

IMMUNO-model
Modelling immunotherapy response
and toxicity in cancer

Annual Report

Grant Period 3

COST Action CA21135 IMMUNO-model
**“Modelling immunotherapy response and toxicity in
cancer”**
(2022-2026)

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Commentato [MG1]: The CG changed in GP3 (Feb 2025), kindly add the missing members here and anywhere else you see fit. WG Leaders and TGRCs. thanks

Document history

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1. Overview of activities in GP3

During the third grant period (GP3), 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 “Harmonizing models of immunotherapy: Past, present and future directions” took place on 7–8th April 2025 in Bergen, Norway, bringing together 53 participants in a hybrid format to discuss *in vivo* models for immunotherapy. The event focused on the goals of Working Group 2 (WG2): advancing preclinical models, fostering data sharing, and strengthening translational collaboration in immuno-oncology.

The second workshop titled “*IMMUNO-model YRI Meeting – Young Researchers and Innovators on Immunotherapies: The Future is Now*” (25th September 2025) in Porto, Portugal, was a hybrid event which brought together 61 participants in total, including early-career researchers from 13 countries and international experts, to share the latest advances in immunotherapy and foster scientific collaboration.

Finally, the third Annual Conference titled “*Modeling Immunotherapy for Cancer – Bridging Research to Clinical Application*” was held at the University of Warsaw (Poland) on 13-14th May 2025. The event had a hybrid format, with a total number of 98 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.

In summer 2025 (30th June-2nd July) a Training School (TS) was organised at the Faculty of Medicine, University of Coimbra, Azinhaga de Santa Comba – Celas, 3000-548 Coimbra, Portugal. In line with the IMMUNO-model COST Action goals, this training school focused on the emerging role of liquid biopsies in haematological malignancies, particularly in identifying biomarkers for immunotherapy (WG4). This summer school combined theoretical sessions and hands-on lab activities, fostering interactive learning and practical skill development. Topics covered i) Diagnostic and prognostic applications of liquid biopsies, ii) Monitoring disease progression and drug response, iii) Protocol optimization and lab techniques.

It is important to mention that during this period several meetings of the Working Groups (WGs) were held, which were useful for the participants to get to know one another and keep proposing activities to achieve the objectives of the Action.

With these and the other activities detailed below, the foundation stones of the project were strengthened, and its products/results will be seen during the fourth Grant Period.

Meetings

- Workshop 1 *Harmonizing models of immunotherapy: Past, present and future directions*” on 7–8th April 2025 in Bergen, Norway, led by Working Group 2. 53 Unique participants
- Workshop 2 *IMMUNO-model YRI Meeting – Young Researchers and Innovators on Immunotherapies: The Future is Now*, on 25th September 2025 in Porto, Portugal, led by TGRC Group. 61 Unique Participants
- IMMUNO-model Annual Conference, on 13-14th May 2025, in Warsaw, Poland. 98 Unique Participants
- 10 Core Group Meetings, one in person.
- 2 Management Committee Meetings, both virtual.

Training School

- Summer school on Identification of Immunotherapy Biomarkers, 30 June-2 July 2025 at the University of Coimbra, Coimbra, Portugal. 5 trainers and 21 trainees.

Webinars

- 1st Webinar: Spatial Biology in Drug Discovery and Immunotherapy: exploring innovative technologies on 19th December 2024. 65 Unique Participants.
- 2nd Webinar: Computational aspects of spatial biology on 14th April 2025. 43 Unique Participants.
- 3rd Webinar: CAR-T Cell Therapy: Precision Immunoengineering in Modern Oncology on 10th June 2025. 20 Unique Participants.
- 4th Webinar: Turning Collaboration into Funding: MSCA Doctoral Network Success from IMMUNO-model to ACHILLES on 4th July 2025. 47 Unique Participants.
- 5th Webinar: Natural Killer Cells in Action: From Bench to Bedside on 30th September 2025. 32 Unique Participants.

Mobility Grants from IMMUNO-model:

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

Grant applications from IMMUNO-model members:

- TRANSCAN-3, HEALTH, DEMOGRAPHIC CHANGE AND WELLBEING:
 - Action participants listed among the proposers (Name and Country): Leticia Oliveira-Ferrer, Germany; Devrim Pesen Okvur, Turkey; Rebeca Pamplona, Spain; Funded. *Immune oncology Drug Discovery & Decision: Advanced ex vivo Approach to Accelerate Response Prediction for Combined Therapies in Ovarian Cancer*
- MSCA Doctoral Network grant, HEALTH, DEMOGRAPHIC CHANGE AND WELLBEING
 - Action participants listed among the proposers: Emanuele Azzoni, Italy; Laura Belver, Spain; Theodora Katsila, Greece; Katarina Nikolic, Serbia; Peter Rashkov, Bulgaria; Nuno Rodrigues dos Santos, Portugal; Ciprian Tomuleasa, Romania; funded

Dissemination Materials:

- Update and maintenance of the IMMUNO-model Website
- Roll-up banner for meetings and events
- Post-production of webinars
- Industry power point template
- Various Flyers and word template for the dissemination of IMMUNO-model COST Action and for grants calls
- Newsletters
- STSM, VM, DC, ITC, YRI Grants reports

