Annual Report

Grant Period 4

COST Action CA21135 IMMUNO-model

"Modelling immunotherapy response and toxicity in cancer"

(2022-2026)

This report is based upon work from COST Action IMMUNO-model CA21135, supported by COST.

COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation. https://www.cost.eu/

Funded by the European Union

Document identification

Final version approved	**October 2026**
COST Action	**IMMUNO-model • COST Action CA21135** Start date – 02/11/2022 End date – 01/11/2026
Action Chair	**Eva Martinez-Balibrea**
Author(s)	Eva Martinez-Balibrea, Leticia Oliveira-Ferrer, Philippe Bertrand, Emanuela Senjor, Lukasz Skalniak Emmet Mc Cormack, Doreen Lau, Marleen Ansems, Maurizio Callari, Laura Belver, Rui Bergantim, Rosalinda Sorrentino, Gianmarco Contino, Denis Collins, Hanne Haslene-Hox, Catarina Rodrigues, Marta Maleszewska, Melanie Giorgi
Contact for queries	Action Chair Eva Martinez-Balibrea (embalibrea@iconcologia.net), Grant Holder Manager Melanie Giorgi (ghm_immunomodel@igtp.cat), WG5 Leader Rosalinda Sorrentino (rsorrentino@unisa.it)

Document history

Date	Version	Author	Comment
24.08.2026	V0.1	Rosalinda Sorrentino, Eva Martinez-Balibrea, Melanie Giorgi	First draft for internal writing and comments

21.09.2026	V0.2	Eva Martinez-Balibrea, Leticia Oliveira-Ferrer, Philippe Bertrand, Emanuela Senjor, Lukasz Skalniak Emmet Mc Cormack, Doreen Lau, Marleen Ansems, Maurizio Callari, Laura Belver, Rui Bergantim, Rosalinda Sorrentino, Gianmarco Contino, Denis Collins, Hanne Haslene-Hox, Catarina Rodrigues, Marta Maleszewska, Melanie Giorgi	Writing and revision
22.10.2026	V0.3	Barbara Breznik, Rosalinda Sorrentino, Melanie Giorgi	Revision
28.10.2026		Barbara Breznik, Rosalinda Sorrentino, Melanie Giorgi, Eva Martinez-Balibrea, Laura Belver, Emmet Mc Cormack	Revision and approval
30.10.2026		Barbara Breznik, Rosalinda Sorrentino, Melanie Giorgi, Eva Martinez-Balibrea	Final revision and approval

TABLE OF CONTENTS

1. Overview of activities in GP4 5
2. Overview of WG activities 7
2.1. WG1/WG3 7
2.2. WG2 8
2.3. WG4 9
2.4 WG5 and Science Communication activities 10
2.5 Patient Engagement Task Force 11
2.6 Knowledge Hub Task Force 12
3. Events 12
3.1. Workshops 12
3.2. Annual conference, Warsaw, Poland: "Modeling Immunotherapy for Cancer – Bridging Research to Clinical Application" 21
3.3. Webinars 31
4. Meetings 32
4.1. Core Group meetings 32
4.2. MC meetings 41
4.3. WG meetings 42
4.3.1 WG1 meetings 42
4.3.2 WG2 meetings 43
4.3.3 WG4 meetings 44
4.3.4 WG5 meetings 44
5. Mobility Grants 45
6. Dissemination and Communication Activities 50
6.1. Webpage and logo 50
6.2. Social media platforms 50
6.3. Promotional materials 50
7. Target Group Recruitment Committees (TGRCs) activities 51
8. Summary and future direction 55

1. Overview of activities in GP4

During the fourth Grant Period (GP4), many activities were carried out, details of which may be found in the following sections of this report. Of highlight are the two workshops and the Annual Conference.

The first workshop titled "Modelling Immunotherapy in 3D: Bridging the Gap to the Clinic" took place on 9th February 2026 in Barcelona, Spain, bringing together 102 unique participants (54 onsite + 48 online) participants in a hybrid format to discuss the latest advances in *3D modelling of immunotherapy*, from patient-derived organoids and tumour-on-chip platforms to innovative preclinical models. The event focused on the goals of IMMUNO-model: advancing preclinical models, fostering data sharing, and strengthening translational collaboration in immuno-oncology.

The second workshop titled "Models, Challenges and Promises of Advanced Therapies for Cancer: NK Cells in the Clinic and Industry" took place on 5-6 March 2026 in Madrid, Spain. The event brought together 112 participants in total, including early-career researchers and international scientists and clinicians, industry experts to share recent efforts in innovation on advanced therapies.

Finally, the fourth Annual Conference titled "*Building Bridges in Cancer Immunotherapy Modelling*" was held at the National Institute of Biology (NIB), Ljubljana, Slovenia, on 20-22 May 2026. The event was in a hybrid format, with a total number of 113 unique participants made up of researchers, clinicians and industry professionals dedicated to advancing preclinical immune-oncology. It was a resounding success in terms of collaborations because it strengthened current ones and opened up the way for new collaborations among participants and the Action. The event aimed to facilitate new collaborations and accelerate the translation of fundamental immuno-oncology research into treatment advances for patients. The conference also hosted the TGRCs Symposium, which explored gender from both a scientific and a structural perspective, featuring sessions on gender equality in research and clinical practice, the impact of sex differences on immunology and immunotherapy, and the relevance of incorporating gender into advanced experimental models.

<u>Meetings</u>

- Workshop 1 "*Modelling Immunotherapy in 3D: Bridging the Gap to the Clinic"* on 9th February 2026 in Barcelona, Spain, led by the Action Chair, Dr Eva Martinez-Balibrea. 102 unique participants.
- Workshop 2 "*Models, Challenges and Promises of Advanced Therapies for Cancer: NK Cells in the Clinic and Industry"*, 5-6 March 2026 in Madrid, Spain, led by Prof Mar Vales-Gomez, Department of Immunology and Oncology, Spanish National Centre for Biotechnology (CNB), Spanish National Research council (CSIC). 112 Unique Participants
- IMMUNO-model Final Annual Conference *"Building Bridges in Cancer Immunotherapy Modelling"*, on 20-22 May 2026, in Ljubljana, Slovenia. 113 Unique Participants.
- 10 Core Group Meetings, two in person.

- 1 virtual Management Committee Meeting.

Webinars

- Patient Webinar, titled "Immunotherapy in Cancer – How It Works and Why Challenges Remain" on 23rd April 2026. 48 Unique Participants.

Mobility Grants:

- 9 Short-Term Scientific Mission (STSM) Grants, of which 3 from ITCs
- 1 Inclusiveness Target Countries (ITC) Conference Grant
- 4 Young Research and Innovator Conference (YRI) Grants
- 1 Virtual Mobility (VM) Grant

Dissemination Materials:

- Update and maintenance of the IMMUNO-model Website sections
- 3 Podcasts
- 1 Newsletter
- 2 videos for patients
- 1 flyer for patients
- STSM, ITC, YRI, VM Grant reports
- 1 Booklet to summarise IMMUNO-model's work over 4 years

Budget

Activity	Approved Budget			Actual Expenditure		
CG Meeting Belgium 22/01	*9.948,90*	*0,00*	*9.948,90*	9.948,94	0,00	9.948,94
WKS IMMUNOtherapies Spain 09/02	*17.346,34*	*4.720,28*	*22.066,62*	17.346,50	4.720,28	22.066,78
WKS NK cell therapies Spain 05-06/03	*24.775,00*	*6.000,00*	*30.775,00*	22.525,07	8.500,00	31.025,07
Final Conference + CG meeting + TGRC Slovenia 20-22/05/2026	*67.744,00*	*8.500,00*	*76.244,00*	72.676,36	8.500,00	81.176,36
CG meeting Spain 8-9/10/2026	*0,00*	*0,00*	*0,00*	11.770,26	2.000,00	13.770,26
MC 1 Virtual						
CG meetings virtual x 10						
Webinars x 1						
STSM	*43.576,40*		*43.576,40*	26.040,00		26.040,00
VM	*1.500,00*		*1.500,00*	1.500,00		1.500,00
ITC Conference	*1.000,00*		*1.000,00*	1.168,00		1.168,00
Dissemination Conference	*1.000,00*		*1.000,00*	0,00		0,00
YRI	*5.000,00*		*5.000,00*	3.800,00		3.800,00
Scientific publication in Open Access	*11.000,00*		*11.000,00*	0,00		0,00
Website Maintenance	*1.750,00*		*1.750,00*	1.750,00		1.750,00
1 x Flyers for Patient Taskforce	*500,00*		*500,00*	500,00		500,00
2 x videos for Patient Taskforce	*7.200,00*		*7.200,00*	7.200,00		7.200,00
Booklet/video to wrap up Action	*3.000,00*		*3.000,00*	1.950,00		1.950,00
Poster	*0,00*		*0,00*	18,60		18,60
Printing Booklet	*0,00*		*0,00*	160,00		160,00
Bank charges	*650,00*		*650,00*	0,00		0,00
Sub-Total			**215.210,92**			**202.074,01**
FSAC 15%			32.281,64			30.311,10
Grand Total			**247.492,56**			**232.385,11**

2. Overview of WG activities

2.1. WG1/WG3

During 2026, several WG1/WG3 meetings and joint activities were organized throughout the year, providing a platform for researchers working on different aspects of cancer immunotherapy modelling to exchange ideas and identify new collaborative opportunities.

An important initiative was the online Matchmaking Event organized by Marleen Ansems, which attracted 76 participants from across the network. The event brought together researchers with complementary expertise and focused on identifying future funding opportunities and collaborative research topics. Participants presented project concepts covering areas such as computational immuno-oncology, tumour-immune interactions, liquid biopsies, advanced imaging technologies, functional genomics, AI-assisted cancer research, and innovative platforms for immunomodulator discovery. The matchmaking activity successfully stimulated new scientific interactions and provided a foundation for future multi-centre grant applications.

A substantial effort of WG1 and WG3 during 2026 was devoted to ensuring the continuation of collaborations beyond the lifetime of the COST Action. These activities were driven by the WG coordinators, who took leading roles in several strategic task forces established in November 2025 to explore sustainability pathways for IMMUNO-model after the end of COST funding. In particular, Maurizio Callari, co-coordinator of WG3, led Task Force 1, which investigated the possibility of transforming IMMUNO-model into a formal scientific network or association, while Marleen Ansems, co-coordinator of WG3, coordinated Task Force 3 focused on developing collaborative funding opportunities through Horizon Europe, MSCA Doctoral Networks and other international programmes. In parallel, Lukasz Skalniak, co-Leader of WG1, led Task Force 4, which evaluated opportunities for integrating the IMMUNO-model community into established scientific societies and networks. The coordinators organized

several TF-oriented online meetings. The conclusions were summarized during the Brussels Core Group meeting and subsequently continued through Core Group meetings, Annual Meetings, and dedicated WG and TF interactions. Together, these coordinated efforts reflected the strong commitment of the WG1 and WG3 leadership to establishing sustainable mechanisms that would enable the IMMUNO-model community to remain active and collaborative beyond the official closure of the Action.

One of the key results of activities in this area was a successful development and submission of a proposal to the EFIS Immunology Letters (EFIS-IL) Study Group initiative, coordinated by Catarina Rodrigues and Lukasz Skalniak. This outcome represents a tangible legacy of the Action and provides a sustainable framework for future scientific collaboration, networking, dissemination, and joint funding initiatives among former IMMUNO-model members.

In parallel, several WG members, including Marleen Ansems, Eva Martinez-Balibrea, Hanne Haslene-Hox, and Leticia Oliveira-Ferrer, explored the possibility of developing a new COST Action that could build upon the scientific achievements and collaborations established within IMMUNO-model. Discussions related to future networking strategies and the potential scope of a successor Action were presented and further developed during meetings held throughout the year.

During the GP4, the Knowledge Hub initiative was supported by publishing one additional protocol, which is now available online at the IMMUNO-model Knowledge Hub webpage (https://osf.io/nc89k/overview).

In addition to the formally documented activities, members continued to interact within several tumour-specific task forces, where scientific discussions, publication planning, and grant development activities further strengthened collaborative links across the network. Although these interactions were not always formally recorded, they contributed significantly to maintaining the scientific momentum generated by the Action and helped prepare the ground for future collaborative initiatives.

A major highlight of the reporting period was the WG1/WG3 Showcase and Discussion Session held during the Annual Conference in Ljubljana, Slovenia. This meeting enabled the leaders from both working groups to present ongoing projects, discuss current challenges, and explore opportunities for interdisciplinary collaboration.

Overall, the activities of WG1 and WG3 in 2026 not only supported the scientific objectives of the Action but also laid important foundations for the long-term sustainability of the IMMUNO-model community through new collaborations, funding initiatives, and integration into established European scientific networks.

2.2. WG2

During Grant Period 4, Working Group 2 (WG2) built on the scientific network and shared priorities established in earlier grant periods to focus on collaborative publications and the harmonisation of preclinical models for cancer immunotherapy. In GP1, WG2 had initiated exchanges through the online “Modelling Immuno-Oncology” workshop, spanning in vivo, ex vivo and in vitro approaches; in GP2, it sustained collaboration through meetings and a webinar. A key foundation for GP4 was the GP3 hybrid workshop “Harmonizing Models of Immunotherapy: Past, Present and Future Directions” in Bergen, Norway, which brought together 53 participants and 14 speakers and considered model systems ranging from zebrafish

to porcine models. The workshop helped establish five task forces that subsequently coordinated the review and commentary writing activities. These earlier events are provided as context for GP4 rather than claimed as GP4 activities.

In GP4, all five WG2 writing subgroups contributed to the comprehensive review "Harmonizing In Vivo Models for Cancer Immunotherapy: Community Standards, Consensus, and Methodology", prepared through the IMMUNO-model COST Action (CA21135). The manuscript addresses the strengths and limitations of in vivo cancer-immunotherapy models and the need for common methodological standards, improved comparability, reproducibility and translational relevance. Section leads coordinated contributions, references, tables and figures, while the writing leads consolidated material into an integrated manuscript. It was submitted to the Journal for ImmunoTherapy of Cancer on 16 July 2026 and is currently under review.

