This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 964264

TRANSCAN
Sustained collaboration of national and regional programmes in cancer research

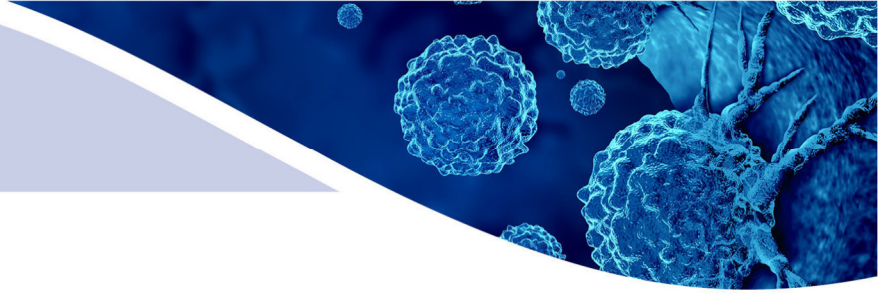
TRANSCAN-3: Sustained collaboration of national and regional programmes in cancer research

Preliminary Announcement*

The *Second Joint Transnational Call for Proposals 2022 (JTC 2022)* will be launched in May 2022

on the topic:

"Novel translational approaches to tackle the challenges of hard-to-treat cancers from early diagnosis to therapy"



The ERA-NET TRANSCAN-3, in continuity of the preceding ERA-NET TRANSCAN-2, has the goal of coordinating national and regional funding programmes for research in the area of translational cancer research. The specific challenge is to promote a transnational collaborative approach between scientific teams in demanding areas of translational cancer research while avoiding the duplication of efforts and ensuring a more efficient use of available resources, to produce significant results of higher quality and impact, and share data and infrastructures.

The following **funding organisations** have agreed to participate in the JTC 2022 of TRANSCAN-3:

- Austrian Science Fund (FWF), Austria *(decision pending)*
- Research Foundation - Flanders (FWO), Belgium, Flanders *(decision pending)*
- Fund for Scientific Research – FNRS (F.R.S.-FNRS), Belgium, French speaking community
- Estonian Research Council (ETAg), Estonia
- French National Cancer Institute (INCa), France
- ARC French Foundation for Cancer Research (ARC Foundation), France
- Federal Ministry of Education and Research (BMBF), Germany
- National Research, Development and Innovation Office (NKFIH), Hungary *(decision pending)*
- Health Research Board (HRB), Ireland
- The Chief Scientist Office of the Ministry of Health (CSO-MOH), Israel
- Ministry of Health (IT-MOH), Italy
- Alliance Against Cancer (ACC), Italy
- Fondazione Regionale per la Ricerca Biomedica (FRRB), Lombardy, Italy
- Tuscany Region (TuscReg), Tuscany, Italy
- Latvian Council of Science (LCS), Latvia
- National Research Fund (FNR), Luxembourg *(decision pending)*
- Research Council of Norway (RCN), Norway
- Norwegian Cancer Society (NCS), Norway
- National Centre for Research and Development (NCBR), Poland
- Executive Agency for Higher Education, Research, Development and Innovation Funding (UEFISCDI), Romania
- Slovak Academy of Sciences (SAS), Slovakia
- National Institute of Health Carlos III (ISCIII), Spain
- The Scientific Foundation of the Spanish Association Against Cancer (FCAECC), Spain
- The Foundation for the support of the Applied Scientific Research and Technology in Asturias (FICYT), Spain
- Ministry of Science and Technology (MoST), Taiwan
- The Scientific and Technological Research Council of Turkey (TUBITAK), Turkey *(decision pending).*

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The call will be published simultaneously by funding organisations in their respective countries and on the TRANSCAN website: **https:/transcan.eu**.

The TRANSCAN-3 JTC 2022 will be implemented through a two-stage submission procedure: pre-proposals and full proposals.

The call is planned to be launched on **May 23rd 2022** with a submission deadline for pre-proposals in **July 2022**. It is expected that consortia invited to the full-proposal stage will be asked to submit their proposal in **December 2022**.

Interested researchers and/or research teams are advised to prepare and make necessary contacts and arrangements towards preparing applications. Please see below the details of the call topics and an outline of eligibility criteria. They will be further detailed when the JTC 2022 is published.