Other Expenses Related to Scientific Activities (OERSA)

- Zoom License
- Bank Charges

Budget

	Approved Budget			Actual Expenditure		
	Budget	LOS	TOTAL		LOS	TOTAL
WG 2 Workshop Hybrid Norway 06-07/03/2025	19.944,00	2.000,00	21.944,00	20.018,11	715,00	20.733,11
Annual Conference Poland 13-14/05/2025	50.000,00	4.000,00	54.000,00	42.365,95	6.000,00	48.365,95
YRI Meeting Hybrid Portugal 25/09/2025	18.054,00	1.000,00	19.054,00	24.293,05	2.870,00	27.163,05
MC1 Virtual						0,00
CG meetings virtual x 10						0,00
Webinars x 4	0,00	0,00	0,00			0,00
Training School Portugal 30/06-02/07/2025	30.100,00	3.500,00	33.600,00	25.555,07	1.188,00	26.743,07
STSM	15.700,00	0,00	15.700,00	14.570,00		14.570,00
VM	4.500,00	0,00	4.500,00	4.500,00		4.500,00
ITC Conference	4.500,00	0,00	4.500,00	502,00		502,00
Dissemination Conference	1.500,00	0,00	1.500,00	0,00		0,00
YRI	0,00	0,00	0,00	5.540,00		5.540,00
Scientific publication in Open Access	13.700,00	0,00	13.700,00	13.700,00		13.700,00
Scientific publication in Open Access	10.000,00	0,00	10.000,00	9.366,71		9.366,71
Website Maintenance	1.600,00	0,00	1.600,00	1.700,00		1.700,00
Website Maintenance Enhancement	0,00		0,00	3.500,00		3.500,00
Bank charges	1.700,00	0,00	1.700,00	420,00		420,00
Consumables and rental equimenty for TS	0,00		0,00	1.219,40		1.219,40
			181.798,00			178.023,29
			27.269,70			26.703,49
			209.067,70			204.726,78

2. Overview of WG activities

2.1. WG1/WG3

Joint WG1 and WG3 meetings were held starting from January 2024, because many participants were engaged in both working groups, and this was continued in GP3, when WG1 leadership changed and dr. Emanuela Senjor and Lukasz Skalniak took over. Both WGs organized subsequent meetings, allowing members to schedule themselves on the agenda, fostering discussions on specific scientific questions, challenges, sample sharing and STSMs prospects. During this gathering, the workgroup's objectives were outlined, and diverse opportunities were explored such as Short-Term Scientific Missions (STSMs), workshop organization, and training school participation. In addition, several tumor-specific task forces were initiated to strengthen disease-focused collaboration and to explore joint grant opportunities and collaborative manuscript writing across different cancer types. Notably, Dr. Marta Maleszewska and collaborators organized the 2025 Annual Conference in Poland, and Dr. Rebeca Sanz-Pamplona and Dr. Maurizio Callari continued with their efforts in the scope of Computational Immune-Oncology taskforce. Knowledge Hub platform was promoted during these meetings and new initiative was proposed: CoLab Teams Channel, by Lukasz Skalniak. These Paths and tools were defined to achieve objectives of IMMUNO-model COST Action, particular to WG1 and WG3. Both WGs organized a Computational Immune-Oncology taskforce, 5 webinars. Reflecting on an exciting third year, the WG Leaders are dedicated to further shape the working group and advancing the objectives collectively in the coming year. (Please see more details in Section 4).

2.2. WG2

During GP3 we had a change in leadership with Dr. Doreen Lau joining the leadership team. The major highlight of activity in GP3 has been a workshop held in Bergen, Norway on April 7th and 8th which showcased 14 speakers and had 53 participants. The hybrid meeting presented *in vivo* models from zebrafish to porcine models and featured a second day where the participants discussed the future directions of activities in WG2. Subsequently, 5 task forces have been established to generate review

and commentary articles highlighting the need for harmonization across the immunoncology sphere. This work is being spearheaded by Dr. Doreen Lau, Dr Andreia Peixoto, Dr. Eleni Douni, Dr. Nikolas Dietis, Dr. Günes Esendađlı and Emmet McCormack. A webinar was also held on October 14th 2024 presenting the efforts of industry KOLs in both efficacy and toxicology aspects of immunoncology.

2.3. WG4

During GP2, WG4 members applied together for several major funding initiatives:

- 1) European Partnership for Personalized Medicine (EP PerMed), led by Ciprian Tomuleasa (Romania) with four participants,
- 2) MSCA Doctoral Network grant, coordinated by Laura Belver (Spain), involving 15 researchers.
- 3) EHA Bilateral grant, led by Emanuele Azzoni (Italy) with two participants.

Beyond efforts to secure funding, WG4 is spearheading a special issue in *Frontiers in Immunology* on cellular immunotherapies, featuring four contributions from WG4 members on CAR-T cells, NK CARs, macrophage CARs, and TILs.