In parallel, the leaders of the five subgroups developed the commentary "Integration over replacement: a reality check for NAMs in immuno-oncology", which is also currently under review. It examines how New Approach Methodologies (NAMs) can complement rather than simply replace in vivo approaches, stressing fit-for-purpose validation and the integration of evidence from distinct model systems to address complex immunological questions.

WG2 writing-leads and section-leads meetings during GP4 supported manuscript drafting, discussion of FAIR data and interoperability principles, and preparation of a comparative table and graphical abstract. The resulting work reflects the wider WG2 approach described in its activity booklet: scientific exchange across diverse preclinical model systems, cooperation between countries and disciplines, and active inclusion of researchers from Inclusiveness Target Countries (ITCs) and Young Researchers and Innovators (YRIs), including opportunities to contribute to and co-lead collaborative publications. The booklet also notes wider research collaborations and grant-related activity arising from the WG2 network; these are not presented here as newly secured GP4 outcomes because their timing is not established. Together, the two manuscripts represent tangible GP4 outputs from a collaborative network developed over the preceding grant periods.

2.3. WG4

During GP4, WG4 members turned their attention to consolidating the rich web of collaborations built over the past four years, transforming short-term contacts into lasting scientific partnerships. The clearest testament to this success is the subgroup that secured funding for an MSCA Doctoral Network, a major achievement that has become a flagship outcome of WG4. Far from treating this as an endpoint, these members have continued tightening the links between them, actively nurturing a community designed to carry the spirit of IMMUNO-model well beyond the Action's lifetime. As part of this momentum, they are organizing a symposium on experimental therapeutics in hemato-oncology, to be held in November 2026. The event is deliberately designed with younger researchers in mind, offering a dedicated educational track that will unpack the current state of the art in the field, with particular attention to the experimental models available for studying novel advanced therapies.

This progress has also translated into concrete funding pursuits. WG4 members have submitted grant applications across multiple prestigious calls, including calls from the European Hematology Association (EHA), TRANSCAN, and EP PerMed, among others. This reflects how effectively the networking fostered by IMMUNO-model is actively being converted into tangible research investment. In parallel, several participants are now co-authoring joint

manuscripts, not yet published, that trace their origin directly back to connections forged through WG4.

These achievements, together with a retrospective look at the full trajectory of WG4, were showcased and discussed at the Annual Conference in Ljubljana. There, participants were also invited to contribute ideas on how to keep the IMMUNO-model community thriving once the project formally concludes.

Taken together, GP4 stands as the period in which WG4 moved from building connections to cementing them, reinforcing the most productive collaborations and ensuring they endure as the IMMUNO-model's lasting legacy.

2.4 WG5 and Science Communication activities

The activities underlying this WG were performed by gathering other WGs' activities to be disseminated by means of the website, social media, scientific meetings and manuscripts, etc. In this regard the following are the activities that were performed during GP4:

- Implementation of the Dissemination & Communication Plan approved by MC in the previous GP.
- Webpage and social media platform management (LinkedIn, X, YouTube channel, Instagram)
- Organization of events, activities of IMMUNO-model to be archived to the open-access repository (OSF: https://osf.io/nc89k/overview)
- Promotional materials (logo, flyers, videos, ppt templates)
- Dissemination of IMMUNO-model activities and results (scientific papers, social media advertisements etc.)
- Collaboration with the MC to define the best options and tools to pursue the objectives of WG5 (emails, members area on webpage, flyers, etc.)
- Organizing and coordinating Webinars
- Organizing and coordinating Podcasts
- Participation in the Patients Engagement Task Force
- Drafting the GP4 Annual Report

Dissemination activities:

ITEM / ACTIVITY	TARGET AUDIENCE	RESULT	HYPERLINK
Management of the overview of SMEs within immunology+oncology with profiles on LinkedIn, to identify potential members to approach for recruitment	SMEs, Industry	New members of IMMUNO-model	https://www.linkedin.com/company/92496747/admin/dashboard/
Website	Researchers interested in	Information to all interested scientists in the field of immunotherapy as well as members	https://www.immuno-model.eu/

	immunotherapy		
Advertisement of webinars through the website and social media	Researchers interested in immunotherapy	Information to all interested scientists in the field of immunotherapy as well as members	Visit the website
Presentation of IMMUNO-Model	Cancer Patient Organisation, UKE, Hamburg, Germany	Patient Engagement Task Force	https://www.immuno-model.eu/patient-information/
2 Patients videos with different language subtitles	Patients interested in immunotherapy	Disseminate educational material and information via CA21135 that increased enthusiasm at acknowledging scientists' activities in terms of IMMUNO-model: Patients' involvement	https://www.immuno-model.eu/patient-information/
Patients Flyer	Patients interested in immunotherapy	Promote CA21135 COST Action and its objectives to be disseminated among patients.	https://www.immuno-model.eu/patient-information/
Newsletter	Researchers, industry, students	Highlights CA21135 activities and the achievement of its objectives	https://www.immuno-model.eu/#popup-menu-news
IMMUNO-model knowledge HUB using Open Science Framework (OSF) platform	Cancer researchers, students, industry, clinicians	Public repository for protocols	https://osf.io/nc89k/overview
Public repository IMMUNO-model COST Action activities	Cancer researchers, students, industry, clinicians	Public available activities of IMMUNO-model	www.osf.io
Podcasts	Cancer researchers, students, industry, clinicians	Dissemination of knowledge	https://www.immuno-model.eu/category/podcast-series/

2.5 Patient Engagement Task Force

The Patient Engagement Task Force of the COST Action IMMUNO-model, led by Vice-Chair Leticia Oliveira-Ferrer, has brought together scientists, healthcare providers, patients and representatives of cancer patient organisations to improve patient involvement in immunotherapy research and implementation. During GP4, IMMUNO-model activities have

focused on fostering dialogue between patients and researchers, bridging the gap between cutting-edge science and patient-centred care.

A key priority has been the development of clear, accessible educational materials to increase patients' awareness of recent advances in immunotherapy and immunomodulation, while also providing basic information on these approaches and the objectives of the COST Action. In particular, two educational videos for patients have been developed, together with a patient-oriented flyer translated and written in several languages (https://www.immuno-model.eu/patient-information/). The flyer was disseminated through hospitals across different Member States of the COST Action, ensuring that the information could reach patients from diverse linguistic and geographical backgrounds.

These resources have been designed to empower patients with accessible and reliable knowledge, helping them better understand the principles of immunotherapy and immunomodulation, as well as the latest scientific developments in the field. Their dissemination through hospitals and other relevant channels will facilitate direct engagement with patients and support greater awareness of ongoing advances in cancer research.

In addition, webinars organised by the IMMUNO-model COST Action Chair and Vice-Chair, together with other members and Working Group leaders, have provided further educational opportunities for patients and other stakeholders. The Patient Engagement Task Force also prioritised a strong patient presence at conferences and workshops organised by the COST Action, promoting direct interaction between patients, researchers and healthcare professionals.

IMMUNO-model further promoted patient involvement in research planning, ensuring that patients' perspectives and needs could contribute to the development of future immunotherapy research and clinical trials. Through these initiatives, IMMUNO-model aimed to strengthen the partnership between science and patient advocacy, improve patients' access to understandable scientific information, and ultimately contribute to advances that enhance the accessibility and impact of cancer immunotherapies

2.6 Knowledge Hub Task Force

The Knowledge Hub Task Force has been established to create an open-access database for experimental protocols related to immuno-oncology models, at the basis of IMMUNO-model objectives. The task force comprises seven young researchers (within ten years post-PhD) from Slovenia, UK, Switzerland, Ireland, Romania, France, and Sweden. It maintains gender balance with four female and three male members. Regular communication was held with CA Vice Chair Leticia Oliveira Ferrer, who actively supported the task force during meetings and contributed to decision-making processes. At the moment it has collected **5** open-access experimental protocols. This facilitates innovation and standardization in immuno-oncology research. A DOI was created: **https://doi.org/10.17605/OSF.IO/NC89K**

3. Events

3.1. Workshops

3.1.1 *1st Workshop "Modelling Immunotherapy in 3D: Bridging the Gap to the Clinic"* on 9th February 2026 in Barcelona, Spain, led by the Action Chair, Dr Eva Martinez-Balibrea.

Objective: Explore the latest advances in 3D modelling of immunotherapy.

The workshop opened with welcome remarks from the Action Chair, Eva Martinez-Balibrea, and Jordi Barretina, IGTP Director, Badalona, Spain. The workshop was characterized by an engaging scientific program with excellent presentations from early-career and senior researchers. Speakers addressed diverse topics, including patient-derived organoids, immune-epithelioid, tumour-on-chip, all 3D models/platforms that are intended to innovate preclinical models that bring research closer to clinical application. The workshop effectively showcased a broad range of *3D immunomodels* enabling participants to reflect on common strengths and limitations such as predictive power, clinical relevance, and translational potential. Invited speakers included:

- **Professor Calvin J Kuo (**Stanford University School of Medicine, Stanford, CA 94305 USA): his research interests include development of complex human organoid models that co-preserve tumor or tissue epithelium en bloc with resident immune and stromal populations for study of tumor immunotherapy, autoimmunity and infectious disease.
- **Dr. David Fernandez-Antorán (**IIS-Aragon, Hospital Universitario Miguel Servet (Zaragoza, Spain): he developed an innovative *in vitro* system, "epithelioids", which supports the long-term maintenance of 3D epithelial cultures derived from both mouse and human normal and tumour tissues.
- **Dr. Krijn Dijkstra (**Netherlands Cancer Institute): his work focuses on understanding how cancer cells drive immune evasion in heterogeneous tumors, using patient-derived tumor organoid–immune cell co-culture systems to dissect interactions between cancer and the immune system. to explore how cancer diversity and the secretome drive immune resistance (Portugal), Johanne Jacobsen (Norway), and Enni Markkanen (Switzerland).
- **Dr. Lauriane Cabon (**Roche Institute of Human Biology): she developed next-generation human immuno-organoid platforms that incorporate an autologous, tissue-resident immune compartment, spanning both innate and adaptive lineages.
- **Professor Frances Balkwill OBE FMedSci FRS (**Cancer Biology at Barts Cancer Institute, Queen Mary University of London, and Deputy Centre Lead in the Centre for Tumour Microenvironment): she is especially interested in translating knowledge of cancer biology into new biological treatments for cancer.
- **Dr. Maria Carla Parrini (**Institut Curie, Paris): she pioneered the development and application of tumor-on-chip (ToC) technology.
- **Dr. Mercedes Machuca-Ostos** (Netherlands Cancer Institute): she characterized the T cell dynamics of multiple longitudinal paired tumor and blood samples in combination with ex vivo models of ICB response.
- **Dr. Jens Michael Kelm (**Chief Scientific Officer and co-founder of PreComb Therapeutics AG, Switzerland): He co-founded InSphero AG, a pioneer in microtissue-based assays and organ-on-a-chip solutions.
- Additional 4 oral speakers were chosen among the submitted abstracts.

These presentations highlighted innovative approaches and future directions in modelling immune responses to cancer.

The workshop was very successful and a good starting point for future collaborations within the group.

Number of participants: 102 unique participants (54 onsite + 48 online).

Target audience: clinical and preclinical researchers in Oncology, Pharmacologists, Immunologists, Pathologists, advanced scientists, postdocs and PhD students and professionals working in immunotherapy and modeling of biomarkers.

Scientific Committee:

Eva Martinez-Balibrea - Chair of IMMUNO-model COST Action, Germans Trias i Pujol Research Institute (IGTP) and Catalan Oncology Institute (ICO), Spain
Vitor Gaspar – University of Aveiro, Portugal
Ana Mitrovic - Jožef Stefan Institute, Slovenia
Hatim Boughanem - Cordoba Institute for Biomedical Research (FIBICO), Spain
Local Organizing Committee

Local Organising Committee:

Eva Martinez-Balibrea - Chair of IMMUNO-model COST Action, Germans Trias i Pujol Research Institute (IGTP) and Catalan Oncology Institute (ICO), Spain
Arola Fortian - Germans Trias i Pujol Research Institute (IGTP), Spain
Beatriz Gonzalez - Germans Trias i Pujol Research Institute (IGTP), Spain Sara Bystrup - Germans Trias i Pujol Research Institute (IGTP), Spain
Sara Bystrup - Germans Trias i Pujol Research Institute (IGTP), Spain
Ferran Grau - Germans Trias i Pujol Research Institute (IGTP), Spain
Sergio Alonso - Germans Trias i Pujol Research Institute (IGTP), Spain
Jordi Barretina – General Director, Germans Trias i Pujol Research Institute (IGTP) and Catalan Oncology Institute (ICO), Spain

Program with topics:

9th February 2026
8:30 – 9:00 Registration

9:00 – 9:15 Session I Welcome

Eva Martinez-Balibrea, Chair of IMMUNO-model COST Action (Badalona, ES);

Jordi Barretina, IGTP Director (Badalona, ES).

Session I

Chairs: ***Sara Bystrup***, Germans Trias i Pujol Research Institute (IGTP) (Badalona, ES) & ***Vitor Gaspar***, University of Aveiro (Aveiro, PT).

9:15 – 9:35 **Strength through diversity: Patient-derived organoids to dissect the heterogeneity of immune evasion in cancer**

Krijn Dijkstra, The Netherlands Cancer Institute (Amsterdam, NL)

9:45 – 10:05 **Immuno-Epithelioids: Preclinical in vitro modelling of immune–epithelial dynamics for immunotherapy development**

David Fernandez-Antorán, IIS-Aragon (Zaragoza, ES) and The Gurdon Institute, University of Cambridge (Cambridge, UK)

10:15 – 11:00 Coffee break

11:00 – 11:20 **Modelling Immunotherapy-Associated Toxicities in Human Autologous Immuno-Organoids**

Lauriane Cabon, Roche Institute of Human Biology (Basel, CH)

Session II

Chairs: ***Arola Fortian***, IGTP (Badalona, ES) & ***Ferran Grau***, IGTP (Badalona, ES).

