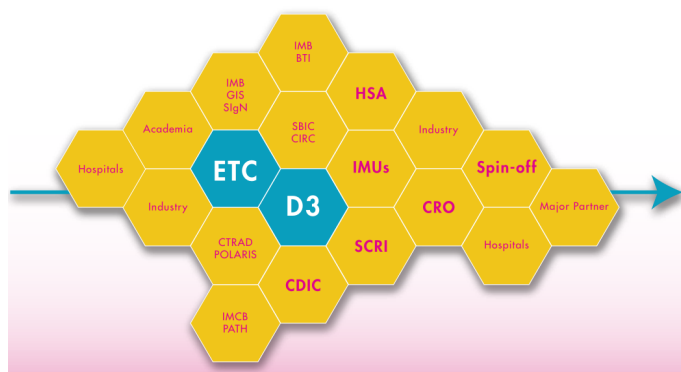


CANCER DRUG CANDIDATE - ETC-159  
SINGAPORE'S FIRST PUBLICLY FUNDED CANCER DRUG CANDIDATE



1) Singapore's  
Drug Discovery  
and Development  
Eco-system

#### INTRODUCTION

ETC-159 is a novel small molecule drug candidate that targets a range of cancers including colorectal, ovarian and pancreatic cancers. It is an inhibitor of Wnt signalling pathways which promote cancer growth and spread. It is the first publicly funded drug candidate discovered and developed in Singapore to reach first-in-man trials and it is currently in Phase 1 clinical trial. ETC-159 is the fruit of a successful collaboration between A\*STAR's Experimental Therapeutics Centre (ETC), Drug Discovery and Development (D3) unit and Duke-National University of Singapore Graduate Medical School.

#### CHALLENGES

- Drug discovery and development is expensive, time-consuming and risky.
- Bringing a drug to market can cost billions and take over a decade.
- Chances of success are also slim: between 5,000-to-1 and 10,000-to-1.

#### OUR SOLUTION

The development of ETC-159 illustrates Singapore's unique approach – by building an integrated drug discovery and development eco-system that incorporates the infrastructure, resources and human capital necessary to conduct basic research, translational research, and commercialisation. Together, ETC and D3 interlink these related capabilities and resources, which are found within local universities, research institutes, healthcare organisations, government agencies, and industry partners. Furthermore, this eco-system is plugged into the international biomedical sciences scene through collaborations worldwide, enabling our innovations to have global impact.

#### BENEFITS

- Aligning the goals of basic R&D with the commercial needs of the industry.
- Achieving greater R&D productivity through focused research and by sharing resources.
- Creating a strategic economic "pillar" that is durable and benefits healthcare in Singapore.

#### APPLICATIONS

- ETC-159 is just one of a few success stories of the ETC-D3 platform.
- ETC and D3 successfully advanced Singapore's first flu vaccine through 1st-in-man trials in 2014.
- There are many other drug candidates in the ETC-D3 pipeline e.g. ETC-206 (a Mnk inhibitor).
- This eco-system is dynamic, it can be directed towards new therapeutic approaches e.g. biologics.