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 GP3:

- Dissemination & Communication Plan was prepared and approved by MC
- Webpage and social media platform establishment (Instagram) and its management (LinkedIn, X, YouTube channel, Instagram)
- Organization of events, activities of the COST Action 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 COST activities and results (scientific papers, EACR advertisement 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 to Patients Engagement Task Force
- Annual Report GP3

Dissemination activities:

ITEM / ACTIVITY	TARGET AUDIENCE	RESULT	HYPERLINK
Prepared overview of SMEs within immunology+oncology with profiles on LinkedIn, to identify potential members to	SMEs, Industry	New members of IMMUNO-model	https://www.linkedin.com/company/92496747/admin/dashboard/

approach for recruitment			
Website	Researchers interested to immunotherapy	Information to all interested scientists in the field of immunotherapy as well as members	https://www.immuno-model.eu/
Advertisement of webinars through EACR website	Researchers interested to immunotherapy	Information to all interested scientists in the field of immunotherapy as well as members	Visit the website
Communication at the 19th European Molecular Imaging Meeting	Researchers interested to immunotherapy	Disseminate CA21135 that increased recruitment of members to the CA; Emmet Mc Cormack (WG2 Leader) from University of Bergen presented IMMUNO-model COST action at the 19th European Molecular Imaging Meeting held in Porto, Portugal (12th-15th March 2024)	https://e-smi.eu/meetings/emim/2024-porto/ . https://www.immuno-model.eu/category/presentations/
Videos	Researchers interested to immunotherapy	Disseminate CA21135 that increased recruitment of members in the IMMUNO-model	https://www.immuno-model.eu/newss/promotional-videos-of-immuno-model-cost-action-are-out/
Flyers	Researchers, industry, students	Promote CA21135 COST Action and its objectives	https://www.immuno-model.eu/newss/immuno-model-flyers-are-out/
Newsletters	Researchers, industry, students	Highlights CA21135 activities and the achievement of its objectives	https://www.immuno-model.eu/#popup-menu-news
Communication through EACR	Cancer researchers, students, industry, clinicians	Advertising Action invitation for membership and active engagement	Online Collaborations The European Association for Cancer Research , https://www.eacr.org/
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	Cancer researchers, students,	Public available activities of IMMUNO-model	www.osf.io

COST Action activities	industry, clinicians		
Podcasts	Cancer researchers, students, industry, clinicians	Dissemination of knowledge	https://www.immuno-model.eu/category/podcast-series/
Presentation IMMUNO-Model	Cancer Patient Organisation, UKE, Hamburg, Germany	Engagement Patients Task Force	https://www.immuno-model.eu/patient-information/
Patients flyer	Patients, scientists	Patients' involvement in IMMUNO-model activities	https://www.immuno-model.eu/patient-information/
Lay Videos	Patients	Patients' involvement	https://www.immuno-model.eu/patient-information/

2.5 Patient Engagement Task Force

The Patient Engagement Task Force of the COST Action IMMUNO-model, led by Leticia Oliveira-Ferrer, brings together scientists, healthcare providers, patients and representatives of cancer patient organisations to improve patient involvement in immunotherapy research and implementation. IMMUNO-model activities during GP3 have been to foster dialogue between patients and researchers, bridging the gap between cutting-edge science and patient-centred care. IMMUNO-model has been committed to creating clear, accessible educational materials that explain immunotherapies and the goals of our COST Action. In particular, a session in IMMUNO-model website and flyers have been created for patients. These resources have been designed to empower patients with knowledge and will be disseminated through channels that effectively reach diverse audiences. In addition, webinars organized by IMMUNO-model COST Action Chair and Vice-chair together with other members and WG leaders will provide educational activities. Patients Engagement Task Force prioritises ensures a strong patient presence at conferences and workshops organised by our COST Action. IMMUNO-model also promotes patient involvement in research planning to ensure that their perspectives guide the development of future immunotherapy trials. Through these initiatives, IMMUNO-model aims to build a strong partnership between science and patient advocacy to drive advances that improve 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, the 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 3 open-access experimental protocols. This facilitates innovation and standardization in immuno-oncology research.

3. Events

3.1. Training School and Workshops

3.1.1 *1st Workshop “Harmonizing models of immunotherapy: Past, present and future directions”* on 7–8th April 2025 in Bergen, Norway, led by Working Group 2.

Predictive Biomarkers of Toxicity and Immunotherapy Response in Advanced Melanoma”, March 14–15th, 2024 (hybrid event), Skopje, North Macedonia.

Objective: Harmonize *in vivo* models of immunotherapy.

The “Harmonizing models of immunotherapy: Past, present and future directions” workshop

The workshop opened with welcome remarks from WG2 Leader Emmet Mc Cormack and featured an engaging scientific program with excellent presentations from early-career and senior researchers. Speakers addressed diverse topics, including zebrafish and canine companion models, humanized mice, nanoparticle delivery systems and bone marrow organoids. The workshop effectively showcased a broad range of *in vivo* immunotherapy models enabling participants to reflect on common strengths and limitations such as predictive power, clinical relevance, and translational potential. Invited speakers included Rita Fior (Portugal), Johanne Jacobsen (Norway), and Enni Markkanen (Switzerland), whose presentations highlighted innovative approaches and future directions in modeling immune responses to cancer.

