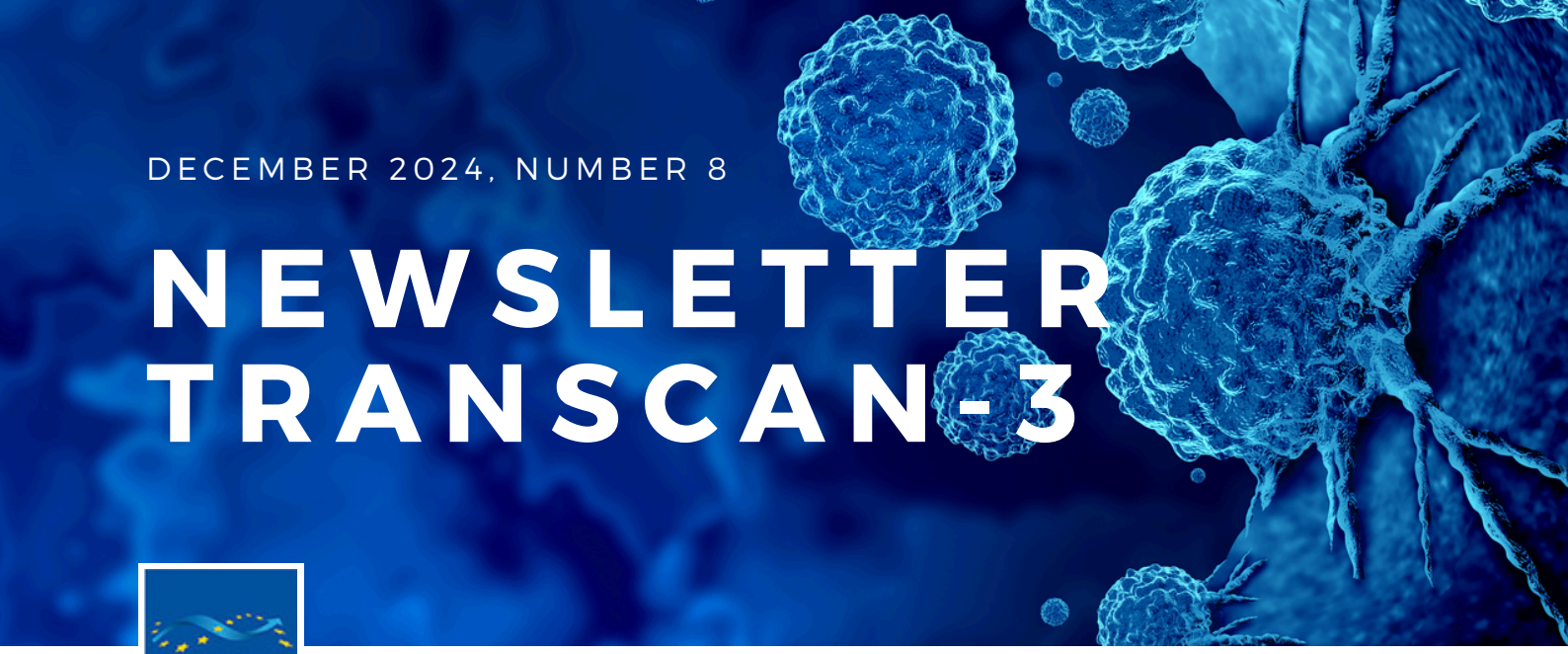


DECEMBER 2024, NUMBER 8

NEWSLETTER TRANSCAN-3

On behalf of the TRANSCAN-3 Consortium we are glad to present our 8 thnewsletter with the latest updates about the project, the joint calls for and the funded projects. This issue includes:

Enjoy reading!

Do not miss any TRANSCAN-3 news and the project results visiting the project website.
Follow our social media pages on LinkedIn and X for periodical updates!

1. TRANSCAN–3 Activities: JTC 2022 Symposium in Catania

This past October 8th and 9th the TRANSCAN-3 network held its second Symposium in Catania, Italy.

All participants in projects funded under the JTC 2022 call “Novel translational approaches to tackle the challenges of hard-to-treat cancers from early diagnosis to therapy” were invited to this event, where they had the chance to share their progress and latest results as well as lessons learned in the first months of their joint work. The event counted with the presence (onsite and online) of almost 70 participants from over 30 countries.