11:30 – 11:50 **Multi-cellular models of the ovarian cancer microenvironment to study immunotherapies**

Frances Balkwill, Centre for Tumour Microenvironment; Barts Cancer Institute, Queen Mary University of London (London, UK)

12:00 – 12:20 **Tumor-on-Chip as a personalised immunocompetent platform for rapid drug testing**

Maria Carla Parrini, Institut Curie - Inserm U1339 - CNRS UMR3666 (Paris, FR)

12:30 – 12:50 **Modelling antitumour immune responses in human tumours to decode ICB clinical outcome**

Mercedes Machuca-Ostos, The Netherlands Cancer Institute; Oncode Institute (Amsterdam, NL)

13:00 – 14:00 Lunch Break

Featured Talk

14:00 – 14:30 **Modelling human tumour and tissue microenvironments using organoids**

Calvin J Kuo, Stanford University School of Medicine (Palo Alto, USA)

Session III

Chairs: ***Hatim Boughanem***, Cordoba Institute for Biomedical Research (FIBICO) (Cordoba, ES) & ***Beatriz Gonzalez***, IGTP (Badalona, ES).

14:40 – 15:10 **A Scalable 3D Ex Vivo Platform for Long-Term Immuno-Oncology Drug Screening in NSCLC**.

Jens Kelm, CSO, PreComb AG, (Hombrechtikon, CH)

Short Talks

15:20 – 15:35 **Short Talk 1. Targeting HIF2α and PD-1 axes in patient-derived models of renal cancer**

Maitane Márquez López, Biogipuzkoa Health Research Institute (San Sebastian, ES)

15:40 – 15:55 **Short Talk 2. Establishing an Ovarian Cancer Patient AVATAR Using Malignant Ascites to Study Immunotherapy Approaches**

Melissa Shahriari, University Medical Center Hamburg-Eppendorf (Hamburg, DE)

16:00 – 16:15 **Short Talk 3. Microfluidic modelling of CAR-T cell trafficking and cytotoxic activity in solid tumours**

Jack Zhang-Zhou, University of Zaragoza (Zaragoza, ES)

16:20 – 16:35 **Short Talk 4. Exploring the Potential of BCG-Primed Anti-Tumour NK Cell Immunotherapy in 3D Preclinical Systems**

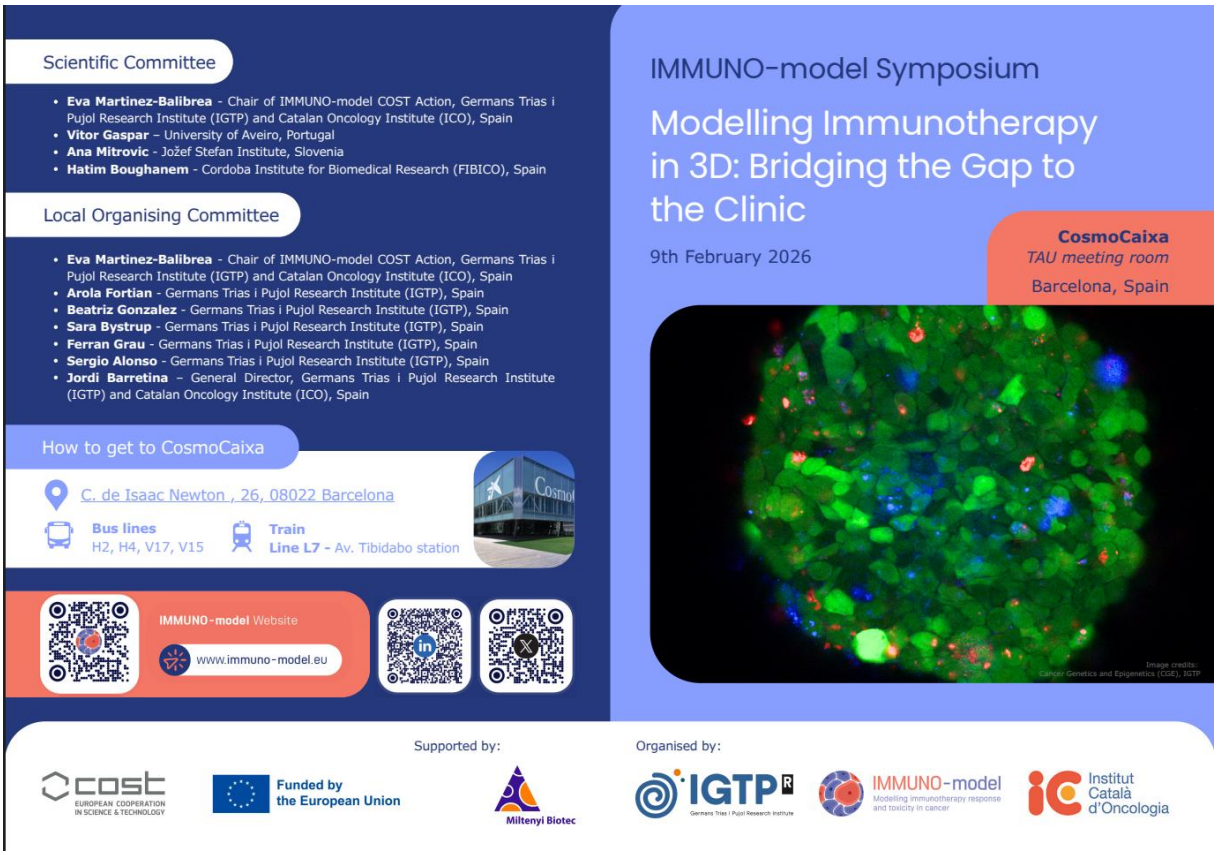
Maria-Jose Felgueres, Spanish National Centre for Biotechnology (CNBCSIC), (Madrid, ES)

16:40 – 17:20 Round Table

Chairs: Eva Martinez-Balibrea, IGTP and Catalan Oncology Institute (ICO) (Barcelona, ES) & Sergio Alonso, IGTP (Badalona, ES).

17:20 – 17:30 **Closing remarks**

Eva Martinez-Balibrea, IGTP and ICO (Barcelona, ES).



https://www.immuno-model.eu/newss/registrations-are-now-open-for-immuno-model-event-modelling-immunotherapy-in-3d-bridging-the-gap-to-the-clinic/

3.1.2 *2nd Workshop "Models, Challenges and Promises of Advanced Therapies for Cancer: NK Cells in the Clinic and Industry"*

The workshop was held on 5-6 March 2026 in Madrid, Spain, led by Prof Mar Vales-Gomez, Department of Immunology and Oncology, Spanish National Centre for Biotechnology (CNB), Spanish National Research council (CSIC).

The IMMUNO-model COST Action workshop, entitled **Models, Challenges and Promises of Advanced Therapies for Cancer: NK Cells in the Clinic and Industry,** was organized by Dr Mar Vales Lab **CNB-CSIC**, brought together leading international experts to discuss the latest advances in translating NK cell research to the clinic. The meeting featured cutting-edge scientific talks and highly interactive discussions. Particularly engaging were the **round tables with regulatory agencies and industry representatives as well as investors**, which explored key challenges in moving advanced cell therapies from the laboratory to clinical and commercial development. The event provided an excellent platform for scientific exchange and for strengthening collaborations in the field of NK cell immunotherapy.

Number of participants: 112

Target audience: clinical and preclinical researchers in Oncology, Pharmacologists, Immunologists, Pathologists, advanced scientists, postdocs and PhD students and professionals working in immunotherapy and immuno-oncology field.

LOCAL ORGANISER:
Prof. Mar Vales-Gomez, Department of Immunology and Oncology, Spanish National Centre for Biotechnology (CNB), Spanish National Research council (CSIC)

SCIENTIFIC PROGRAM ORGANISERS:

Prof. Mar Vales-Gomez, Department of Immunology and Oncology, Spanish National Centre for Biotechnology (CNB), Spanish National Research council (CSIC)
Prof. Francisco Borrego, Immunopathology Group, Biobizkaia Health Research Institute, Barakaldo, Spain; Ikerbasque, Basque Foundation for Science, Bilbao, Spain.
Prof. Antonio Perez-Martinez, Head of Pediatric Hemato-Oncology University Hospital La Paz, Associate Professor Universidad Autónoma de Madrid, CIBERER-ISCIII, IdiPAZ-CNIO Pediatric OncoHematology Clinical Research Unit, Madrid, Spain

SCIENTIFIC COMMITTEE AND ABSTRACT SELECTION:

Mar Vales-Gomez
Antonio Perez-Martinez
Francisco Borrego
Margareta Correia, Senior Scientist and Team Leader in Onco-Immuno-Epigenetics, IPO Porto Research Center, Portugal
Barbara Breznik, Department of Genetic Toxicology and Cancer Biology, National Institute of Biology, Ljubljana, Slovenia
Aura Muntasell, Hospital del Mar Research Institute (HMRIB), Barcelona, Spain Hugh Reyburn, Department of Immunology and Oncology, Spanish National Centre for Biotechnology (CNB), Spanish National Research council (CSIC), Spain

WORKSHOP SECRETARIAT:

Azul congresos
Silvia Suárez Rivera
Pelayo Estrada Suárez

Program with topics:

Day 1: 5th March 2026

08:00 Arrival / registration
09:00 Welcome session: About IMMUNO-model COST action, E. Martínez Balibrea Welcome to CNB, M. Valés-Gómez
09:30 **Session 1**: **Tumour recognition by NK cells**

Prof. David Raulet University of California, Berkeley & Co-founder Dragonfly Inc. *Activation, Suppression and Regulation of Immunotherapy Responses of NK cells Against Tumors*
Prof. Jordan Orange Children's Hospital of Philadelphia.

Exploiting the mechanics of NK cell cytotoxicity to improve tumoricidal activity

10:45 Coffee break

11:30 **Session 2**: **NK cell enhancer biomolecules**
Prof. Eric Vivier Aix-Marseille University.
Harnessing NK cells in cancer therapies
Prof. Luis Álvarez-Vallina CNIO and Doce de Octubre Hospital.
Bridging T and NK Immunity: STAb-T Secreting NK Cell Engagers for Cancer Control

12:30 **Short talks from abstracts**
Aleksandra Ilic, PhD University of Belgrade.
Targeting SIRT2: novel inhibitors for improved antitumor immune response
Paula Martín Rubio, PhD student IIS Aragon.
The key role of NK cells controlling lung metastasis from gastrointestinal tumors

13:00 Lunch break

14:40 **Sponsor talk**:
Jose Luis Mateos, PhD Scientific affairs Managers, Miltenyi Biotec Spain.
Bench to bedside in NK Cellular Therapies

15:00 **Session 3: Successful NK cell-based therapies in the clinics**
Prof. Katy Rezvani ONLINE Vice President and Melvyn N. Klein Family Endowed Director, Institute for Cell Therapy Discovery & Innovation, Sally Cooper Murray Endowed Chair in Cancer Research, Professor of Medicine, Medical Director, Stem Cell Transplant and GMP Laboratories, Houston, Texas.
Optimizing NK Cell Engineering for Therapeutic Efficacy
Dr. Dean Lee Nationwide Children's Hospital and The Ohio State University Comprehensive Cancer Center.
Establishing a universal-donor manufacturing platform to enable multi-site trials of multiple NK and CAR-NK products

16:30 **Round table regulatory aspects: how to understand guidelines for experimental design, how to adapt research to adapt GMP conditions, how to reach regulatory agencies**

Dr. Sol Ruiz (Head of Biologics, Advanced Therapies, and Biotechnology, Spanish Medicines Agency, AEMPS/EMA).
Regulation of biologics and advanced therapies in the EU
Dr. Sheila López (Citospin, S.L. and CSIC).
How to translate a basic research method into GMP
Dr. Alejandra Leivas (Senior Regulatory Consultant & Project Manager, Advanthera Regulatory Pathways).
When NK Cell Research Meets GMP Scale-Up

PANELISTS: E. Vivier, K. Malmberg

17:30 **Poster walk** (with snacks)

Day 2: 6th March 2026

09:00 **Session 3: Successful NK cell-based therapies in the clinics (continued)**

Prof. Ulrike Kohl Director of the Fraunhofer-Institute for Cell Therapy and Immunology, Leipzig, Germany, and Director of the Institute of Clinical Immunology, University of Leipzig. + Dr. Dominik Schmiedel.
From CAR T to CAR NK cells: Pushing the boundaries in cancer treatment and beyond
Prof. Todd Fehniger Professor of Medicine, Washington University, St. Louis.
Memory-like NK cell immunobiology and therapy

10:30 **Sponsor talk**:

Leonor Asón, Thermofisher,
3D models as predictive systems in cancer immunotherapy

10:45 Coffee break

11:30 **Short talks from abstracts**

María José Felgueres, PhD CNB-CSIC.
Toward Clinical Translation of BCG-Primed NK Cell Immunotherapy
Anamarija Habič, PhD student National Institute of Biology, Slovenia.
Glioblastoma spheroids uncover distinct NK cell interactions with differentiated and stem-like glioblastoma cells

11:50 **Round table**: **The clean room and therapeutics production**

Dr. Charo Sánchez Pernaute Instituto de Investigación Sanitaria Biobizkaia, Barakaldo.
How to create a unit for advanced therapy products in the Public System
Dr. Belén Álvarez Palomo Research Department, Banc de Sang i Teixits (BST), Vall d'Hebron Institute of Research (VHIR), Barcelona.
The clean room: limiting aspects and scale-up

PANELISTS: L. Alvarez-Vallina, R. Romee, D. Lee

13:00 Lunch break

14:40 **Sponsor talks**:

Jaime Valentín Quiroga, PhD Product specialist, Palex.
Jumping into high dimensional space: deep NK phenotyping with spectral flow cytometry

15:00 **Short talks from abstracts**

Jonas Van Audenaerde, PhD Univeristy of Antwerp.
Development of CAR-NK cell therapies for difficult-to-treat tumours from bench to bedside
Lucía Fernández Casanova, PhD CNIO.
CAR T cells based on NK cell receptors exert potent anti-tumor activity against pediatric malignant CNS tumors

15.20 **Round table**: **advanced therapies from the lab to industry. Science, investment and business aspects.**

Dr. Anabel Sanz Director of Innovation, CRG.