Sessions were moderated by Emmet Mc Cormack, Calum Leitch, and Vibeke Samuelsen Fosse (University of Bergen), and included contributions from academia, clinical institutions, and industry. Poster sessions and coffee breaks provided additional opportunities for networking and collaboration. Virtual participants engaged via Zoom live streams and chat function, which enabled interaction and exchanges throughout the sessions.

Day 2 featured a recap of key insights and a strategic planning session focused on defining WG2 objectives and identifying common challenges in *in vivo* modeling for immunotherapy. The engaging discussions also offered a valuable opportunity for both early-career and senior researchers to openly reflect on the challenges and opportunities of academic career development, leading to meaningful insights and new connections.

The workshop successfully strengthened the IMMUNO-model network, encouraged new collaborations, and laid the groundwork for a joint WG2 publication.

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

Number of participants: 53

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 & Organizing Committee:

Prof. Emmet Mc Cormack: Emmet.Mc.Cormack@uib.no
Dr. Dauren Lau

Dr. Calum Leitch
Dr. Zinayida Fandalyuk

Topics covered:

- Overview of the Landscape of current preclinical models
- Novel development is the application of humanized model systems
- iPSC derived immunomodels
- Application of Comparative Animal models
- Future directions in preclinical modelling to accelerate clinical development

Program with topics:

Day 1: 7th April 2025

08:30 – 09:00	Registration
09:00 – 09:05	Welcome and Opening: Emmet Mc Cormack, WG2 Leader
09:05 – 09:35	Zebrafish Avatars: a platform for personalized medicine and discovery of innate immune mechanisms and modulators for cancer immunotherapy Rita Fior, <i>Champalimaud Foundation, Lisbon, Portugal</i>
09:35 – 09:55	An angiogenesis-independent mechanism of action for anti-VEGFA therapies Cátia Rebelo de Almeida, <i>Champalimaud Foundation, Lisbon, Portugal</i>
09:55 – 10:25	Advanced Triple-Negative Breast Cancer Immunotherapy: Leveraging Chitosan/ γ -PGA Nanoparticles with IFN- γ therapy Flávia Castro, <i>i3S – Instituto de Investigação e Inovação em Saúde da Universidade do Porto, Portugal</i>
10:25 – 10:45	CD276 immature glycosylation drives colorectal cancer aggressiveness and T-cell-mediated immune escape Andrea Peixoto, <i>Portuguese Oncology Institute of Porto (IPO Porto), Portugal</i>
10:45 – 11:00	Coffee break & poster viewing
11:00 – 11:15	Session moderator Calum Leitch, <i>Department of Clinical Science, University of Bergen, Norway</i>
11:15 – 11:45*	TBA Johanne T Jacobsen, <i>Institute for Immunology and Transfusion Medicine University of Oslo, Norway</i>
11:45 – 12:05	Implementing human bone marrow organoids to interrogate microenvironmental influences on the efficacy of blood cancer immunotherapies Zoë Wong, <i>University of Oxford, United Kingdom</i>
12:05 – 12:35	Engineering allorejection-resistant adaptive NK cell therapies Karen Martin, <i>Oslo University Hospital, Norway</i>
12:35 – 12:55	NSGS mice humanized with cord blood mononuclear cells show sustained and functional myeloid-lymphoid representation with limited graft-versus-host-disease

	Carla Panisello, <i>Josep Carreras Leukaemia Research Institute, Barcelona, Spain</i>
13:00 – 13:45	Lunch & poster viewing
13:45 – 13:55	Session moderator Vibeke Samuelsen Fosse, <i>Department of Clinical Science, University of Bergen, Norway</i>
13:55 – 14:25	From Canine Companions to Cancer Cures: The Value of Dogs for Immuno-Oncology Enni Markkanen, <i>Institute of Veterinary Pharmacology and Toxicology University of Zurich, Switzerland</i>
14:25 – 14:55	The Use of Minipigs to Assess Drug Safety of Immunotherapies Samuel Chuang, <i>Charles River Laboratories, USA</i>
14:55 – 15:25	CRISPR-Generated Mouse Models for Cancer Immunotherapy Martin Thomsen, <i>Department of Biomedicine, Aarhus University, Denmark</i>
15:25 – 15:40	Coffee break & poster viewing
15:40 – 16:00	Immunotherapy: Revolutionizing Cancer Treatment through Personalized Approaches Uzma Hasan, <i>International Center for Infectiology Research (CIRI), Lyon, France</i>
16:00 – 16:20	The possibilities of determining cytokines by various methods during immunotherapy in cancer patients and their clinical significance Vladimir Jurisic, <i>Faculty of Medical Sciences, University of Kragujevac, Serbia</i>
16:20 – 16:40	Bioinspired nanoparticles for targeted cancer therapy Wujun Xu, <i>Department of Technical Physics, University of Eastern Finland, Finland</i>
16:40	Closing remarks. Group photo
18:00	Dinner

Day 2: 8th April 2025

Welcome & Recap (15 min)

Summary of Day 1 key themes: What are the major insights from the talks?

