



Institute
of
Oncology
Research



MICTHERA – MICROBIAL DERIVED THERAPEUTICS

Problem – Challenge

Prostate cancer (PC) is the most common cancer in men and a major cause of global mortality within the male population. PC incidence in Europe has doubled since 1995, and every year 1.4M new cases are diagnosed worldwide. While most PC patients benefit from current therapies, relapses remain high, posing significant therapeutic challenges. Scientists at IOR discovered that gut microbiota is a key mechanism of resistance in PC. However, today's microbiota-targeting therapies face several challenges, particularly in terms of their applicability and scalability.

Solution

MicThera is a Spin-off of the Institute for Oncology Research (IOR) – affiliated to the Università della Svizzera italiana (USI). MicThera is developing Microbial Derived Therapeutics to treat primarily prostate cancer, by studying a particular bacteria signature associated with increased survival in PC patients at molecular level. The core technology has been discovered in the laboratory of Prof. Andrea Alimonti at IOR, is patent protected and exclusively licensed to MicThera.

MicThera is actively engaged in R&D that focuses on the identification and validation of microbial effector molecules with potent anticancer and antibacterial properties. By developing microbial-derived therapeutics MicThera aims to fill the treatment gap for conditions where gut microbiota is pivotal, circumventing the challenges of existing microbiota-targeting therapies like prebiotics, probiotics, and fecal microbiota transplants.

The company was founded in 2023, and the team is led by Dr. Nicolò Pernigoni. MicThera successfully obtained 1st place in the Boldbrain Startup Challenge and is currently incubated at the USI Startup Centre, continuing to advance the understanding of microbial effector molecules to treat cancer. MicThera has secured an investment seed round of one million Euro from a biotech-focused fund.



Experiments with EG-011 in the IOR laboratory