Building Bridges for Impact: Knowledge Transfer as a Catalyst for Meaningful Innovation
Gemma Guinart Principal, Invivo partners.
Invivo: accelerating innovation in cell therapies through tech transfer from research centers
Dr. Carolina Pola CEO Stab therapeutics.
De-Risking Innovation in Advanced Cell Therapies: Lessons Learned from a Spin-Off Journey

PANELISTS: E. Vivier, D. Raulet, T. Fehniger, U. Kohl

16:35 Coffee break

17:00 **Session 4: Spotlight on future immunotherapy approaches**.

Prof. K. Malmberg, The Precision Immunotherapy Alliance, PRIMA, University of Oslo, Norway.
Guiding the innate power of natural killer cells in cancer therapy
17:30 Dr. Rizwan Romee Dana Farber Cancer Institute, Harvard Medical School. *Engineering Novel NK Cells and Living Immune Engagers to Enhance Cancer Immunotherapy*

18:00 **Concluding remarks and farewell**



https://www.immuno-model.eu/wp-content/uploads/2026/07/ABSTRACT-BOOK.pdf

3.2. Annual conference, Warsaw, Poland: "Modeling Immunotherapy for Cancer – Bridging Research to Clinical Application"

The fourth (final) Annual Conference was held at the National Institute of Biology, Ljubljana, Slovenia on 20-22nd May 2026. The event had a hybrid format, with a total number of 113 researchers, clinicians and industry professionals dedicated to advancing preclinical immune-

oncology. It was a resounding success in terms of collaborations because it strengthened current collaborations and opened up the way for new collaborations among participants and the Action.

The conference, which was organized at the National Institute of Biology (NIB), Ljubljana, Slovenia, bringing together an international community of 113 Unique Participants including researchers, project partners, researchers, clinicians, industry representatives, and other stakeholders involved in advancing preclinical cancer models in immunology research. Organized within the framework of our COST Action, the meeting was held under the theme *"Building Bridges in Cancer Immunotherapy Modelling"*, celebrating the culmination of four years of the IMMUNO-model project, dedicated to fostering research and innovation in the field of preclinical immuno-oncology models and providing an opportunity to present the project's key achievements, share scientific results, and discuss future directions in the development and application of advanced preclinical immuno-oncology models. In fact, the conference was intended not only to present the achievements of the IMMUNO-model consortium but also to create conditions for the continued development of innovative cancer immunotherapy approaches and future international collaborations.

The conference aimed to:

- Showcase the scientific achievements of the IMMUNO-model consortium and its four years of collaborative work in cancer immunotherapy modelling.
- Promote collaboration and networking between academic researchers, clinicians, and industry stakeholders to strengthen translational cancer research.
- Advance the development and standardization of preclinical immuno-oncology models, which are essential for understanding immune responses to cancer and for testing new therapeutic strategies.
- Accelerate translation of research findings into clinical applications, ultimately improving treatment outcomes and quality of life for cancer patients.
- Address gender-related aspects of cancer research and immunotherapy through the TGRC Symposium, including gender equality in research, sex differences in immunology and immunotherapy, and the incorporation of gender considerations into experimental models.

The conference featured a series of keynote lectures, project presentations, panel discussions, and networking sessions. Project partners presented results achieved across the different work packages, highlighting progress in the development, validation, and application of innovative immunocompetent disease models.

The conference featured keynote lectures by Dr. Jérôme Galon (INSERM, Sorbonne Université, France), Dr. Erik Arntzen (Radboudumc, The Netherlands), Dr. Elisa Oricchio (EPFL, Switzerland), and Prof. Frederik De Smet (KU Leuven, Belgium), who presented recent advances in cancer immunology, translational immunotherapy, tumor microenvironment research, and preclinical modelling approaches.

The conference agenda also included several invited speakers in the TGRC Symposium, such as:

- **Shirin Heidari** (GENDRO, Switzerland)

- **Berna Özdemir** (Bern University Hospital, Switzerland)
- **Sonja Loges** (University Cancer Center Hamburg, Germany)
- **Camila Consiglio** (Lund University, Sweden)

The conference was structured around five major themes: (i) the TGRC Symposium addressing gender equality and sex differences in immunology and immunotherapy, (ii) scientific sessions on preclinical cancer immunotherapy models and translational research, (iii) poster and short communication sessions, (iv) roundtable discussions fostering collaboration among academia, clinicians and industry, and (v) industry networking and technology-focused presentations.

Particular attention was given to:

- Development of advanced 3D cellular models and patient-derived tumor models.
- Integration of immune components into preclinical disease models.
- Applications of personalized medicine approaches.
- Evaluation of therapeutic responses using physiologically relevant model systems.
- Challenges and opportunities in translating research findings into clinical practice.

The presented results demonstrated the value of advanced model systems in improving our understanding of disease mechanisms and supporting the development of more effective therapeutic strategies.

Key Outcomes

The conference highlighted several important achievements of the IMMUNO-model project:

- Successful establishment and validation of innovative experimental models that better reflect human disease biology.
- Strengthened interdisciplinary collaboration among consortium partners.
- Generation of valuable scientific knowledge supporting translational and personalized medicine approaches.
- Dissemination of project results to the broader scientific and professional community.
- Identification of future collaborative initiatives and funding opportunities.

The discussions emphasized the importance of continuing efforts to develop predictive preclinical models that can reduce the gap between laboratory research and clinical application.

The event provided an excellent platform for networking and exchange of expertise among participants from different sectors. Researchers had the opportunity to discuss emerging technologies, share best practices, and explore potential future collaborations. 30 posters were presented.

The IMMUNO-model Final Conference successfully showcased the scientific achievements and collaborative efforts realized throughout the project. The event demonstrated the significant progress made in the development of advanced immunocompetent disease models and

highlighted their potential to accelerate biomedical research and support personalized therapeutic strategies.

The conference concluded with a strong commitment from participants to continue collaborative activities, further develop innovative model systems, and pursue new research opportunities that build upon the foundation established by the IMMUNO-model project.

A strong presence of early-career researchers was particularly evident in the selected oral presentations, which showcased high-quality work and cutting-edge methodologies. Their active engagement throughout the conference reflected the growing role of young scientists in driving innovation across the field of immuno-oncology.

Throughout the event, poster sessions provided an interactive platform for both early-career and senior researchers to share novel findings, with topics ranging from immune evasion and tumor microenvironment remodeling to nanovaccine development and spatial immunomics.

The conference also included working group meetings on day 1 (20th May 2026) of the IMMUNO-model network, reinforcing its collaborative spirit. The event successfully showcased the value of integrated, multidisciplinary preclinical modelling in the development of innovative and effective cancer immunotherapies, reaffirming the IMMUNO-model initiative's commitment to fostering translational research and cross-sector collaboration in immuno-oncology.



Chairs of the organising committee:

Assist. Prof. Barbara Breznik, PhD National Institute of Biology, Slovenia
Assist. Prof. Metka Novak, PhD National Institute of Biology, Slovenia

Organising committee:
• Barbara Breznik, National Institute of Biology, Slovenia
• Metka Novak, National Institute of Biology, Slovenia
• Špela Kladnik, National Institute of Biology, Slovenia
• Pia Žižek, National Institute of Biology, Slovenia
• Emanuela Senjor, Jozef Stefan Institute, Slovenia
• Bernarda Majc, National Institute of Biology, Slovenia
• Anamarija Habič, National Institute of Biology, Slovenia

Scientific Committee:
• Eva Martinez-Balibrea, Germans Trias i Pujol Research Institute, Spain
• Vinton Cheng, University of Birmingham, UK • Doreen Lau, Brunel University of London, UK
• Rebeca Sanz Pamplona, Aragon Research Health Institute, Spain
• Nuno Rodrigues dos Santos, i3S, University of Porto, Portugal
• Rosalinda Sorrentino, University of Salerno, Italy
• Catarina Rodriques, Portuguese Institute of Oncology of Porto, Portugal
• Barbara Breznik, National Institute of Biology, Slovenia
• Metka Novak, National Institute of Biology, Slovenia

Programme

Day 1

Wednesday, 20 May 2026

AGENDA

8.30-9.00	Registration for the Core Group meeting (Core Group members only) **NIB registration desk**
9.00-12.00	IMMUNO-model Core Group Meeting (Core Group members) **NIB conference room**
12.00–13.00	Lunch and NIB Lab tour (Core Group members) **NIB gallery**
Start of the official program (All attendees)	
12.00–13.00	Registration **NIB registration desk**
13.15–13.20	Welcome speech local organizers and NIB director **NIB conference room**
13.20–13.30	Welcome speech Eva Martinez-Balibrea, action chair **NIB conference room**
13.30–15.30	**TGRC session 1**: Gender Equal Opportunities and the Sex Gap in Immunology and Immunotherapy **NIB conference room** Chairs: Hanne Haslene-Hox, SINTEF, Norway & Catarina A. Rodrigues, IPO Porto, Portugal
13.30–14.00	Invited speaker: **Berna Özdemir** (Bern University Hospital, Switzerland) Talk title: Sex and gender differences in immunotherapy efficacy and toxicity- what is the evidence?
14.00–14.30	Invited speaker: **Sonja Loges** (University Medical Centre Mannheim, Germany) Talk title: Sex Differences in NSCLC
14.30–15.00	Invited speaker: **Camila Consiglio** (Lund University, Sweden) Talk title: Decoding sex differences in human immunity using systems immunology

15.00–15.30	**Roundtable discussion** **Uzma Hasan**, The Lyon Immunotherapy for Cancer Laboratory, France Gianmarco Contino, University of Birmingham, United Kingdom
15.30–16.15	Coffee break & **Industry** meetings **NIB gallery**
16.15–18.30	**TGRC Session 2:** Industry Presentations and Networking **NIB conference room** Chairs: Denis Collins, Dublin City University, Ireland and Marta Maleszewska, University of Warsaw, Poland
16.15–16.22	INITIO CELL: **Devrim Pesen Okvur**
16.25–16.32	Labena d.o.o.: **Uršula Prosenc Zmrzljak**
16.35–16.42	Omega d.o.o.: **Samy Dufour**
16.45–16.52	Axion Biosystems: **Aniello Lombardi**
16.55–17.02	RWD Life Science Co., LTD: **Fan Yu**
17.05–17.12	Abbmira Therapeutics AG: **Marc Creus**
17.15–17.22	28DIGITAL: **Sonay Goneli**
17.25–18.25	Open discussion with Industry
18.30–22.00	IMMUNO-model Core Group Meeting Dinner, **Core Group members**

Day 2

Thursday, 21 May 2026

AGENDA

Start of Scientific Program (all attendees)	
8.15–9.15	Registration **NIB registration desk**
	Scientific Session 1: Immuno-models in hematologic tumors WG4 **NIB conference room** Chair: Nuno R. dos Santos, i3S, University of Porto, Portugal
9.15–10.00	Keynote lecture **Elisa Oricchio**, EPFL, Switzerland Talk title: Use tissue explants to decode tumor evolution and response to therapies
	Scientific Session 2: In vivo cancer immunotherapy models–WG2 **NIB conference room** Chair: Doreen Lau, Brunel University of London, UK
10.00–10.45	Keynote lecture **Erik Aarntzen**, Radboud University Medical Centre, the Netherlands Talk title: Imaging CD8 T-cells in vivo: the potential of PET imaging as biomarker technology
10.45–11.25	Coffee break & Poster session WG2+WG4 **Lab tour** **NIB gallery**
	Scientific Session 3: Advances in immuno-models **NIB conference room** Chair: Eva Martinez-Balibrea, Germans Trias i Pujol Research Institute, Spain
11.25–12.10	Keynote lecture **Jerôme Galon**, INSERM, Université Sorbonne, France Talk title: The immune contexture in the era of cancer immunotherapies
12.10–13.25	Lunch & Poster session WG2+WG4 **NIB gallery**
	Scientific Session 4: Immuno-model in hematologic tumors WG4 **NIB conference room**

	Chair: Laura Belver, Josep Carreras Leukaemia Research Institute, Spain
13.25–13.55	Invited speaker: **Emanuele Azzoni**, University of Milano-Bicocca, Italy Talk title: From prenatal origins to novel therapeutic strategies targeting inflammatory pathways: leveraging pre-clinical models of Juvenile Myelomonocytic Leukemia (JMML)
13.55–14.25	Invited speaker: **Jordi Minguillón**, CIEMAT/IIS-FJD and IdiPAZ/CNIO, Madrid Talk title: Preclinical and Clinical Research on CAR T-Cell Therapy for Pediatric Leukemia
14.25–14.35	Short talk: **Adrian Bogdan Tigu**, "Iuliu Haţieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania Talk title: Synergizing Immunotherapy and Proteasome Inhibition in Mantle Cell Lymphoma
14.35–15.15	Coffee break & Poster session WG2+WG4 **NIB lab tour** **NIB gallery**
	Scientific Session 5: *In vivo* cancer immunotherapy model WG2 **NIB conference room** Chairs: Eleni Douni, Department of Biotechnology Agricultural University of Athens/Institute for Bioinnovation, B.S.R.C. "Alexander Fleming, Greece and Renata Stripecke, University Hospital Cologne, Germany
15.15–15.45	Invited speaker: **Renata Stripecke,** University Hospital Cologne, Germany Talk title: Humanized mice and engineered CAR-T cells
15.45–16.15	Invited speaker: **Gustavo Alviter-Raymundo,** University of Cambridge, UK Talk title: Humanised mouse models for pre-clinical investigation of cancer immunotherapies
16.15–16.25	Short talk: **Alfredo Pherez Farah,** University of Padova, Italy Talk title: Myeloid-t cell therapy interactions reshape the tumor microenvironment to sustain tumor control
16.25–16.55	**WG2 and WG4 showcase and discussion** **NIB conference room** Chair: Emmet Mc Cormack, Laura Belver
17.00–17.10	**GROUP PHOTO**
18.00–22.00	**NIB welcome reception:** Social dinner