Defining IMMUNO-model COST Action and WG2 objectives:

Objective 1: To build a critical mass of immuno-oncology researchers to foster knowledge exchange and the development of a joint research agenda around preclinical models in immunotherapy

Objective 2: To collect, integrate and organise experimental data on immunotherapy models and establish open-access standardised protocols and guidelines.

Objective 3: To facilitate the transferability of knowledge between basic, translational, and clinical investigators, and with SMEs.

Agenda for Day 2:

- Identify critical challenges in *in vivo* models for immunotherapy
- Define scope and structure for a collaborative WG2 publication
- Future activities of WG2

Focused discussion sessions: Challenges & Opportunities (1 hour)

Brainstorming speed discussion sessions on the following aspects of *in vivo* immunotherapy models:

- ~~3.1~~ Animal Models (e.g. rodents, canines, minipigs, non-human primates)
- ~~3.2~~ Non-mammalian Models (e.g. zebrafish, chicken embryo, drosophila)

3. Standardisation & Reproducibility: How do we improve consistency across different models for immuno-oncology studies?

~~3.4.~~ Translational Gaps: What are the biggest barriers in moving from preclinical models to clinical trials?

~~3.5.~~ Emerging Technologies: What new tools (e.g. AI digital twin, advanced imaging, organoids, microfluidic lab-on-chip) should be incorporated?

10 – 15 minutes per topic. The goal should be to summarise current state of the field and identify 2-3 challenges/opportunities for each theme that could be addressed to improve immunotherapy modelling.

Panel Discussion: Turning Insights into Action (45 min)

Moderators (WG2 leader and Expert Discussion Leads) will consolidate outcomes into a concrete publication plan. Key questions:

- Should we write a single comprehensive review or a series of focused papers?
- Tentative paper structure and key themes
- Identify potential authors and writing groups to lead each section
- Timelines and plan follow-up meetings
- Target journals (e.g. Nature Reviews, Cancer Immunology Research, Journal for ImmunoTherapy of Cancer, Immunotherapy Advances)

WG2 leaders will draft a roadmap for publication.

Future Activities for WG2 (45 min)

Goal: Expand WG2's impact through publications, funding and networking.

- Database of *in vivo* models, standardised protocols and guidelines
- Publications (e.g. review and guideline papers)
- Funding opportunities (e.g. ERC grant, EIT health, CRI, Cancer Grant Challenges)
- Workshops/Summer schools (e.g. Humanised mice, zebrafish models, *in vivo* imaging for immunotherapy)
- Outreach to cancer/immunology/imaging societies and public engagement
- Activities to foster women, minority and early career scientists

End of Workshop Closing Remarks (15 min)



The poster features a blue background with a white and red cell-like graphic in the top left. The title 'IMMUNO-model WORKSHOP' is in white and red. A QR code is in the top right with the word 'Registration' below it. The main text reads 'Harmonizing *in vivo* models of immunotherapy, past present and future directions of WG2'. Below this are three images: a row of houses, a map of Norway, and a 3D model of a mouse. The 'Registration details' section lists event specifics. At the bottom, logos for COST, the European Union, and Brunel University's Faculty of Medicine are displayed.

IMMUNO-model WORKSHOP Registration

Harmonizing *in vivo* models of immunotherapy, past present and future directions of WG2

Bergen, Norway

Registration details

- Hybrid event, online and in-person.
 - Online participation is limited to passive attendance only.
- Open to both IMMUNO-model members and non-members
- Submit abstract for oral or poster presentation
- Deadline: **March 17, 2025** (in person)
March 23, 2025 (virtual)

For more details contact WG2 leaders Prof. Emmet McCormack (emmet.mc.cormack@uib.no) or Dr Doreen Lau (Doreen.Lau@brunel.ac.uk)

EU COST Action:
The COST Action IMMUNO-model CA21135 aims to foster research and innovation in the field of preclinical immuno-oncology models with the goal of advancing in the treatment of cancer patients by improving their outcomes and quality of life.

7- 8 April 2025
Day 1 Lectures, Day 2 WG2 discussions

BBB building, University campus
Jonas Lies vei 91, Bergen

cost EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

Funded by the European Union

UNIVERSITY OF BRUNEL Faculty of Medicine

- 3.1.2 2nd Workshop IMMUNO-model YRI Meeting – Young Researchers and Innovators on Immunotherapies: The Future is Now”

The workshop was held on 25th September 2025 in Porto, Portugal, led by TGRC Group.

The event opened with a welcome from Prof. Carmen Jerónimo, Director of the IPO Porto Research Center, who highlighted the transformative potential of immuno-oncology research for patient care. Dr. Júlio Oliveira, President of the IPO Porto Board of Directors, stressed IPO Porto's commitment to nurturing young researchers and fostering initiatives that link scientific discovery with clinical application.

The scientific programme featured 12 selected oral presentations and multiple poster contributions, highlighting novel preclinical models and innovative therapeutic strategies, with studies exploring tumor-immune interactions, combination therapies, and mechanisms of response and resistance to immunotherapy.

The meeting also included presentations by distinguished speakers – Elena Hoffer (Alma.me, Sweden), Paula Videira (NOVA FCT, Portugal), Thiago Carvalho (Fellowsherpa SL, Spain), Leticia Oliveira-Ferrer (UKE, Germany), and Eva Martinez-Balibrea (IGTP, Spain) – who emphasized the importance of transversal skills for early-career researchers, including career planning, science communication, grant writing, and fostering international collaborations.

