Inhibitors of Wnt signaling as a novel treatment for triple negative breast cancer

We target a particularly morbid and poorly manageable subtype of breast cancer – TNBC – which, despite accounting for 15 to 20% of all diagnosed BC cases causes 50% of all BC deaths. So far the TNBC is treated by conventional methods of cytotoxic chemotherapy resulting in dramatic decrease of the patient life quality. These treatments are also inefficient and result in high recurrence rate. Inhibition of Wnt signaling is known to affect broad range of TNBC and many other cancers. So far there are no clinically approved Wnt inhibitors as the yet identified compounds show unacceptable toxicity profiles.

DESCRIPTION

Decades of our successful investigations on Wnt signaling and recent screening efforts resulted in development of a new paradigm of search for such compounds, which resulted in identification of a family of small-molecule agents which show good efficacy and safety profile.

STAGE OF DEVELOPMENT

Identified molecules have been tested for their anti-cancer properties in vitro and in vivo.

The project is currently in the advanced pre-clinical stage.

ADVANTAGES

• The lead compounds of our innovative structure family are active against TNBC and show a highly safe profile upon application in the animals in contrast to cytotoxic therapies and other anti-Wnt agents;
• Our compounds have favorable metabolic stability and pharmacokinetical profile in vivo;
• Despite that TNBC is our primary focus, these compounds have potentially much broader scope of application including other Wnt-dependent cancers

INTELLECTUAL PROPERTY

PCT patent application N°PCT/EP2019/055117
“Novel class of inhibitors of the Wnt pathway”
priority date on March 2, 2018
Applicant: University of Lausanne
Inventors: V. Katanaev and A. Koval

COLLABORATION OFFER

PACTT offers to grant exclusive or non exclusive license to industrial partners able to develop and commercialize the technology.

REFERENCE

IDF 28/17