Day 3

Friday, 22 May 2026

AGENDA

Scientific Program (all attendees)	
8.30–9.00	Registration **NIB registration desk**
	Scientific Session 6: *In vitro* and *ex vivo* cancer immunotherapy models WG1 **NIB conference room** Chair: Vinton Cheng, University of Birmingham, UK Hanne Haslene-Hox, SINTEF, Norway
9.00–9.45	Keynote lecture **Frederik De Smet**, KU Leuven, Belgium Talk title: From patient tissue to in vivo models: multiscale analysis of tumour-immune interactions in brain tumours
09.45–10.15	Invited speaker: **Jordane Divoux**, CLCC François Baclesse, France Talk title: The TRIPLEX study: use of patient-derived tumor organoids as an innovative tool for precision medicine in triple-negative breast cancer
10.15–10.45	Invited speaker: **Kristina Kromer,** Institute of Human Biology, Switzerland Talk title: Modelling the development of tumor-associated macrophages (TAMs) in colorectal cancer using a complex human *in vitro* system of the tumor microenvironment
10.45–10.55	Short talk: **Ferran Grau Leal**, Germans Trias i Pujol Research Institute (IGTP), Badalona, Spain Talk title: Implementation of Patient-Derived Organotypic Tumor Spheroids (PDOTS) from Primary and Metastatic Colorectal Cancer for Ex Vivo Immunotherapy Testing
10.55–11.35	Coffee break & Poster session WG1+WG3 **NIB gallery**
	Scientific Session 7: Immuno-models in solid tumors WG3 **NIB conference room** Chair: Rosalinda Sorrentino, University of Salerno, Italy and Rebeca Sanz Pamplona, Institute for Health Research Aragon (IISA), Spain

11.35–12.20	Keynote lecture **Marinka Žitnik,** Harvard University, USA Talk title: Empowering cancer research with AI
12.20–12.50	Invited speaker: **Natalia Bednarz-Knoll**, Medical University of Gdańsk, Poland Talk title: Imaging flow cytometry for decoding circulating tumor and normal cell interactions: implications for immunothrepy monitoring
12.50–13.20	Invited speaker: **József Dudás**, Innsbruck Medical University, Austria Talk title: Advances form the COST Action CA21135 "Modelling immunotherapy response and toxicity in cancer" for the translational research in ENT-clinic in Innsbruck, Austria
13.20–13.30	Short talk: **Fatih Özefe,** Izmir Institute of Technology, Turkey Talk title: Perfusion-based Melanoma-Immune Microenvironment (MIMe) Platform for Modeling Adoptive Immune Response
13.30–14.00	Lunch & Poster session WG1+WG3 **NIB lab tour** **NIB gallery**
14.00–14.30	**WG1 and WG3 showcase and discussion** ***NIB conference room*** Chair: Lukasz Skalniak, Marleen Ansems
14.30–15.30	**Interactive session:** Immuno-model showcase, achievements, closure and future **Poster awards** **NIB conference room** Chair: Eva Martinez-Balibrea, Germans Trias i Pujol Research Institute, Spain

The abstract book of the conference can be found at the following link: https://www.immuno-model.eu/wp-content/uploads/2026/05/ABSTRACT-BOOK-IMMUNO-model-2026-2.pdf
The abstract book was also published with the title "IMMUNO-model Final conference: Building Bridges in Cancer Immunotherapy – Book of Abstracts". Publication is available free of charge at: https://dirros.openscience.si/IzpisGradiva.php?id=29370

3.3. Webinars

IMMUNO-model webinar was dedicated to Patients, titled "Immunotherapy in Cancer – How It Works and Why Challenges Remain" on 23rd April 2026 at 4 pm CET. 59 Unique Participants.

The webinar provided an introduction to the immune system and immunotherapy, discussed current challenges and treatment approaches, and highlighted the importance of patient involvement in shaping future cancer research and therapies.

- The two speakers were:

- *Uzma Hassan, The Lyon Immunotherapy for Cancer Laboratory (LICL), France with a talk entitled: The immune system*
- *Gianmarco Contino, University of Birmingham, UK, with a talk entitled: Immunotherapy: treatments and cancer types*

The webinar was moderated by Silke Vogel, Patient Advocate, and Dr. Eva Martinez-Balibrea, Chair of the Action, and Prof. Leticia, co-Chair of the Action.



The webinar was recorded and can be watched at the following link: https://www.youtube.com/watch?v=8dhtEFwaeY4

4. Meetings

4.1. Core Group meetings

Core Group Meeting 1

- 7/11/2025
- Virtual
- 16 participants

Agenda

1. COST Innovator Grant (CIG): guest speakers

- 11:00 Chiara Riganti CIG PANDORA https://www.cost.eu/actions/IG17104/
- 11:30 Laura Batlle Morera CIG StemPredict https://www.cost.eu/actions/IG20140/

2. IMMUNO-model Sustainability and CIG Grant: Ideas presented by CG members

- a. Eva: IMMUNO-EDUCA: European Learning Hub on Cancer Immunotherapy and Translational Models (10 mins)

- b. Leticia: IMMUNO-CONNECT: Co-Creating Research with Patients (10mins)
- c. Maurizio: BRIDGE-IO: Building Research Integration and Data-driven Growth in ImmunoOncology Education (10 mins)
- d. Emmet: DogBiTE (10 mins)

3. IMMUNO-model Sustainability and CIG Grant: Discussion (10 mins)

- An Excel file was prepared to assess the sustainability of the collaboration and the members' availability to participate in future grant applications.

4. Grants: approval of GP4 calls (Philippe, 10 mins

5. Urgent matters and Closure

Core Group Meeting 2

- 5/12/2025
- Virtual
- 12 participants

Summary of decisions / relevant issues

1. IMMUNO-model Sustainability and CIG Grant: Ideas presented by CG members a. Maurizio, Leticia and Eva b. Doreen

  - Composition of task forces:

Taskforces	Coordinator	Members
TF1: Convert IMMUNO-model into an association / network (AISBL, etc.)	Maurizio	Denis, Maurizio, Catarina, Rui
TF2: Apply for another COST Action that is connected to IMMUNO-model (not the same).	Marta	Marta, Hanne, Philippe, Eva
TF3: Request funding for scientific projects by leveraging our network: Horizon EU, MSCA DN, etc.	Marleen	Marleen, Emanuela, Emmet, Doreen, Rosalinda
TF4: Join other existing associations.	Lukasz	Laura, Leticia, Łukasz, Gianmarco, Barbara

2. Upcoming GP4 Activities:

a. CG meeting in Brussels (22/01/2026 09:30-16:30hrs):

b. Modelling Immunotherapy in 3D (09/02/2026)

3. Ongoing Issues:

a. Patient Engagement Task Force: (Leticia)

b. Knowledge Hub Taskforce and future leadership of WG1: (Emanuela)

4. Training School in Coimbra: (Rui)

5. Other urgent business/communications

Core Group Meeting 3

- 22/01/2026
- 9.00 am-16.30 pm at COST Association, Avenue du Boulevard – Bolwerklaan 21, 1210, Brussels, Belgium
- 14 participants

Agenda
09:00-09:30 Welcome and introduction – Eva Martinez-Balibrea, IMMUNO-model Chair + safety slides

09:30-10:30 Presentation - Vanessa Gorasso, Sciensano, Belgium

CG members performed a hands-on exercise highlighting future perspectives for the CA designing a SWOT analysis of high value/low value/high effort/low effort:

Group 1	Group 2
	
Ponts raised • High value: Webinars, publications, Website, Board meetings and social media • AC and TS considered as essential • Sponsorship needed • Taskforce activities: high value but high effort	Ponts raised • High value / high effort: AC, policy & legislation, protocol database, publications, TS, WG meetings, website, stakeholder engagement, sharing materials • STSMs: high value but require funding source • CG meetings: high value, low effort
	• Newsletters: low priority • VM and ITC Grants: noted but low priority

10:30-11:00 Coffee break

11:00-11:45 Presentation - TF1: Convert IMMUNO-model into an association, non-profit organization, network, etc.

11:45-12:30 Presentation - TF2: Apply for another COST Action that is connected to IMMUNO-model (but not the same).

12:30-13:30 Lunch break

13:30-14:15 Presentation - TF3: Request funding for scientific projects by leveraging IMMUNO-model network: Horizon EU, MSCA DN, etc.

14:15-15:00 Presentation - TF4: Join other existing associations.

15:00-16:30 Core Group Meeting:

- Update on upcoming GP4 Activities: Events in Barcelona and Madrid
  - o Increase LOS for the Event in Barcelona from 2000 to 4000 as registrations above 51 participants
  - o Annual Conference in Slovenia leadership
- WG activities, meetings, publications etc
  - o Leadership WG5 – maternity leave of Barbara Breznik
- Grants
- Update from TGRCs
- Patient Engagement Task Force

Core Group Meeting 4

- 20/02/2024
- Virtual
- 14 participants

- Agenda

1. Admin updates: (Eva)

a. Top-up news
b. Annual Report GP3
c. Final Report GP4

2. Sustainability of IMMUNO-model
   a. Follow-up of action points from January's meeting: each task force
   b. Survey Voting
      - o Preferred action out of the 4 TF proposals
      - o Which TFs they wish to participate in
3. Activities
   a. Modelling Symposium Barcelona: Eva
   b. NK Cells workshop Madrid: Melanie
   c. Annual Meeting Ljubljana: Metka
   d. TGRC event at AM: TGRCs
   e. CG meeting in September: pending
4. Update on grants: Phillipe
5. WG + TGRCs Updates: all WG Leaders and TGRCs
   a. Meetings
   b. Publications
   c. Joint Proposals
6. WG5: Rosalinda
   a. Patient Taskforce videos

b. Patient Taskforce flyers
c. Video to wrap up COST Action?
d. Webinars
e. Website and social media
f. Newsletter

7. Ongoing Task Forces
a. Patient Engagement Task Force: Leticia
b. Knowledge Hub Taskforce: pending

8. Other business/communications

Core Group Meeting 5

- 17/04/2026
- Virtual
- 13 participants

Agenda

1.Admin updates: (Eva)
a. Leadership WG5, MC vote ended
b. Top-Up, re-allocation of funds and MC vote (Approved on 24/03)
c. Annual Report GP3
d. Final Report GP4

2.Sustainability of IMMUNO-model:
a.Progress of Working Groups to date (Eva): Broad agreement that the EFIS Study Group is the preferred sustainability route

3. Activities update:
a. NK Cells workshop Madrid: Melanie
b. Annual Conference Ljubljana: Metka (ask for additional 4 reimbursements)
c. TGRC event at AC: TGRCs
d. CG meeting in September: possible final in-person Core Group meeting proposed for September 2026, potentially in Barcelona.

4.Update on Grants: Philippe

5.WG + TGRCs Updates: all WG Leaders and TGRCs
a. Meetings
b. Publications: to be discussed
c. Joint Proposals

6.WG5: Rosalinda
a. Patient Taskforce flyers
b. Video to wrap up COST Action: Who will do it?: Catarina to comment
c. Webinars
d. Website and social media
e. Newsletter

7.Ongoing Task Forces
a. Patient Engagement Task Force: Leticia
b. Knowledge Hub Taskforce: pending

8.Other business/communications

Core Group Meeting 6

- 20/05/2026
- In person (NIB conference room)
- 14 participants

Agenda

1. Administration: Eva
    a. Final Report GP4
        i. excel to circulate among members for publications and joint proposals
    b. List of approved publications to be paid by IMMUNO-model
2. Sustainability of IMMUNO-model: Eva
    a. Progress of Working Groups to date
    b. Approval of EFIS-IL Study group: discussion of initiative and future plans
3. Activities update: a. CG meeting in September: pending
4. Update on Grants: Philippe
5. Ongoing Task Forces

a. Patient Engagement Task Force: Leticia

b. Knowledge Hub Taskforce: pending

6. Other business/communications

Core Group Meeting 7

- 19/06/2026
- Virtual
- 11 participants

Agenda

1. Administration: Eva
    a. Left over funds: voting on re-allocation
    b. Move July CG from 17th to 10th
    c. Progress of Publications
    d. Final Report GP4
    e. Final Progress Report: Melanie elaborated excel, WGLs to request info from their WGs
    f. COST networking event in Brussels
2. Sustainability of IMMUNO-model: Eva
    a. Progress of Working Groups to date
3. Activities update:
    a. Annual Conference Ljubljana: feedback from Metka and TGRCs and discussion all
    b. CG meeting in October: discuss Agenda
4. Update on Grants: Philippe
    a. Two more applications
5. WG + TGRCs Updates: all WG Leaders and TGRCs
    a. Meetings b. Joint Proposals
6. WG5: Rosalinda
    a. Video to wrap up COST Action or booklet
    b. Webinars: are there anymore?

c. Website and social media (also when CA ends)
d. Newsletter – 1 final
e. Repository
7. Ongoing Task Forces
a. Patient Engagement Task Force: Leticia
b. Knowledge Hub Taskforce: pending
8. Other business/communications
a. Proposal to do a booklet to summarise the 4 years of the CA