The workshop concluded with a roundtable discussion on career trajectories and motivations, followed by the presentation of awards for the best oral and poster contributions and a networking session that encouraged scientific exchange and fostered collaborations across Europe.

From the perspective of IMMUNO-model, the workshop highlighted the vibrancy and talent of Europe's young immuno-oncology community. Importantly, it demonstrated how innovative research is translating discoveries into preclinical models capable of studying tumor response and resistance to immunotherapy, while fostering networking and cross-border collaborations that reinforce the pathway from bench to bedside and ultimately aim to improve patient outcomes.

Number of participants: 61

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.

Scientific & Organizing Committee:

- Catarina A. Rodrigues – Portuguese Oncology Institute of Porto, Portugal
- Hanne Haslene-Hox – SINTEF, Norway
- Denis Collins – Dublin College University, Ireland
- Margareta Correia – Portuguese Oncology Institute of Porto, Portugal
- Lucia Juhásiková – Slovak Academy of Sciences, Slovakia
- João Pereira – Institute for Research and Innovation in Health, Portugal
- M. Helena Vasconcelos – Institute for Research and Innovation in Health, Portugal

Program with topics:

8:30 – 9:00 Arrival of attendees & Registration

9:00 – 9:10 Welcome and Opening Remarks The Importance of Immuno-Oncology Research for Clinical Practice Cármen Jerónimo (Director of the IPO Porto Research Center, Portugal)

Session 1 9:10 – 10:25

9:10 – 9:35 Invited Speaker – Career Paths and Opportunities Where a PhD Can Take You: Exploring Career Paths and Skills Elena Hoffer (Alma.me, Sweden)

9:35 – 9:45 Selected Abstract 1 Novel *in vitro* and *in vivo* models to evaluate NK cellbased immunotherapies against lung metastases Paula Martín-Rubio (PhD student, IIS Aragón, Spain)

9:45 – 9:55 Selected Abstract 2 CD49a+ CD10+ mesenchymal stromal cells aim to tolerate the inflammatory TME and repurpose immune responses against cancer cells Panagiotis Mallis (Postdoctoral Fellow, BRFAA, Greece)

9:55 – 10:05 Selected Abstract 3 Longitudinal clustering of TNBC patients using transcriptomics data: a trajectory distance-based approach Marco Barreca (PhD student, UNIMIB, Italy)

10:05 – 10:15 Selected Abstract 4 Targeting EGFR and STAT3 in ETV1-positive prostate cancer: insights from 2D and 3D co-culture models Elsa Paiva (PhD student, IPO Porto, Portugal)

10:15 – 10:25 Q&A and Open Discussion

10:25 – 10:55 Coffee Break & Poster viewing

Session 2 10:55-12:10

10:55 – 11:20 Invited Speaker – Advancing IO through Collaborative Research and Funding from Connection to Collaboration: Building Enduring Scientific Partnerships in Immuno-Oncology Paula Videira NOVA FCT, Portugal

11:20 – 11:30 Selected Abstract 5 Microfluidics-based bioprinting applied for the generation of 3D cell models to study tumor-immune cells interaction Ronald Terrazas Mallea (Postdoctoral Fellow, IPC PAS, Poland)

11:30 – 11:40 Selected Abstract 6 Losartan as a mechanotherapeutic adjuvant: remodeling the breast TME to improve treatment efficacy Mutaz Dwairy (Researcher, Yarmouk University, Jordan)

11:40 – 11:50 Selected Abstract 7 Dual-Targeted nanoparticle and Immunotherapy strategy for colorectal cancer treatment Ana Baião (PhD student, i3S, Portugal)

11:50 – 12:00 Selected Abstract 8 From matrix remodeling to macrophage polarization: the role of ADAMTS1 and NIDOGEN-1 in melanoma immunity Carlos Peris-Torres (Postdoctoral Fellow, GENYO, Spain)

12:00 – 12:10 Q&A and Open Discussion

12:10-14:05 Lunch Break & Poster Pitch Presentation

Session 3 14:05-15:20

14:05 – 14:30 Invited Speaker – Communicating Science: From Bench to Society Signal to Noise: Communication Science in 2025 Thiago Carvalho (Fellowsherpa SL, Spain)

14:30 – 14:40 Selected Abstract 9 Combining the intratumoural vaccine adjuvant C100 with IL33/ST2 axis blockade enhances protection against tumour progression Lorena Garcia-del-Rio (Postdoctoral Fellow, TCD, Ireland)

14:40 – 14:50 Selected Abstract 10 A multidisciplinary approach to target HIF2 α and PD-1 axes in clear cell renal cell carcinoma Maitane Marquez (PhD student, IIS Biogipuzkoa, Spain)

14:50 – 15:00 Selected Abstract 11 Identifying the drivers of T cell-mediated immunosuppression in ovarian cancer malignant ascites Vitor M. Gaspar (Researcher, CICECO, Portugal)

