BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Tychan begins Phase I Trials for first ever yellow fever drug

07 December 2018 | News

Monoclonal antibody TY014 advanced from initiation to clinical development in seven months.

Tychan, a clinical-stage biotechnology company based in Singapore, announced today that its first-in-class candidate drug for the treatment of Yellow Fever received investigatory new drug (IND) regulatory approval from Health Sciences Authority (HSA) of Singapore to evaluate safety and tolerability. The first patient has also been dosed with TY014, a monoclonal antibody, in a phase I trial of healthy volunteers. There is currently no approved treatment for Yellow Fever (YF). Tychan aims to complete safety assessments in time to intervene if there is a YF outbreak in early 2019.

TY014 progressed from initiation to regulatory submission in less than seven months due to substantial advances in Tychan's proprietary rapid development platform and the Company's partnership with Wuxi Biologics. TY014 is the first monoclonal antibody designed and engineered to treat Yellow Fever Virus-infected patients to enter the clinic. It is directed against the envelope (E) protein on the surface of the virus, and prevents viral replication by limiting viral fusion to host cells.

"The unprecedented speed with which TY014 advanced from project initiation to clinical testing makes it possible for us to meet the urgent need for an available intervention should a global Yellow Fever crisis erupt. It is a manifestation of Tychan's drive for a capability to quickly find treatments to new infectious disease outbreaks in endemic regions," said Teo Ming Kian, Chairman of the Board, Tychan. "Moreover, the shortening of the timeline to regulatory approval from our previous work in Zika validates our approach and inspires us to reach our ultimate goal: to do this within weeks rather than months."

YF is a mosquito-borne hemorrhagic disease caused by the Yellow Fever Virus (YFV) that has in the past caused epidemics leading to significant human and economic losses. Nearly 15 percent of patients infected with YFV develop life-threatening illness involving haemorrhage, jaundice and shock. Of these, approximately 30 percent die of their disease. Sudden spurts in global demand from ongoing outbreaks have previously resulted in a shortage of existing vaccines, leaving millions at risk. This risk is particularly acute if YFV spreads beyond Africa and South America into Asia.

"Tychan's rapid biologics development for infectious diseases is consistent with our mission to accelerate and transform how biologics are developed and manufacture globally. This first-in-class antibody against Yellow Fever Virus developed in a rapid time underscores both our world-leading technical capability and validation of this exciting approach to treat emerging infectious diseases. We are prepared to scale up production to combat any potential global outbreak," said Chris Chen, CEO, WuXi Biologics.