Visit the image gallery

The session was chaired by Theodora Katsila and Triantafillos Liloglou, former members of the scientific evaluation committee that evaluated the JTC 2022 projects. The presentations were a great chance for the researchers to learn about each other's projects and to establish new collaborations and allowed funding agencies to gain first-hand insights into the progress of the funded actions.

> Serving as a JTC 2022 SEC member and Symposium Chair within TRANSCAN-3 has been an honour. It is inspiring to collaborate with dedicated experts across Europe, all working together to advance translational cancer research and make a real impact on patients' lives.
>
> **Theodora Katsila**

Supporting Early Career Researchers (ECRs) is a strategic objective of TRANSCAN-3, giving the opportunity to younger scientists to learn from and interact with more experienced researchers while participating in an international project.

A dedicated gathering for ECRs was organized to facilitate networking with peers from other countries in a similar career stage offering an informal setting for young scientists to share experiences and build relationships. While modest in scale, this session fostered a sense of community and offered valuable support for ECRs.

1.1 Meet Junyi Zhang – ECR in a JTC 2022 funded project

Your name:

Junyi Zhang

Project in which you participate:

PLASTIG

What is your role in the project?

As a physician-scientist working with my mentor Prof. Dr. Dieter Henrik Heiland, my role in our PLASTIG project is to translate preclinical findings to clinical applications for glioblastoma, utilizing spatially resolved single-cell transcriptomics and advanced AI-driven multi-omic analysis.

How was your experience participating in the symposium?

The symposium provided a valuable platform to address pressing issues and receive insightful suggestions and feedback from peers. The diversity of research disciplines, and particularly the interactive sessions broadened my perspectives.

What's in your opinion the added value of being an ECR participating in TRANSCAN?

As an ECR, I often feel there is a gap between us and senior researchers due to our limited experience in grant application, management, and responsibility. Participating in this symposium was a precious and valuable live experience in progress reporting and enabled direct communication with other grant holders and funders, helping to bridge that gap.

Additionally, the agenda included complementary sessions on transversal topics such as patient engagement and responsible research and innovation to foster knowledge exchange and fruitful discussion among peers.

1.2 Workshop on Responsible Research and Innovation by QUEST Centre at BIH

Ulf Tölch and René Bernard from the QUEST Centre at the Berlin Institute of Health, provided the attendees with the interesting and participatory workshop "Towards robust evidence" that challenged the audience to question their own research, biases and procedures and engage in discussion with their peers.

After a joint introduction, the group was split in two sessions according to the different researcher profiles, in which the key following aspects were discussed:

- Transparency and Internal Validity (for ECRs and interested PIs)
- External and Translational Validity (for PIs)

From experimental designs and statement of hypothesis to replicability of results and challenges for replication to the relevance and translation to human disease conditions and clinical settings, all different aspects of research design and implementation were tackled giving researchers the chance to reflect on their own work and identify potential point for improvement.

Useful resources and literature recommended by QUEST:

- QUEST Center for Responsible Research website
- Science Forum: Improving preclinical studies through replications
- Planning preclinical confirmatory multicenter trials to strengthen translation from basic to clinical research – a multi-stakeholder workshop report
- Mapping strategies towards improved external validity in preclinical translational research
- Data analysis planning and reporting for confirmatory multi-lab preclinical trials
- What exactly is 'N' in cell culture and animal experiments?

1.3 Patient engagement in cancer research

Integrating the voice of patients in translational cancer research can improve its quality and impact by better aligning research priorities and processes with actual patients' needs. Collaborative efforts are needed for a meaningful and comprehensive engagement and thus participation from all different stakeholder clusters is essential in this context.

The patient engagement panel held at the symposium brought together the perspectives of three key players in this context, namely, patient associations (Juan José Ventura – Cancer Patients Europe), researchers (Manoj Lalu – Ottawa Hospital Research Institute) and funding agencies (Vanesa Abón - Scientific Foundation of the Spanish Association Against Cancer). The panel provided an excellent platform for constructive dialogue and meaningful exchange among participants.