15:00 – 15:10 Selected Abstract 12 Identifying the drivers of T cell-mediated immunosuppression in ovarian cancer malignant ascites Gulsah Albayrak (Postdoctoral Fellow, University of Oxford, United Kingdom)

15:10 – 15:20 Q&A and Open Discussion

15:20 – 15:50 Coffee Break & Poster viewing

Session 4 15:50-17:00

15:50 – 16:15 Invited Speakers – Grant Proposals and Global Mobility in Immuno-Oncology: Building Strong Grant Proposals and International Consortia: TRANSCAN-3 ioAVATAR Leticia Oliveira-Ferrer (UKE, Germany)

16:15 – 16:35 From Networking to Career Growth: Lessons from the IMMUNO-model COST Action Eva Martinez-Balibrea IGTP, Spain

16:35 – 16:55 Roundtable Discussion Defining Success as a Young Researcher and Innovator: Metrics, Meaning, and Motivation

16:55 – 17:05 Closing Remarks & Announcement of best oral presentations and posters Networking session Until 18:15

20:00 - 23:00 Social event – dinner at “Mind The Glass” Restaurant
(<https://share.google/tg3XsTgtdXcztBOyK>)



3.1.3 2nd Training School “Liquid Biopsies in Hematological Malignancies”, 30th June-2nd July 2025

The training school was held at the Faculty of Medicine, University of Coimbra, Azinhaga de Santa Comba – Celas, 3000-548 Coimbra, Portugal. A total of 32 participants, including 21 trainees selected from 43 applicants across 11 countries, attended the training. The group included PhD students, postdoctoral fellows, and researchers, with a strong representation of Young Researchers and Innovators.

Program Highlights

The training school featured a blend of theoretical sessions and hands-on lab activities, fostering interactive learning and practical skill development. Topics covered included:

- Diagnostic and prognostic applications of liquid biopsies
- Monitoring disease progression and drug response
- Protocol optimization and lab techniques

The multidisciplinary backgrounds of both trainers and trainees enriched discussions, offering varied perspectives and promoting collaborative problem-solving.

Number of participants: 21

Trainers:

- [Ana Bela Sarmiento Ribeiro](#)
- [Ana Cristina Gonçalves](#)
- [Bárbara Oliveiros](#)
- [Cristina Xavier](#)
- [Francisco Caramelo](#)
- [Henrique Girão](#)
- [Joel Arrais](#)
- [Maria Helena Vasconcelos](#)
- [Raquel Alves](#)
- [Rui Bergantim](#)
- [Teresa Rodrigues](#)

Organizers

- Ana Bela Sarmiento-Ribeiro (FMUC/CHUC)
- Ana Cristina Gonçalves (FMUC)
- Raquel Alves (FMUC)
- M. Helena Vasconcelos (i3S/FFUP)
- Rui Bergantim (i3S/ULS – São João)

Training School Schedule

Day 1 – 30 th June		Day 2 – 1 st July		Day 3 – 2 nd July	
9h00	Registration	9h00	Lesson IV Technologies applied to liquid biopsies – Applications – Trainers 4, 5 and 6	9h30	Lab Training
9h30	Opening Session – Trainer 1 (ABSR)	9h40	Cases discussion Technologies applied to liquid biopsies – Results interpretation – Trainers 4, 5 and 6		LG IV - TEPs
9h45	Lesson I Hematological malignancies (HM) – An overview Trainer 1 (ABSR)	10h40	Coffee break		LG V - EVs
10h45	Coffee break	11h00	Lesson V Computational approaches applied to liquid biopsies – Trainer 7 (JA)		LG VI – CTC
11h00	Lesson II Immunotherapy in HM Trainer 2 (RB)	11h40	Cases discussion Computational approaches – Results interpretation – Trainers 7 (JA), 8 (BO) and 9 (FC)		- Trainer 4 (ACG), Trainer 5 (RA), Trainer 6 (CX) and collaborators (HG, TR)
12h00	Lesson III Introduction to liquid biopsies Trainer 3 (MHV)	13h00	Lunch Break	13h00	Lunch Break
13h00	Lunch Break	14h30	Lab Training	14h30	Lesson VI Clinical applications of liquid biopsies – Trainer 1 (ABSR)
14h30	Lab Training		LG IV - TEPs		Cases discussion Clinical applications of liquid biopsies – Results interpretation – Trainer 2 and 3 (MHV and RB)
	LG I – TEPs		LG V - EVs	15h00	
	LG II – EVs		LG VI – CTC	15h45	Closing session – Trainer 1 and 2 (ABSR and MHV)
	LG III – CTC		- Trainers 4 (ACG), Trainer 5 (RA), Trainer 6 (CX) and collaborators (HG, TR)		
	- Trainers 4 (ACG), Trainer 5 (RA), Trainer 6 (CX) and collaborators (HG, TR)	18h00	End of Day		
18h00	End of Day				

ABSR – Ana Bela Sarmiento Ribeiro, MD, PhD (FMUC, ICBR-CIMAGO/CIBB, ULS-C); ACG – Ana Cristina Gonçalves, PhD (FMUC, ICBR-CIMAGO/CIBB); RA – Raquel Alves, PhD (FMUC, ICBR-CIMAGO/CIBB); BO – Bárbara Oliveiros, PhD (FMUC, ICBR/CIBB); FC – Francisco Caramelo, PhD; HG – Henrique Girão, PhD (FMUC, ICBR/CIBB); TR – Teresa Rodrigues, PhD (FMUC, ICBR/CIBB); MHV – Maria Helena Vasconcelos, PhD (FFUP, I3S); RB – Rui Bergantim, MD, PhD (FMUP/I3S, ULS-SJ); CX – Cristina Xavier (I3S, UCIBIO, IUICS-CESPU, I3S); JA – Joel Arrais (FCTUC)

The training school was very successful. Sample feedback from participants:

“A comprehensive program covering key approaches in liquid biopsies.”

