







This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 848098.

The main objective of REVERT is to develop an improved and innovative model of combinatorial therapy – based on personalised medicine - that identifies the most efficient and cost-effective therapeutic intervention for patients with unresectable metastatic colorectal cancer (mCRC).

The specific objectives are:

To build the **REVERT-DataBase (RDB)** to re-analyse and characterise the pathophysiology of mCRC and to investigate the causes of positive or negative responses to treatments based on established therapeutic interventions in patients with unresectable mCRC.

TWO

To build a sophisticated AI-based computational framework to predict patient responses to combinatorial therapies for mCRC care, based on the analysis of new, potential prognostic biomarkers as molecular predictors of therapeutic response or disease outcome

THREE

To validate the health, economic and social impact of the model in preclinical/ clinical studies across Europe

REVERT taRgeted thErapy for adVanced cororEctal canceR paTients The **REVERT project** will address the **specific** challenge of understanding at system level the pathophysiology of mCRC cancer in patients responding well or poorly to therapies, in order to design optimal strategy for mCRC on a case **by case** basis, with therapeutic interventions modulated depending on patient's features.



REVERT

taRgeted thErapy for adVanced cororEctal canceR paTients

REVERT

will generate an EU- network among SMEs, Research Institutions, Clinical Centres and Biobanks focused on R&D in the field of AI-Health for the development of personalised medicine.



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Accordingly, **REVERT** will build up an innovative artificial intelligence (AI)based decision support system using the experience and the real-world data of several general Hospitals operating in the EU healthcare system ultimately aimed at developing an improved and innovative model of combinatorial therapy - based on a personalised medicine approach - that identifies the most efficient and costeffective therapeutic intervention for patients with unresectable mCRC.

This goal will be pursued through the building of the **REVERT-DataBase** (**RDB**) thanks to a large number of standardized biobank samples with related structured data, and clinical databases (including known clinical and biological features as well as new, potential prognostic/predictive biomarkers) from several major clinical European centres.

The **RDB**, in turn, will be used to build asophisticated computational framework based on AI to evaluate its impact on survival and quality of life in a prospective clinical trial through testing of new treatment sequences of the available and authorised molecular targeted drugs in patients with mCRC.

