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 Third Joint Transnational Call for Proposals 2024 (JTC 2024) will be launched in April 2024

on the topic:

"Combination therapies against cancer: new opportunities for translational research"

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 2024 of TRANSCAN-3:

- Austrian Science Fund (FWF), Austria
- Fund for Scientific Research – FNRS (F.R.S.-FNRS), Belgium, French speaking community
- Canadian Institutes of Health Research (CIHR), Canada
- ARC French Foundation for Cancer Research (ARC Foundation), France
- French National Cancer Institute (INCa), France
- Federal Ministry of Education and Research (BMBF), Germany
- National Research, Development and Innovation Office (NKFIH), Hungary *(decision pending)*
- Ministry of Health (IT-MOH), Italy
- Tuscany Region (TuscReg), Tuscany, Italy
- Fondazione Regionale per la Ricerca Biomedica (FRRB), Lombardy, Italy
- Latvian Council of Science (LCS), Latvia
- National Research Fund (FNR), Luxembourg
- Research Council of Norway (RCN), Norway
- Norwegian Cancer Society (NCS), Norway

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- 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
- National Science and Technology Council (NSTC), Taiwan
- The Scientific and Technological Research Council of Turkey (TÜBITAK), Turkey

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

The TRANSCAN-3 JTC2024 will be implemented through a two-stage submission procedure: pre-proposals and full proposals.

The call is planned to be launched on **April 26th 2024** with a submission deadline for pre-proposals in **July 05th, 2024**. It is expected that consortia invited to the full-proposal stage will be asked to submit their proposal in **November 29th, 2024**.

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 2024 is published.

AIMS OF THE CALL

The JTC 2024 of TRANSCAN-3 will focus on:

" Translational research for new combination therapies against cancer: new opportunities for translational research "

Despite advances in targeted therapies, immunotherapies, or radiotherapy, different obstacles, and challenges remain to be solved. Current limitations of in vitro personalized systems allowing a fast and reliable testing, new platforms to achieve combination therapy screening, new methods to achieve synergism in combination therapy and new combinations of radiotherapy with drugs or immunotherapy, remain, slowing down further applications of combination therapy in the clinic. Thus, there is a need for the identification of new and fast strategies to assay for individualized combination therapies that may help in the clinic to overcome tumour resistance and improve clinical outcomes avoiding undesired side effects. This topic should evolve from the laboratory to favour the clinical implementation of the strategies from the bench to the bedside.

The main purpose of this call will be design of patient preclinical models for combination therapies. Translational research using tumour samples collected from retrospective and/or prospective cohorts of patients.

Projects should be built from a solid and established hypothesis and should be relevant regarding the potential improvements in clinical practice.

Aim 1. **Development of new tumour derived models to test new drug combination therapies**. Isolation and characterization of tumour cells/tumour-infiltrating immune/stromal cells for in vitro studies (3D culture systems; patient-derived organoids; patient-derived xenografts). These models should be a suitable tool to test new drug combinations or genetic perturbations to demonstrate the feasibility and applicability in terms of reproducibility and testing time (the faster the better) to this aim.

Aim 2. **Design and development of high-throughput drug combination screening platforms to test new combination therapies**.

This aim should include and comprise in the platform design to test combination therapies: primary cell cultures derived from patients, should be able to give rapid assessment of novel drugs, drug combinations or with radiotherapy combination at the individual patient level, combine genomic information, computational tools to predict drug responses for individual cancer patients. Protocols for dose response matrix drug combination assays, as well as computational tools to facilitate the plate design and synergy modelling, development of tailored software tools for high-throughput drug combination scoring.

Aim 3. **Use of immunotherapy and radiotherapy combinations strategies to overcome drug resistance**.

Radiotherapy can provoke a systemic immune response (due to abscopal effect) which gives a strong rationale for the combination of radio and immunotherapy. This aim should explore synergistic effect of radiation (including hypofractionated RT, multi-site radiation, low-dose radiation, new radiation technologies such as FLASH RT, proton RT), with checkpoint inhibitors, characterize the effect on the immune cells including the molecular mechanism and possible immune response biomarkers.

The following type of research projects is excluded from the call:

-Phase II clinical trials.

Applicants will have the opportunity to add an additional section for **capacity building activities** (with an associated separate budget, in compliance with the 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 (decision pending), Latvia, Slovakia and Turkey. If a consortium includes one of these countries, the maximum number of partners can be increased to seven (7).

It is mandatory to integrate at least one early-career researcher (ECR) as principal investigator in a consortium and this has to be clearly indicated in the proposal. The TRANSCAN-3 definition of ECR will be included in the call text document.

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. The translational nature of the research results is the key goal of TRANSCAN-3, therefore the consortium should also clearly demonstrate a knowledge transfer towards clinical, public health and/or industrial applications.

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 2024. Participants are therefore subject to eligibility criteria of national/regional funding organisations.

Upon the call publication, applicants will have to refer to the 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 project has received funding from the European Union’s Horizon 2020 Research and Innovation Programme under grant agreement No. 964264