, Zika, and COVID-19. The peer-reviewed study, published in Elsevier’s scientific journal *Antiviral Research*, was conducted in collaboration with MIT. The study describes Tychan’s innovative approach to rapidly select, modify, and assemble antibody parts in a methodology analogous to building blocks or Lego blocks assembly, to construct novel therapeutic monoclonal antibody (mAb) treatments.

Inspired by the methods developed at the Sasisekharan Laboratory at MIT, Tychan has substantially enhanced its propriety technology platform into an efficient and highly versatile approach to antibody discovery. Its antibody engineering strategy combines information from known antibody scaffolds and a diverse database of antibody parts to computationally assemble novel antibodies in rapid timelines.

“This publication offers critical insight into the value of Tychan’s innovative methodology, which has already generated clinical-stage candidates as well a rich pipeline and varies drastically from traditional methods in regard to speed and efficiency,” said Dr. Yadunanda Budigi, Director of R&D for Tychan.

Tychan’s innovative platform has already been utilized to develop several novel MAbs, including:

- TY014, a first-in-class therapeutic antibody treatment for yellow fever, whose safety profile and potency in humans were successfully demonstrated and reported in the [New England Journal of Medicine \(NEJM\)](#) last year.





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- TY027, a novel therapeutic mAb targeting SARS-Cov-2, targets a highly conserved region of the viral spike protein. TY027, one of the earliest mAbs to obtain IND approval globally, is [currently in Phase-3 trials](#) in Singapore and is active against all of the variant strains of the virus now circulating, including the recent delta variant.
- [Tyzivumab, which was developed to combat Zika](#), has successfully completed Phase-1 studies after a record development time of 9 months to IND.

Tychan's antibody discovery platform is a crucial component of BioShield, its rapid response platform, which aims to shrink drug development timelines by integrating Drug Discovery, Manufacturing, and Clinical domains. Through its BioShield platform, Tychan has successfully reduced development timelines of therapeutic antibodies to IND ~4 months and aims to develop a sustainable framework to make this the 'norm' rather than the exception. Towards this, the company has completed its Advanced Manufacturing cGMP facility in Singapore, which will significantly boost its capabilities to deliver BioShield.

"With technology and a crisis response mindset as well as tremendous resources, vaccines and therapeutics had been rolled out in record time to address the current pandemic. Tychan's innovative Bioshield, aims to achieve such outcomes as an established process rather than through extraordinary efforts so we could stand ready to battle any infectious disease whenever that may emerge and the variants that would invariably evolve. Tychan's work on Zika, Yellow Fever and Covid19 will enable us to further shortening the timeline to develop safe and efficacious therapeutics and prophylaxis. We will work closely with regulators to similarly apply innovation to bring them to patients and first responders soonest to mitigate the adverse impact such disease outbreaks wreak." said Teo Ming Kian, Chairman of the Board, Tychan.

About Tychan Pte. Ltd.

Tychan, a Singapore-based clinical-stage biotechnology company, is focused on bringing life-saving treatments for emerging infections to those in need through disruptive technologies. In a coordinated effort with regulatory authorities, the company is accelerating the translation from non-clinical studies to clinical trials for emerging pathogens. Founded by Professor Ram Sasisekharan of Massachusetts Institute of Technology (MIT)/Singapore MIT Alliance for Research and Technology (SMART) and Professor Ooi Eng Eong of Duke-National University of Singapore (Duke-NUS) Medical School, whose expertise spans the fields of biologics





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development and biology of acute viral infections. Temasek Holdings is the founding investor of Tychan. For more information on Tychan Pte. Ltd, please visit www.tychan.com.

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