> Integrating patient engagement into early-phase research, from preclinical laboratory studies to early-phase clinical trials, helps align scientific inquiry with real-world needs. At LabPartners, we have found that patient engagement shapes study design, enhances dissemination of findings, and reinvigorates the motivation of research teams. By embedding patient voices early in the research process, we are strengthening the bridge from the laboratory bench to patients' bedsides.
>
> **Manoj Lalu**

Useful resources:

- Patient engagement in preclinical laboratory research: A scoping review
- Promoting Patient Engagement in Early Phase Clinical Trials
- Policy Brief: Engaging Patients as Partners in Preclinical Laboratory Research
- How-to guide for patient engagement in the early discovery and preclinical phases
- LabPartners website
- Cancer Patients Europe website

Interview with Vanesa Abón – Manager of the Patient Advocacy program at the Scientific Foundation of the Spanish Association against Cancer (FCAECC)

Why and how does a funding organisation like FCAECC integrate the voice of patients in research?

Patients are the core of the mission from the Spanish Association against Cancer. The Association works on education and prevention, provides services for patients and their families, and supports cancer research via us, its Scientific Foundation. For this reason, at the Foundation, we are in close contact with the Association and thus with the patients and their needs.

In 2020 we initiated our Patient Advocacy programme as a pilot with which we started integrating patients in the evaluation of some of our research calls providing recommendations for the researchers.

After the success of this experience, we started expanding the list of regional offices that are included in the programme and the portfolio of calls in which we integrate the voice of patients. This programme allows us to ensure that the projects we fund are aligned with the patients' needs thus increasing their social impact, complementing the scientific evaluation of experts and becoming an educational tool for patients.

We are in touch with the scientific, patient and funder community and are continuously looking for best practices to further expand the scope of our initiative.

How are the patients recruited and trained?

We recruit the patients with the support of the regional offices that are in direct contact with the patients providing them with different services (psychological support, nutritional recommendations, physiotherapy, legal advice, etc). The regional office team assesses the availability of patient candidates suitable for the programme that meet established inclusion criteria. These may vary from call to call (e.g. certain features of their disease, participations to clinical trials or other, such as speaking English for international calls. Above all, the most important criterium is that we have the approval of the psychologist confirming that the patients are in an adequate emotional state to participate in such an activity.

The patients are invited to an info session in which the processes and expectations of the activity are explained, and questions answered.

In your experience, what is the feedback of both researchers and patients in this context?

Overall, we have had great feedback from both sides. Patients feel seen and heard and are very thankful that they get to participate and contribute to research with their own perspective meeting the professionals that do the work. On the other hand, researchers learn from patients, gaining a different point of view that they may lack being so close to the bench side.

2. Updates about the ongoing JTC 2024

As we continue progressing with TRANSCAN-3, we launched the fourth and final international call of this programme in March earlier this year. Following the evaluation we are now in the final stage leading to the award of JTC2024, which focuses on "Combination therapies against cancer: new opportunities for translational research."

During the preproposal phase, a total of 112 projects were submitted, involving 410 research groups from 17 different countries. After an eligibility check and the first round of evaluation by the Scientific Evaluation Committee (SEC), a total of 32 projects were invited to the full proposal stage.

In accordance with the call's timeline, the full proposals were recently submitted at the end of November and are now on their way to the second round of evaluation. The SEC will reconvene next spring for the final evaluation, and the award decisions are expected for May 2025.

27 March 2024	Publication of the call pre-announcement
26 April 2024 at 16:00 (CEST)	Opening of the on-line submission system for pre-proposals
05 July 2024 at 12:00 (CEST)	Deadline for pre-proposal submission
18 October 2024	Communication of the results of the pre-proposal assessment and invitation for full-proposal stage
18 November 2024	Opening of the submission system for full proposals
29 November 2024 at 12:00 (CET)	Deadline for full-proposal submission
Expected for May 2025	Communication of the funding decisions to the applicants
September 2025	Expected project start (also subject to regional/national procedures)

