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TRIAL'S FIRST PHASE WILL EVALUATE DRUG'S SAFETY, TOLERABILITY

Milestone reached as first patient gets dose of S'pore-developed cancer drug

ETC-159 could suppress cancer proliferation and prevent its progression

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Prof David Virshup (centre, in blazer) and the research teams involved in the drug trial. PHOTO: A*STAR, DUKE-NUS

SINGAPORE – A made-in-Singapore drug that could prevent cancer from progressing has reached a milestone, having started clinical trials with the first patient receiving a dose on June 18.

This is the first publicly-funded drug that has been discovered and developed in Singapore to advance to first-in-human trials.

The drug targets a number of cancers that contribute to a significant proportion of Singapore's cancer burden, including colorectal, ovarian and pancreatic cancers.

It works by inhibiting a group of cell-signalling pathways — through which cells receive, process and then respond to signals — that these cancers are linked to, and which have been identified to promote cancer growth and spread when elevated or dysregulated.

The drug, ETC-159, could thus suppress cancer proliferation and prevent cancer progression, said the Agency for Science, Technology and Research (A*STAR) and Duke-NUS Graduate Medical School in a joint release yesterday, as they announced the start of the first phase of the clinical trial.

A*STAR and Duke-NUS said the drug "offers a promising novel and targeted cancer therapy that could shape future cancer therapeutic strategies".

Professor David Virshup, director of the cancer and stem cell biology programme at Duke-NUS, noted that the drug could also "potentially minimise side effects and make cancer treatments more bearable for patients". The drug development is based on his work, and he has continued to contribute to it.

"This is a major milestone that was made possible by Singapore's ongoing investment in basic and translational biomedical research to address unmet medical needs. It is fitting that Singaporeans may be the first to benefit from this Singapore-developed drug," said Prof Virshup.

The first phase of the clinical trial will evaluate the safety and tolerability of ETC-159 in advanced solid tumours of up to 58 patients.

The first two sites for the trial are the National Cancer Centre and the National University Hospital, with sites in the United States to be opened as the trial progresses.

Ethics and regulatory approval for this trial has been obtained from the SingHealth Centralised Institutional Review Board and the Health Sciences Authority in Singapore, respectively.

Cancer is the leading cause of death in Singapore, accounting for 30 per cent of deaths in 2013, as well as 8.2 million worldwide. There are currently other cancer drugs developed by the private sector that are also undergoing clinical trials in Singapore.

ETC-159 was discovered and developed through a collaboration among A*STAR's Experimental Therapeutics Centre, its Drug Discovery and Development unit and Duke-NUS in 2009.

Dr Benjamin Seet, executive director of A*STAR's Biomedical Research Council, said: "Despite the protracted process of drug discovery and development, I am confident that we will see more locally-developed drugs in the pipeline being tested and implemented."