AIMS OF THE CALL

The JTC 2022 of TRANSCAN-3 will focus on:

"Novel translational approaches to tackle the challenges of hard-to-treat cancers from early diagnosis to therapy "

Proposals must be centred on one or more of the hard-to-treat-cancers (HTTC) subtypes characterized by very poor prognosis (5-year survival rate<25%) and for which survival has not improved significantly over the last decades, namely glioblastoma, oesophageal, pancreatic, gallbladder, liver, and lung/pleural cancers.
Current difficulties include the inadequacy of standard diagnostic tools or established early detection methods in the general population, but also the inefficacy of available treatment options, due to intrinsic resistance and/or ineffective drug delivery. In the context of translational cancer research, this call for proposals comprises three specific aims. Proposals will have to cover at least one of the undermentioned aims or sub-aims.
Aim 1: Identification/validation of novel early diagnostic approaches. Early detection and diagnosis (ED&D) research seek to detect and diagnose consequential precancerous changes and cancer at the earliest possible point at which an effective intervention might be made, reducing the burden of late-stage disease. Any of the areas identified below can be eligible for funding:

- Identification and validation of novel biomarkers/signatures for HTTC, to better understand disease trajectory of very early/pre-cancerous lesions and help patient stratification in terms of risk, diagnosis/prognosis, response to treatment;
- Non-confirmatory clinical trials of ED&D technologies or approaches, in particular data and computation-driven approaches.

Proposals may include hypothesis-driven studies on a variety of biomarkers, e.g. structural, functional, molecular, genetic biomarkers; digital biomarkers are eligible only in combination with other bio-signatures. In all cases, a clear pathophysiological correlate and studies on human participants or tissue should be included in the proposal.

Aim 2: Identification/validation of novel therapeutic approaches. Although ED&D may significantly reduce the disease burden, HTTC are often characterised by an intrinsic resistance to available treatments. Therefore, it is of foremost importance to understand the biological processes that make these cancers "hard to treat", and consequently to elaborate more effective therapeutic strategies, also to improve the patients' quality of life. We welcome proposals aimed at:

- Identification and validation of novel therapeutical targets, based on better insights on resistance mechanisms, tumour heterogeneity, cellular plasticity, tumour microenvironment, immune responses, metastatic process, tumour dormancy. Novel targets should be evaluated in translational studies with regard to their impact on treatment efficacy and patient benefits. Any in-vitro model systems must closely relate to the human disease.
- Development of novel therapeutics/therapeutic approaches, through phase I and II clinical trials investigating combinations of available treatments, e.g. targeting multiple pathways, including immune/inflammatory, neoangiogenic and proliferative pathways, new therapeutics, new administration schemes, nutritional support, and other measures to maximise patient outcome and quality of life.

Aim 3: Development of novel drug delivery strategies. The overarching challenge associated with effective treatment of any cancer is to minimize undesired effects while maximizing therapeutic benefits. For HTTC two additional issues arise: (i) traditional targeted drug delivery strategies suffer from limited capacity of the delivery vehicles preventing sufficient drugs reaching the cancer site which restricts the efficacy of treatment; and (ii) to access the tumour the drug needs to cross endogenous barriers, such as the blood brain barrier and tissue stroma. Therefore, we welcome proposals that aim at developing novel drug delivery systems for HTTC by:

- achieving site-specific targeting; and/or
- controlling release rate.

Interdisciplinary approaches that combine polymer science and nanotechnology, pharmaceutics, bioconjugate chemistry, and molecular biology are particularly supported.

Applicants will have the opportunity to add an additional section for **capacity building activities** (with an associated separate budget, in compliance with rules of their respective national/regional funding organisations). These activities have to be coherent with the objectives of the research project, and aimed to strengthening the ability of participating team(s) to perform the work detailed in the project plan as well as to improve, in the long term, the quality and potential of the translational research performed by the team(s).

MAIN ELIGIBILITY CRITERIA

Only transnational projects will be funded. Each research consortium must involve a minimum of three (3) and a maximum of six (6) eligible partners from at least three (3) different countries participating in the call. In addition, a research consortium must not involve more than two (2) research groups from one country.

In order to strengthen the European translational cancer research area, a wide inclusion of research teams from all the countries/regions participating in the call is encouraged, with a particular attention to research teams from Hungary, Latvia, Slovakia and Turkey.

Each consortium must involve at least one basic or pre-clinical research team and one clinical team. It is also recommended to include an expert team in methodology, biostatistics or bioinformatics, depending on the type of work planned. The consortium may also involve other teams with specialised skills and know-how (biobanks, model systems, technological platforms, etc.) or expertise (epidemiology and molecular epidemiology, early phase clinical trials, public health, ELSI, etc.). The consortium should have sufficient critical mass to achieve ambitious scientific, technological and medical goals and, along with the particular contribution of each research team, should clearly demonstrate its transnational added value.

Applications will be submitted by the coordinator. Each consortium participant will be funded by the funding organisation from their country/region participating in the JTC 2022. Participants are therefore subject to eligibility criteria of national/regional funding organisations.

Upon call publication, applicants will have to refer to annexes of the document "Guidelines for Applicants" containing all specific national/regional eligibility criteria, and will have to contact their respective national/regional funding organisation contact points for additional clarification.

* This document is not legally binding and is provided for information purposes only.