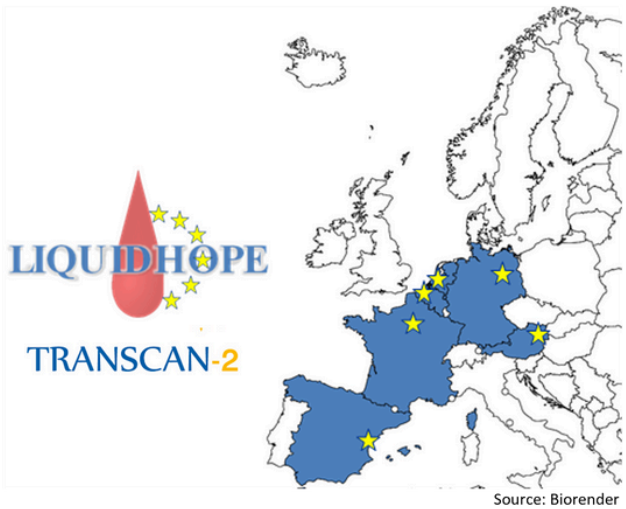
On behalf of both the SEC and the Network Steering Committee, we would like to express our gratitude and congratulations to all the candidate teams for their hard work and dedication.

3. TRANSCAN–2 Success stories

3.1 LIQUIDHOPE: Advancing liquid biopsies for monitoring and personalized treatment of children with neuroblastomas

Joint Call (JTC 2017) "Translational research on rare cancers"

Project duration: August 1st 2019 – December 31st 2022



Source: Biorender

Project Coordinator

Hedi Deubzer

Charité – Universitätsmedizin Berlin, Campus Virchow Klinikum, Department of Pediatric Hematology/Oncology/SCT (Berlin – Germany)

Project Partners

Gudrun Schleiermacher
Institut Curie, Département d'Oncologie Pédiatrique et INSERM U830 (Paris – France)

Jaime Font de Mora
Hospital Universitario La Fe - HULAFE, Clinical and Translational Research on Cancer, Laboratory of Cellular and Molecular Biology (Valencia – Spain)

Jo Vandesompele
Ghent University, Department of Biomolecular Medicine (Gent – Belgium)

Sabine Taschner-Mandl
Children's Cancer Research Institute (CCRI), St. Anna Kinderkrebsforschung, Department for Tumor Biology (Vienna – Austria)

Gam Tytgat
Prinses Máxima Centrum voor kinderoncologie, Department of Solid Tumors (Utrecht - The Netherlands)

The childhood tumor, neuroblastoma, accounts for 11% of all cancer-related deaths in children. Its heterogeneous tumor biology creates clinical variability spanning spontaneous regression to rapid metastasizing progression. Long-term survival of high-risk disease remains poor, with <50% overall survival after first-line treatment and <20% after relapse, despite considerable international efforts to improve treatment over the last decades. Liquid biopsies have the power to revolutionize clinical care for children with high-risk neuroblastoma by reflecting precise disease status at any time during treatment and care. Blood and bone marrow samples are a less invasive source of biomarkers for patient monitoring and therapeutic decision-making.

The LIQUIDHOPE consortium combined internationally recognized experts in neuroblastoma pan-omics and computational discovery with leading pediatric oncologists to advance this emerging clinical paradigm change. LIQUIDHOPE aimed to accelerate transfer of liquid biopsy approaches into the clinic within three parallel research arms designed to overcome current hurdles in (1) therapy response assessment, (2) minimal residual disease (MRD) monitoring and (3) actionable target identification, and define the best marker/analysis method or combination thereof for patient monitoring as its secondary aim.

LIQUIDHOPE applied targeted metabolomics; cfDNA whole-exome sequencing; cfDNA transcriptional start site and methylation profiling; unbiased total RNA profiling to monitor long noncoding and circular RNA disease markers; digital PCR of DNA/RNA disease markers; automated multiple marker imaging and sophisticated bioinformatics. LIQUIDHOPE identified potential predictive markers for treatment response, MRD, relapse and treatment choice in blood/bone marrow surrogates to advance unique liquid biopsy-based innovations for patient monitoring and personalized treatment of children battling neuroblastoma.

The scientific network established in LIQUIDHOPE provided the basis for our joint future work in the new EU TRANSCAN-3 EXPLORE-NB consortium (coordination H. Deubzer) characterizing the epigenomic landscape in liquid biopsies from patients with neuroblastoma and the HORIZON-MISS-2023-CANCER-01 pragmatic clinical trial, MONALISA.

3.2 Perspective of early-career researchers in TRANSCAN-2: Meet Dr. Coronado and Dr. Krienelke-Szymansky

Esther Coronado (Jaime Font de Mora lab)

"Completing my thesis research within the TRANSCAN-2-funded LIQUIDHOPE consortium has been an invaluable experience"

I conducted my PhD thesis research in Biotechnology at the Polytechnic University of Valencia, Spain as part of the LIQUIDHOPE project. I joined the Font de Mora lab at La Fe Hospital in Valencia, to work on the project "Understanding Immune Evasion in Neuroblastoma", with a fellowship also funded by the Spanish National Association for Cancer (AECC).