Core Group Meeting 8

- 10/07/2026
- Virtual
- 12 participants

Agenda

1. Administration: Eva
a. CG meeting in October: discuss and finalise Agenda
b. MC meeting: moved from 02/10/2026 to 16/10/2026
c. Update on Final Progress Report: update from WGLs on excel
d. Progress of Publications
2. Sustainability of IMMUNO-model: Eva
a. Progress of Working Groups to date
i. EFIS: leadership/structure definition. To be presented in October.
3. Update on Grants: Philippe
a. Feedback on last minute applications
4. WG5: Rosalinda
a. Discussion of Booklet content
i. Key achievements
ii. Numbers (grants, events, members, ITC, female/male etc)
iii. Photos & quotes by Chair/Vice Chair, CG, MC, WG Leaders, TGRCs. GAW, and members
iv. Dissemination outputs
b. Update on Annual Report GP4: template
c. Webinars: Catarina/Leticia to confirm
d. Website and social media: to be updated with final reports and events. How to manage it after CA ends.
e. Newsletter – 1 final in October f. Repository update
5. Ongoing Task Forces
a. Patient Engagement Task Force: Leticia
6. Other business/communications

Core Group Meeting 9

- 18/09/2026
- Virtual
- 12 participants

Agenda

1. Administration: Eva
    a) CG meeting in October: finalise Agenda and logistics
    b) MC meeting 28/10/2026: discuss Agenda
    c) Update on Booklet
    d) Update on Publications
    e) Update on Final Progress Report: WGLs > excel
2. Sustainability of IMMUNO-model: Progress of Working Groups to date
3. Update on Grants: Philippe
4. WG5: Rosalinda
    a) Update on Annual Report GP4
    b) Webinars: Catarina/Leticia to confirm
    c) Website and social media: to be updated with final reports and events
    d) Newsletter – final in October
    e) Repository update
5. Ongoing Task Forces
    a) Patient Engagement Task Force: Leticia
6. Other business/communications

Core Group Meeting 10

- 8-9/10/2026
- In person: IGTP, Badalona, Spain
- 13 participants in person and 3 participants online

AGENDA:

DAY 1: 08/10/2026

10:15-10:30	**Registration**
10:30-12:30	**Collaboration and networking meetings**
12:30-13:30	**Lunch**
13:30-13.35	**Welcome from Chair**
13:35-15.00	**Information gathering for future collaborations** (5 minutes presentation + 5 minutes discussion)

- Eva Martinez-Balibrea
- Leticia Oliveira

- Emmet McCormack
- Marleen Ansems
- Maurizio Callari
- Laura Belver
- Rosalinda Sorrentino
- Philippe Bertrand

15:00-15:30 **Coffee break**

15:30-17:00 **Information gathering for future collaborations** (5 minutes presentation + 5 minutes discussion)

- Denis Collins
- Hanne Haslene-Hox
- Marta Maleszewska
- Catarina Rodrigues
- Gianmarco Contino
- Łukasz Skalniak (online)
- Doreen Lau (online)
- Barbara Breznik (online)

17:00-17:30 **Discussion and closing remarks**

19:30 **Dinner at Mussol Arenas**

DAY 2: 09/10/2026

08:15-08:30	**Registration (sign attendance sheet)**
08:30-09:40	**One-to-one Meetings**
09:40-09:45	**Welcome from Chair**
09:45-10:20	**Presentation of New COST Proposal + Discussion (Presenters TBA)**
10:20-10:45	**Discussion of opinion/perspective article re learnings (Denis to lead)**
10:45-11:15	**Coffee break / Group Photo / Networking**
11:15-12:15	**EFIS study group meeting (Lukasz and Caterina to lead)** **Items on Agenda: organisational structure, article, meeting in Florence, leadership responsibilities, future meetings and work, logo**
12:15-12:45	**Website and Social media plan/ upkeep (Rosalinda to lead)**
12:45-13:15	**Future of Patient Engagement Taskforce (Leticia to lead)**
13.15-13.30	**Closing remarks and farewell**

4.2. MC meetings

Management Committee Meeting 1

- 28/10/2026
- Virtual
- 36 participants

Agenda

1. Welcome of participants and adoption of agenda: **Eva Martinez-Balibrea, Chair** (5 minutes)
2. Information to the MC: **Eva Martinez-Balibrea, Chair** (25 minutes)
    a) Core Croup: report from the Core Group, including delegated decisions
    b) Action Membership: New Specific Organisations and COST Members represented in the MC
    c) Action Participation: WG membership and applications, New MC Members/Observers and provisional substitution
    d) Action management: structure, leadership positions and other supporting roles
    e) Budget status: summary from the Grant Holder: **Melanie Giorgi, Grant Holder Manager** (10 minutes)
    f) Update from the COST Association: **Radenka Krsmanovic Whiffen, Action Science Officer** (5 minutes)
3. Follow up and discussion on the
    a) Implementation of the COST Excellence and Inclusiveness Policy: **Dennis Collins, TGRC2 Leader** (5 minutes)
    b) Grant Awarding by the Action: **Eva Martinez-Balibrea, Chair,** on behalf of **Philippe Bertrand, Grant Awarding Coordinator** (5 minutes)
    c) Progress of each working group including MoU Objectives, WG tasks, deliverables, and Goals for the current GP and conclusions of the 4 GPs: (15 minutes each, 105 minutes in total)
        i. **Lukasz Skalniak, WG 1 Leader & Marleen Ansems, WG 3 Leader**
        ii. **Emanuela Senjor, Knowledge Hub**
        iii. **Laura Belver, WG 4 Leader**
        iv. **Denis Collins, TGRCs**
        v. **Emmet McCormack, WG 2 Leader**
        vi. **Leticia Oliveira-Ferrer, Vice-Chair, Patient Engagement Task Force**
    d) Progress of WG 5 and Science Communication Plan: **Rosalinda Sorrentino, WG5 Leader** (15 minutes)
4. Planning
    a) Summary of achievements of IMMUNO-model and future of IMMUNO-model: **Eva Martinez-Balibrea, Chair** (10 minutes)
5. Monitoring and Reporting to the COST Association: **Eva Martinez-Balibrea, Chair** (5 minutes)
6. AOB: **Q&A** (10 minutes)
7. Closing

4.3. WG meetings

4.3.1 WG1 meetings

Joint Meetings WG1 and WG3

WG1/3 meeting 14: May 22nd at 14.00 (WG1 and WG3 showcase and discussion during the Annual Congress in Ljubljana)

During the Annual Conference in Ljubljana, WG1 and WG3 organized a joint Showcase and Discussion Session to highlight ongoing research activities and collaborative achievements across the network. The discussions reinforced existing connections between researchers from different disciplines and generated ideas for future collaborative initiatives beyond the lifetime of the Action.

WG1/3 meeting 15: an online Matchmaking Event on Tuesday, July 7th, 14:00–15:30 (CET)

WG3 co-leader, Marleen Ansems, organized an online Matchmaking Event that brought together 76 participants from across the IMMUNO-model network to explore future collaborative opportunities. The detailed program of the event included short, c.a. 10 minutes presentation of the following speakers:

Maurizio Callari (maurizio.callari@fondazionemichelangelo.org)
Title: Data, Computational Approaches and Infrastructures for Immuno-Oncology Research
Target call: Open

Rebeca Sanz Pamplona (rsanz@iisaragon.es)
Title: Tumor – Immune Crosstalk and metastatic homing in solid tumors
Target call: Open

Theodora Katsila (thkatsila@eie.gr)
Title: A Translational Toolbox Ready to Use
Target call: Open

Natalia Bednarz-Knoll (nbk@gumed.edu.pl)
Title: Decoding Cancer from Liquid Biopsy Using Molecular Imaging, Omics and AI
Target call: Open

Marta Maleszewska-Bobińska (marta.maleszewska@uw.edu.pl)
Title: Isoform Resolution and Epigenomic Profiling to Target Hard-to-Treat Cancers and Predict Immune Recurrence (ISO-EPI-TARGET)
Target call: HORIZON-MISS-2027-02-CANCER-01: Leveraging Functional Genomics to Reveal Novel Targets for Cancer Treatment

Eduardo Domínguez Medina (edomedina7@gmail.com)
Title: New Assay Methodology-Driven Discovery Platform to Find and Validate Cancer Immunomodulators
Target calls:
TRANSCAN-4 Joint Transnational Call (translational, therapy-resistance focus)

HORIZON-MISS 2026/2027 Cancer calls (resistance, virtual twin validation, and supplying hits to nanomedicine/delivery partners)

Jesus Pacheco Torres (jpacheco@iib.uam.es)
Title: In Vivo Imaging-Based Models to Monitor Tumour Microenvironment and Immunotherapy Response
Target calls:
HORIZON-MISS-2026-02-CANCER-01: Virtual Human Twin (VHT) Models for Cancer Research
HORIZON-MISS-2026-02-CANCER-03

Helena Vasconcelos (hvasconcelos@ipatimup.pt)
Title: Integrated strategies to identify therapeutic targets and next generation therapies in cancer (This would combine liquid biopsies from patients - analysis of CTCs, EVs, cfDNA; multiomics; AI; CRISPR; organoids; PDX or other animal models)
Target call: ERC Synergy or/and Marie Curie Doctoral Networks

Participants presented project concepts addressing diverse topics, including computational immuno-oncology, tumour-immune interactions, liquid biopsy technologies, AI-driven approaches, advanced imaging, and novel platforms for therapeutic discovery, while identifying suitable European funding schemes. The event successfully facilitated networking between complementary research groups and laid the groundwork for new grant applications and long-term collaborations extending beyond the COST Action.

4.3.2 WG2 meetings
During GP4, WG2 held seven identified WG2/review-writing meetings, together with a related Section 2 subgroup meeting. The meetings were primarily devoted to coordination of the five writing subgroups, review-manuscript development and planning of the commentary.

12 November 2025 – WG2 review-writing group meeting. Contributors were asked to prepare approximately 1,000 words per section, include PubMed identifiers and key references, identify proposed figures/tables and legends, and acknowledge contributors. Section leads were asked to upload drafts to the shared folder or circulate them by email. Doreen Lau and Emmet Mc Cormack were to draft the introduction and integrate sections, with an initial full-draft target before Christmas 2025.

18 November 2025 – Section 2 subgroup meeting. A separate Section 2 meeting was scheduled by Andreia Peixoto to discuss the progress of the subgroups

28 November 2025 – WG2 writing-leads meeting. The writing leads met to coordinate the manuscript work.

14 January 2026 – WG2 leads/section-leads meeting. The agenda covered brainstorming for a Nature Immunology commentary and review of the latest review-paper draft. Participants were asked to prepare section bullet points and consider FAIR principles and interoperability. Correspondence documents ongoing work on the Section 2 table and an intention to circulate a consolidated first draft.

16 April 2026 – WG2 leads/section-leads meeting. The meeting took place during a period of active review revision. Related correspondence documents updated manuscript drafts, Table 1 and graphical-abstract development.

1 June 2026 – WG2 leads/section-leads meeting. An online meeting on the papers, rescheduled from 28 May to accommodate participation. The meeting was alos used ot coordinate the materials to be presented at the final IMMUNO-model conference and WG2 showcase.

22 June 2026 – WG2 leads/section-leads meeting. A further writing-leads coordination meeting was scheduled to discuss submission options and review the latest manuscript drafts.

29 June 2026 – WG2 meeting. A 30-minute WG2 meeting was scheduled. Follow-up correspondence circulated the latest review manuscript on 30 June and a journal pre-submission inquiry on 2 July.

July – September. One on one meetings in July and September 2026 discussed additional editorial exchanges concerning the manuscripts. Collectively, these meetings were used to make minor modifications to drafts a text for resubmissions.

4.3.3 WG4 meetings

WG4 held a joint meeting with WG2 during the Annual Meeting in Ljubljana. This session presented an overview of WG4's achievements, alongside ongoing activities and goals in light of the project's upcoming conclusion. A live survey asked members how they would like to proceed once IMMUNO-model ends, with members clearly favouring an application for a new COST Action on immunotherapy and tumour immunity. There was also clear interest in participating in the new IMMUNO-model-promoted EFIS study group, with members suggesting it be organized as a standalone event rather than embedded as a satellite within a larger one.

In addition to this meeting, satellite WG4 subgroup meetings were held on specific topics, including implementation of the ACHILLES Doctoral Network and the establishment of collaborative groups for grant applications and scientific collaboration.

4.3.4 WG5 meetings

The dissemination and communication activities planned for GP4 have build on and further strengthened the initiatives successfully implemented during GP3, with the aim of increasing the visibility, accessibility, and impact of the IMMUNO-model network and its activities. Particular emphasis was placed on ensuring effective communication with both the scientific community and non-specialist audiences, including patients and other relevant stakeholders. In close collaboration with the different Working Groups (WGs), these activities contributed to establishing IMMUNO-model as one of the reference network in the field of immunotherapy research, fostering scientific collaboration, knowledge exchange, and wider engagement.

The planned activities included the continuous development of the IMMUNO-model website, providing updated information, scientific resources, and user-friendly tools to facilitate interaction among members and support the identification of potential collaborators.

Communication through social media and newsletters ensured regular dissemination of project achievements, scientific outputs, events, and opportunities for collaboration. Podcasts and webinars provided accessible formats for sharing scientific knowledge and discussing relevant topics with researchers, healthcare professionals, patients, and the wider public. Particular attention was devoted to patient-oriented communication, through the development of flyers in different languages and a dedicated webinar designed to make information on immunotherapy and related research more accessible and understandable.

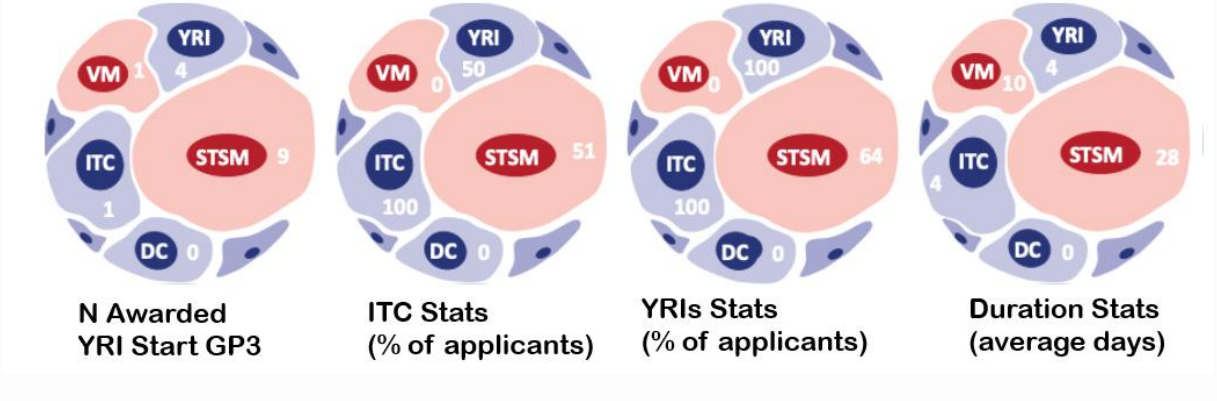
In addition, a public repository and updated members' databases supported the sharing of resources, expertise, and networking opportunities within and beyond the consortium. Dedicated meetings and dissemination events further strengthened interaction among researchers and stakeholders, promoted the visibility of IMMUNO-model activities, and facilitated the transfer of knowledge from research to the broader community. Overall, the communication and dissemination strategy supported the creation of a dynamic, inclusive, and sustainable network, capable of promoting collaboration and maximizing the scientific and societal impact of IMMUNO-model.

In particular, meetings aimed at disseminating IMMUNO-model activities:

1. Website
2. Social media
3. Podcasts
4. Patients' flyers in different languages
5. Patients' webinar
6. Public repository
7. Members databases
8. Newsletters

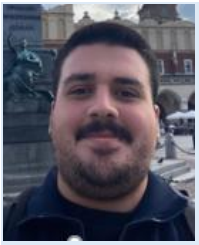
5. Mobility Grants

During Grant Period 4, 15 grants have been awarded for a total budget of €32,508. In the figure below are some statistics by grant type, ITC member applications and young researcher applications (%) and the average duration by grant type, in days. No DC grants were requested (data = 0).



List of grantees and projects by grant type

STSM grantees



Harun Bozaslan

Training in T Cell Co-Culture Models to Investigate PIN1–PD-L1-Mediated Tumor–Immune Interactions in Triple-Negative Breast Cancer

Main achievements: investigate the interactions between cancer cells and primary and secondary T cells; acquisition of knowledge about interactions between tumor–immune cells under different experimental conditions by comparing breast cancer cell models with distinct characteristics against their wild-type (WT) counterparts.

€3200

2 months

17/09/2026

22/10/2026



Adrián Segura Ortiz

Context-aware inference of cell-group-specific gene regulatory networks in CLL

Main achievements : development of SPATHI, a tool that uses similarities between cells to help researchers explore biological patterns. Tests on simulated data have helped to assess its strengths and practical limits, and an initial exploration of the centre's chronic lymphocytic leukaemia data produced interpretable outputs.

€2920

1 month

26/08/2026

24/09/2026



Christine Supina Pavić

Regulation of NK cell cytotoxicity by miRNA modulation of cathepsins in pancreatic ductal adenocarcinoma (PDAC)

Main achievements : total RNA was isolated from tissue samples (tumour and normal, 12 patients). The expression of six candidate miRNAs was measured (qPCR). miR-26b-5p was selected for further investigation. CTSV was upregulated in tumour tissue compared with normal tissue. The collaboration is continuing beyond the funded mobility period.

€2000

1 month

01/09/2026
30/09/2026



Mathilde Persch

Protocol Exchange and Harmonisation of Multiparametric Flow Cytometry Panels for Ovarian Cancer Immune Monitoring

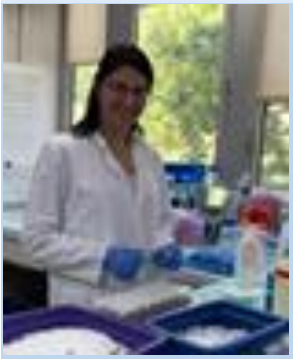
Main achievements :

The STSM successfully achieved its main objective of comparing and harmonizing the multiparametric flow cytometry panels used by Partner 1 (UKE Hamburg) and Partner 3 (LICL Lyon) for immune monitoring of ovarian cancer patient samples within the ioAVATAR project

€1200

1 week

17/08/2026
21/08/2026

 Eva Martinez-Balibrea	**Implementation of air–liquid interface tumour cultures to study tumour–immune interactions and immunotherapy response** **Main achievements** : The stay provided comprehensive training on the establishment, maintenance and characterization of patient-derived ALI cultures, significantly expanding my expertise in immunocompetent 3D tumour models and their application to translational cancer research. The knowledge acquired during the STSM will be directly transferred to my home institution	€4000	2 weeks 13/07/2026 24/07/2026
 Norbert Nass	**Training in techniques for generating patient-derived immuno-oncology models from squamous cell carcinomas** **Main achievements :** I obtained insight in the construction of 3D models for SCC of head and neck as well as vulva and cervix as well the isolation of tumor cells from patient tissue. These methods will be established in the centre of translational research of the Brandenburg Medical School (MHB) and will allow us to establish advanced research in this field in close collaboration with the Norwegian colleagues.	€1400	2 weeks 09/05/2026 24/05/2026
 Simona Katrin Galun	**Spatial transcriptomics reveals glioblastoma microenvironment and tumor-immune interactions** **Main achievements :** We optimize the ISS protocol for developed 3D glioblastoma models recapitulating the TME. The optimization enabled the acquisition of high-quality datasets of 3D models for spatial transcriptomic analysis with the aim of model validation. An important outcome of the STSM is also the establishment of a strong collaboration between the Home and Hosting institutions.	€3500	2 months 12/04/2026 14/05/2026
 Simona Kranjc Brezar	**High-dimensional immune profiling of changes in immune cell populations in mouse tumors after electrochemotherapy** **Main achievements :** We established and optimized advanced spectral flow cytometry workflows for high-dimensional immune profiling to facilitate the implementation of these methods at the Institute of Oncology Ljubljana and support comprehensive characterization of immune responses in future preclinical and translational studies. Furthermore, training in intravital microscopy expanded methodological capabilities and introduced new approaches for studying dynamic interactions between tumor cells and immune populations in vivo.	€4000	2 months 01/04/2026 31/05/2026



Ana Margarida Carvalho

Engineered immune-competent models of metabolic dysfunction-associated steatotic liver disease and hepatocellular carcinoma using patient-derived hepatocyte organoids and biomaterials

Main achievements : A collaboration was established between the Home Institution, i3S (Portugal), and the Host Institution, UMCG (the Netherlands), focused on sharing knowledge on the culture of patient-derived human liver organoids and their use for creating immune-competent models of metabolic dysfunction-associated liver disease and hepatocellular carcinoma.

€3820

3 months

16/02/2026

17/04/2026

ITC grantees



Hayarpi Javrushyan

Oral presentation : Hypoxia-Linked Alterations in Arginine Metabolism and Oxidative Stress in the Bone Marrow during Breast Cancer Progression and Treatment

Conference : The Annual Pathology Conference of the `Victor Babeș` Institute. 12/11/2025 to 14/11/2025

Outcomes : The conference facilitated networking, provided insight into translational pathways and opportunities for future partnerships. The indexing of abstracts in BMC Proceedings (Springer-Nature) further enhance the visibility and credibility of the presented work. Overall, my participation in the conference significantly contributed to strengthening the international visibility of the Research Institute of Biology of Yerevan State University and aligning my research with ongoing European scientific efforts.

€502

3 days

12/11/2025

14/11/2025



Catarina Rodrigues

Oral presentation : Proteomic and Immunophenotypic Profiling of Extracellular Vesicles Reveals Systemic Immune Modulation During Immunotherapy

Conference : yEFIS 3rd Symposium. 29/06/2026 to 01/07/2026

Outcomes : The symposium represented an important opportunity to disseminate my research at the European level, receive expert feedback, establish new scientific connections and reinforce the impact and visibility of the research developed during my PhD, while contributing to the broader dissemination of translational immunology research of the IMMUNO-model COST Action.

€600

3 days

29/06/2026
01/07/2026



Pia Zizek

Poster presentation : Exploring Immune Microenvironment in Cancer Explants

Conference : The 3R Länd Conference. 23/03/2026 to 27/03/2026

Outcomes : The conference gave me insights into the newest alternative models for 3R biomedical research and personalized medicine and enabled me to present preliminary data on established immunocompetent NSCLC and brain models, our organ-on-chip stetup and results of treatments. It enabled me to meet and network with NAM experts and identify collaborators for joint grants. These

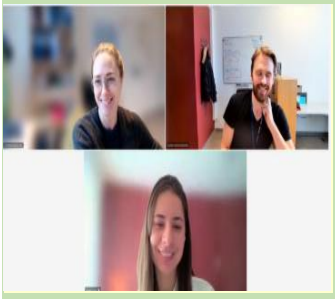
€1200

4 days

23/03/2026
27/03/2026

	interactions filled me with fresh ideas and motivation for my research work.		
 Alfredo Pherez Farah	**Oral presentation.** Myeloid – T cell therapy interactions reshape the TME to sustain tumor control **Conference** : 12th Immunotherapy of Cancer Conference. 11/03/2026 to 14/03/2026. **Outcomes** : Attending and presenting at ITOC12 was an exceptionally productive experience. It not only increased the visibility of my research within the international cancer immunotherapy community but also facilitated the establishment of new professional relationships with both academic and industry partners. These connections are expected to lead to future collaborations and continue to shape the trajectory of my research and career development.	€1000	4 days 11/03/2026 to 14/03/2026
 Maria Edwards	**Poster presentation :** Blocking Dopamine D2 Receptors Induces Anti-Cancer and Immune Stimulatory Effects in *Ex Vivo* Patient-Derived Tumour Slice Models of Ovarian Cancer **Conference** : ESMO Immuno-oncology. 10/12/2025 to 12/12/2025 **Outcomes** : The congress advanced my academic growth and scientific network greatly with the latest findings in immunotherapy approaches, such as CTLA-4/PD-1 blockades, novel bispecific and tri-specific modalities, CAR-T therapy and cancer vaccines. People from industry were very interested in my work, particularly the use of ex vivo tumour slices for drug discovery, and through these interactions I made new contacts	€1000	3days 10/12/2025 12/12/2025

VMs

 Hanne Haslene-Hox	**Refining scripts and workflows for high-throughput automated robotic screening for immunotherapies** The Virtual Mobility activity successfully facilitated an in-depth technical exchange between Dublin City University (DCU) and SINTEF focused on improving the performance and robustness of an automated high-throughput screening platform for immunotherapy-related cellular phenotyping applications. The work addressed protocol optimization, reduction of experimental variability, and transfer of automation expertise. **Outcome**. The Virtual Mobility activity contributed directly to the objectives of the IMMUNO-model COST Action by promoting knowledge exchange, protocol harmonization, and transfer of technical expertise between participating institutions. The collaboration connected researchers and automation specialists from DCU and SINTEF working on advanced automated platforms for cellular phenotyping and immunotherapy research.	€1500	3days 20/10/2026 30/10/2026

6. Dissemination and Communication Activities

6.1. Webpage and logo

The IMMUNO-model webpage and logo was established- https://www.immuno-model.eu/ during GP2 and further ameliorated during GP3. During GP4, the webpage was further implemented in contents, increasing the visibility, accessibility, and impact of the IMMUNO-model network and its activities.

Thanks to the continued commitment and availability of WG5, the IMMUNO-model website will remain active for an additional two years, ensuring the long-term visibility and accessibility of the network and its activities. During this period, the website will progressively integrate and make accessible all the information and resources currently available through the public repository, including members' expertise, research activities, and networking opportunities. This will provide a centralized and user-friendly platform through which IMMUNO-model members will be able to identify and connect with potential collaborators independently, directly, and easily, facilitating scientific interaction and strengthening networking within the community. Together with dedicated dissemination meetings and events, **this sustainable communication infrastructure will** support the continued exchange of knowledge and expertise, enhance the visibility of IMMUNO-model, and contribute to **consolidating the network as a dynamic, accessible, and long-term reference community in the field of immunotherapy research**.