Findings from my work within LIQUIDHOPE have been published in one first-author and two coauthor papers, and I will defend my thesis in the coming months. Completing my thesis research within the TRANSCAN-2-funded LIQUIDHOPE consortium has been an invaluable experience. I feel my training as a scientist has greatly benefitted from networking with other international investigators, and most of all, from experiencing how collaborative cancer research is so effective and productive.

Annabell Krienelke-Szymansky (Hedwig Deubzer lab)

"Being part of LIQUIDHOPE was a highly rewarding experience, and has reinforced the value of international collaboration and the positive impact such partnerships can have on research"

What was your role in LIQUIDHOPE?

As a postdoctoral fellow in pediatric oncology at Charité Berlin, my role in LIQUIDHOPE focused on the technical development of personalized digital PCR assays that detect unique minimal residual disease markers, such as MYCN oncogene signatures, for monitoring neuroblastoma.

How do you think this project has advanced our knowledge about the disease?

LIQUIDHOPE has produced insights about molecular marker landscapes in patient blood with potential as neuroblastoma surrogates that have shown promise for early neuroblastoma recurrence or relapse detection and disease monitoring. LIQUIDHOPE results help to advance the use of liquid biopsies for neuroblastoma monitoring to improve patient outcomes by facilitating timely, tailored interventions. LIQUIDHOPE success reflects the synergy created by combining knowledge and resources from across borders.

What did the TRANSCAN-2 funding mean for your career?

TRANSCAN-2 funding was at a pivotal point in my career, directly following completion of my PhD, and combined with recognition through the Henrik Kreibohm Prize, has bolstered my professional profile in the field. It offered me a platform to conduct impactful research, work closely with international collaborators, further refine my technical skills and has strengthened my professional network, opened doors to future collaborations in pediatric oncology research.

How has the transnational collaborative aspect of the project contribute to its success?

Transnational collaboration was instrumental to our success, since it joined diverse expertise from partners across Europe and increased patient sample numbers, essential since pediatric cancers are rare.

A key partnership for me from LIQUIDHOPE was with Jo Vandesompele's lab at Ghent University. It kicked off frequent bilateral meetings that have been crucial in aligning our methodologies and sharing insights to co-develop new technologies and robust diagnostic tools for liquid biopsies and enabling assay cross-validation and data sharing.

4. Other initiatives from TRANSCAN-3 partners

fundación científica
asociación española
contra el cáncer

FCAECC - Madrid to host Cancer Grand Challenges workshop

Last November, the Scientific Foundation of the Spanish Association Against Cancer hosted in its headquarters in Madrid one of the three Cancer Grand Challenges workshops with the aim of identifying the most urgent challenges in cancer research.

Leading researchers from France and England took part in this meeting, together with other renowned Spanish researchers. This meeting is in addition to others held in cities such as Paris, London and New York, the results of which will guide the next Cancer Grand Challenges, scheduled for March 2025.
Cancer Grand Challenges, a global initiative co-founded by Cancer Research UK and the National Cancer Institute of the United States of America, seeks to accelerate advances in cancer through interdisciplinary collaboration at a global level.

Through this initiative, at FCAECC we support with more than €3 million two IRB Barcelona projects, led by Dr Nuria López-Bigas and Dr Cristina Mayor-Ruiz, focused on understanding the early stages of cancer and developing innovative treatments for paediatric tumours, respectively, and we look forward to further contributing to tackling these cancer challenges in the future.

CIHR-IRSC: COMING SOON, NEW CANCER PREVENTION FUNDING OPPORTUNITY

The Canadian Institutes of Health Research Institute of Cancer Research (CIHR-ICR) and partners have announced the upcoming funding opportunity Team Grants: Bringing Biology to Cancer Prevention. As cancer remains a leading cause of death worldwide, these grants aim to unite interdisciplinary research teams to advance the biological and mechanistic understanding of cancer etiology, genesis, and risk to ultimately inform more effective cancer prevention, early detection and risk reduction strategies. Read the pre-announcement.

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