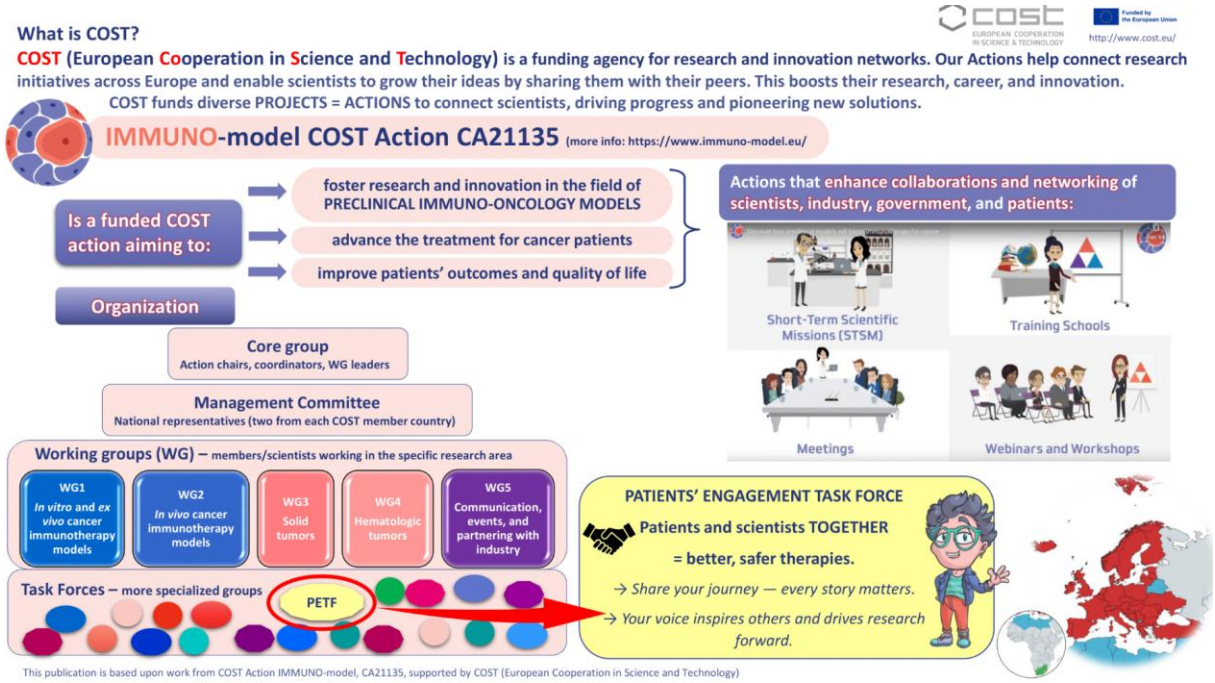
6.2. Social media platforms

Social media platforms have been established and are updated by WG5:

- X: immunomodel (@immunomodel) / X (twitter.com) (162 followers)
- LinkedIn: www.linkedin.com/company/cost-action-ca21135-immuno-model/ (1868 followers)
- YouTube channel: https://www.youtube.com/@IMMUNOModelCOSTAction (111 subscribers)
- Instagram: https://www.instagram.com/immunomodel/ (218 followers)

6.3. Promotional materials

- Website section for patients: https://www.immuno-model.eu/patient-information/
- Videos for patients:
    - Video Immunomodel_Patients_01: https://www.youtube.com/watch?v=joPm3IKbZZk&t=20s (199 views)
    - Video Immunomodel_Patients_02: https://www.youtube.com/watch?v=mHaBQDZ4kho&t=13s (49 views)
- Graphic for patients:



- Flyers for patients: https://www.immuno-model.eu/patient-information/

- Videos of webinars on YouTube channel
https://www.youtube.com/watch?v=8dhtEFwaeY4&t=4s
111 subscribers

- Newsletters: https://www.immuno-model.eu/category/newsletter/

7. Target Group Recruitment Committees (TGRCs) activities

The TGRCs aim to support and encourage the involvement of young researchers, women, and investigators from Inclusive Target Countries (ITCs) in the IMMUNO-model Action. Their role is to ensure fair representation and equal opportunities for all Target Groups across Action activities, as well as to communicate the IMMUNO-model COST Action's initiatives, strategic goals, outreach efforts, and equality, diversity, and inclusion measures.

The three TGRC groups are constituted as follows:

- **TGRC1 (Preclinical Research):** Gianmarco Contino (Leader), Uzma Hassan (Co-Leader), and Yari Ciribilli.
- **TGRC2 (Clinical Research):** Denis Collins (Leader) and Catarina Rodrigues (Co-Leader).
- **TGRC3 (Industry and SMEs):** Hanne Haslene-Hox (Leader) and Marta Maleszewska-Bobińska (Co-Leader).

Annual conference

Members of the TGRC were represented in the scientific committee (Catarina Rodrigues (TGRC2) for the annual conference in Ljubljana, 20th-22th May 2026, and contributed to the

balanced representation and inclusion of gender, ITCs, clinicians and industry in the conference program.

Monitoring of program and participation in the annual conference

The Annual Conference brought together 112 participants, with 101 attending in person and 11 joining online. Participants represented 24 countries, reflecting the broad international reach of the Action. Participation from Inclusiveness Target Countries (ITCs) was particularly strong, accounting for 53% of attendees, while 35% were Young Researchers and Innovators (YRIs). Women represented 60% of participants, and 62% of attendees were members of CA21135.

The strong participation of ITC members and YRIs was also reflected in the scientific programme, where they actively contributed as invited speakers, short-talk presenters and session chairs. This ensured that their involvement went beyond attendance, with both groups taking an active role in the scientific discussions and exchange throughout the conference.

Symposium on Sex and Gender differences

The TGRC organized a focused Symposium on sex and gender in immunotherapy integrated in the first day of the conference (see Section 3.2 for details). The symposium highlighted the importance of integrating sex and gender perspectives into immunology research, cancer immunotherapy, and the development of advanced preclinical models.

Industry session

The Industry Engagement Session organised by the TGRC Committee at the Annual IMMUNO-model COST Action Conference in Ljubljana, Slovenia, provided a dedicated platform for interaction between conference participants and representatives from innovative biotechnology, life science, and analytical companies. In the preparation of the annual conference we utilized our IMMUNO-model SME tracker and earlier member surveys on industry engagement in the COST Action. The TGRC efforts were led by Denis Collins, and included the initiation and follow up with extensive dialogue with companies to secure participation on conference.

Designed to strengthen knowledge/links/collaboration between academia and industry, the session showcased a diverse range of organizations offering products, services, and technological solutions relevant to immunology, disease modelling, translational research, and drug development.

To maximise the value of the event, participants received information about the participating companies approximately one week before the conference. This advance circulation enabled attendees to familiarise themselves with the companies' expertise, identify potential areas of interest, and proactively arrange one-to-one meetings with industry representatives. The approach facilitated targeted discussions around potential collaborations, research partnerships, technology adoption, and procurement opportunities.

The session, chaired by Denis Collins (Dublin City University, Ireland) and Marta Maleszewska (University of Warsaw, Poland), featured concise 7-minute presentations from six companies: INITIO CELL, Labena d.o.o., Omega, Axion Biosystems, RWD Life Science Co., LTD, and Abbmira Therapeutics AG. Each company delivered a brief overview of its technologies, capabilities, and services, providing participants with a broad perspective on available

commercial solutions, potential collaborative opportunities and emerging innovations relevant to the IMMUNO-model research community.

Following the presentations, participants engaged in a dedicated networking period with in one-on-one extended discussions with the industry speakers, allowing for deeper exploration of topics of interest and exploration of future collaborative projects.

Overall, the Industry Engagement Session successfully promoted meaningful dialogue between academic researchers and industry partners, supporting the IMMUNO-model COST Action's objective of fostering multidisciplinary collaboration and accelerating the translation of innovative research into practical applications.

Coordination of activities and dissemination with yEFIS

The Young European Federation of Immunological Societies Network (yEFIS) was identified as an important platform for reaching potential members, collaborators and, in particular, early-career researchers. By bringing together young immunologists from different scientific backgrounds across Europe, yEFIS provides a broad and relevant community for engagement with IMMUNO-model.

Following the preparation of tailored communication materials, dissemination through yEFIS started in October 2024 and continued throughout 2025 and 2026. Since then, several interactions have taken place between IMMUNO-model and yEFIS, with regular sharing of Action activities, events and news through yEFIS communication channels.

yEFIS has supported the dissemination of IMMUNO-model webinars, meetings and other relevant activities through its monthly newsletter and social media channels, helping to extend the reach of the Action beyond its existing network. Information on IMMUNO-model events and opportunities has also been shared directly with the yEFIS community, creating further opportunities to attract young researchers and encourage their participation in the Action.

The continued interaction with yEFIS has therefore developed into a useful dissemination and networking link, strengthening connections with early-career immunologists across Europe and increasing the visibility of IMMUNO-model within the wider immunology community. This collaboration contributes directly to Objective 2 (CB-O2) of the MoU and, through the close links between yEFIS and EFIS, also supports progress towards Objective 3 (CB-O3).

TGRCs Meetings:

Alongside engagement in the monthly core group meetings and email communications, the TGRCs held 3 meetings in 2025 (June, October and December) and 2 meetings in 2026 (March) to progress TGRC strategy and organise the TGRC Symposium at the annual conference.

The TGRC have presented updates in the Core Group and Management committee meetings. Denis Collins, Hanne Haslene-Hox, Catarina Rodrigues, Marta Maleszewska-Bobińska, Gianmarco Contino delivered input for the workshop on “The future of Immunomodel” in Brussels in January, and preparatory meetings for this workshop (December 2025). Presentations are included in the IMMUNO-model CG and MC meeting minutes.

Outreach for sustainable continuation of network beyond COST Action period

An important focus during this period was to identify ways to sustain the IMMUNO-model network and its collaborative activities beyond the lifetime of the COST Action.

During the 8th CG meeting, held on 10 July 2026, the IMMUNO-model WG Leaders, together with the Chair and Co-Chair of the CA, agreed to submit the following synopsis to the EFIS Coordinator through Dr. Lukasz Skalniak, and Catarina Rodrigues, WG1/3 Co-Leader and TGRC2 co-leader, respectively. The aim was to explore opportunities to continue IMMUNO-model's members collaboration beyond the duration of the Action itself. During the Core Group meeting, it was strongly proposed a new **EFIS Study Group.** Discussions with EFIS focused on establishing a dedicated group that could bring together researchers working on human-relevant models in immuno-oncology and provide continuity to the scientific community created through IMMUNO-model. Work included defining the scope and main objectives of the Study Group, preparing the proposed concept and considering how the group could operate within the EFIS framework. The proposal was submitted on 16 April 2026, and approved by the EFIS Coordinator on 8 May 2026. This Study Group, Human-Relevant Immuno-Oncology Models (HARMONY), will be led by Catarina Rodrigues and Lukasz Skalniak.

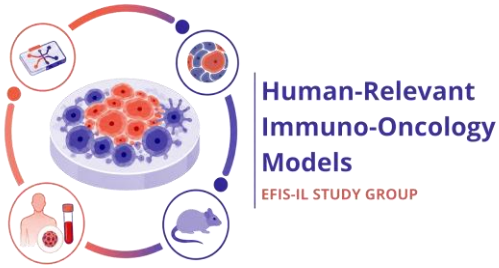
A short version of the proposal can be found here:

https://www.efis.org/files/content_images/EFIS-IL-SG_HRIOM_Synopsis.pdf

An initial core group of proponents is in place, bringing together researchers from six European countries and from different career stages and professional backgrounds. All core proponents are members of EFIS-affiliated national immunology societies. The group includes early-career researchers as well as established investigators and clinicians, and builds on collaborations already developed within IMMUNO-model. A wider group of interested participants from additional European countries has also been identified, providing a strong starting point for the future expansion of the Study Group.

HARMONY is intended to provide a longer-term platform for scientific exchange and networking, helping members remain connected, share expertise and identify opportunities for new collaborations and joint activities. Its integration within EFIS will also provide opportunities to reach a wider European immunology community and attract new researchers to the field.

The logo for the EFIS group is as follows



Mapping of network needs, other relevant networks and potential continuation of the COST-Action

For the Core Group meeting on the 22nd January 2026 in Brussel, the TGRC performed an exploration of the research and industry landscape related to immune oncology, identifying central stakeholders and actors across academia and commercial spaces, along with noteworthy actors outside of Europe. Organoids, and in particular patient-derived organoids, were identified as a key technology from IMMUNO-model that warrant further coordination efforts, with a significant gap in Europe.

A landscape analysis was presented, containing overview of

- Commercial actors
- Public service providers
- Clinical and academic research groups and institutions
- Societies and other networks with related activities and focus areas

This formed the basis for continued work towards building a sustainable and lasting network of immunomodel researchers in Europe throughout GP4.

8. Summary and future direction

Over its four-year duration, the COST Action CA21135 IMMUNO-model has successfully established a multidisciplinary European network dedicated to advancing preclinical cancer immunotherapy research through the development, harmonisation and application of human-relevant experimental models. By bringing together researchers, clinicians, industry representatives, patient advocates and early-career investigators from across Europe, the Action has created a collaborative environment that has supported scientific excellence, methodological exchange, networking, training and inclusiveness.

Throughout its lifetime, IMMUNO-model contributed to overcoming the fragmentation that has traditionally characterised the field of immuno-oncology models. Through its Working Groups, Task Forces, mobility grants, workshops, conferences, webinars and dissemination activities, the Action fostered the exchange of expertise across disciplines and sectors, promoted the harmonisation of methodologies, and facilitated the development of innovative collaborative research initiatives. These activities resulted in new scientific partnerships, joint publications, grant applications, training opportunities and long-lasting collaborations that extend beyond the lifetime of the COST Action.

A central focus during Grant Period 4 was the sustainability of the network and the identification of mechanisms to ensure that the collaborations, expertise and momentum generated by IMMUNO-model would continue after the end of COST funding. Multiple sustainability pathways were explored by dedicated task forces, including the development of collaborative funding initiatives, integration into existing scientific societies and networks, and the preparation of future European funding applications. A clear consensus emerged across the network that maintaining an active scientific community dedicated to human-relevant immuno-oncology models should remain a priority.

The most significant outcome of these sustainability efforts has been the establishment of the EFIS Study Group on Human-Relevant Immuno-Oncology Models (HARMONY), coordinated by Catarina Rodrigues and Łukasz Skalniak. Developed directly from the collaborations and scientific vision created within IMMUNO-model, HARMONY was approved by the European Federation of Immunological Societies (EFIS) in May 2026 and represents a tangible and sustainable legacy of the Action. The Study Group provides a formal framework through which IMMUNO-model members can continue collaborating, sharing expertise, developing joint initiatives, organising scientific activities and pursuing funding opportunities beyond the conclusion of the COST Action.

Importantly, HARMONY should be viewed as the natural continuation of IMMUNO-model. Building upon the network, expertise, collaborative culture and scientific priorities established during the Action, the Study Group will continue to advance the development, validation and harmonisation of human-relevant immuno-oncology models. Through its integration within EFIS, HARMONY will also enable the former IMMUNO-model community to engage with a broader European immunology audience, attract new members and strengthen its long-term impact within the immunology and cancer research landscape.

In conclusion, IMMUNO-model has transformed fragmented expertise into a connected, inclusive and highly collaborative European community dedicated to improving cancer immunotherapy through better and more predictive preclinical models. Its greatest legacy is not only the scientific outputs generated, but also the enduring partnerships, shared expertise and collaborative culture established across countries, disciplines and sectors. While the challenge of further harmonising immuno-oncology models remains ongoing, the foundations laid by IMMUNO-model, and continued through the EFIS Study Group HARMONY, provide a strong basis for future scientific advances, innovation and collaboration in the field of cancer immunotherapy research.