“The benefit of practical sessions to discuss protocol and wet-lab tips on this subject.”

“Once again, thank you so much for the wonderful training — I’m still truly amazed by everything you shared.”

“The TS was well organised and exceeded all my expectations.”



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

The third Annual Conference was held at the University of Warsaw (Poland) on 13-14th May 2025. The event had a hybrid format, with a total number of 98 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 University of Warsaw, bringing together an international community of 98 researchers, clinicians, and industry professionals dedicated to advancing preclinical immuno-oncology. Organized within the framework of our COST Action, the meeting was held under the theme *“Modeling Immunotherapy for Cancer – Bridging Research to Clinical Application”*, emphasizing the translational value of preclinical models in cancer immunotherapies.

The scientific programme featured a rich array of invited lectures, selected oral presentations, and poster contributions, structured across four thematic areas: *in vitro*, *in vivo*, *in silico*, and *ex vivo* models. The opening keynote by David Fernandez-Antoran introduced an innovative immune-epithelioid culture system that enables long-term *in vitro* modelling of immune-epithelial crosstalk. This was followed by invited talks from José Alexandre Ferreira, who presented glycoengineered cancer models for immunological profiling, and Lucia Gabriele, who showcased 3D microfluidic systems to investigate immune-tumor interactions and drug responses.

Further contributions in the *in vitro* session included Natalia Marek-Trzonkowska’s presentation on cellular therapy approaches for non-small cell lung cancer and Thomas Sommermann’s overview of

dynamic vascularized organ-on-chip platforms. Selected oral presentations added depth, with Emanuela Senjor reporting on the role of cathepsin V inhibition in glioblastoma and NK cell activity, and Silvia López Borrego presenting the impact of MICA alleles on NKG2D modulation in NK cells.

In vivo modelling was opened by Bozena Kaminska, whose keynote lecture focused on dissecting immune heterogeneity in brain tumors using single-cell and spatial transcriptomics. Invited talks by Catarina Brito and Michal Mikula highlighted, respectively, the use of advanced 3D cultures to simulate tumor microenvironments and the development of patient-derived xenografts for functional precision oncology. A special session included IMMUNO-model network updates, followed by selected oral presentations from Jakub Godlewski, who described the evaluation of vaccine-like particles in glioblastoma models; Tianren Shi, who explored determinants of immune infiltration in triple-negative breast cancer through multi-omics analyses; and Marco Barreca, who introduced a tool for mining public pan-cancer transcriptomic data for immuno-oncology research.

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.

On the second day, the conference turned to computational and *ex vivo* approaches. Johannes Textor's invited talk emphasized the use of mechanistic *in silico* simulations to guide clinical trial design. Björn Rotter presented methods for RNA analysis from FFPE tissue and liquid biopsies, and Pablo Conesa-Zamora discussed the use of engineered bacteria to deliver neoantigens systemically. Selected oral presentations by Lucia Juhasikova and Uzma Hasan, respectively, highlighted the use of organotypic slice cultures to evaluate immunotherapy in pancreatic cancer and a personalized *ex vivo* platform to characterize immune responses in tumor slices.

The closing session on *ex vivo* models featured invited talks by Gunes Esendagli on T-cell migration using microfluidic platforms and Nataliia Beztsinna on the use of patient-derived organoids and fresh tissue cultures for drug testing.

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 of the IMMUNO-model network, reinforcing its collaborative spirit. The event successfully showcased the value of integrated, multidisciplinary preclinical modeling 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.

For more information, please visit the conference website <https://immunomodelconference.github.io/>

Scientific Program Committee

- Barbara Breznik – National Institute of Biology, Slovenia
- Łukasz Skalniak – Jagiellonian University, Poland
- Ginés Luengo Gil – Pathology Department, Instituto Murciano de Investigación Biosanitaria (IMIB), Catholic University of Murcia (UCAM), Hospital Universitario Santa Lucía, Spain
- Muhammet Karaman – Department of Basic Sciences, Faculty of Engineering Architecture and Design, Bartın University, Turkey
- Devrim Pesen Okvur – Izmir Institute of Technology, Turkey
- Hanne Haslene-Hox – SINTEF, Norway
- Catarina A. Rodrigues – Instituto Português de Oncologia do Porto – IPO-Porto, Portugal
- Marta Maleszewska – Faculty of Biology, University of Warsaw, Poland

Organizing Committee

- Marta Maleszewska – Faculty of Biology, University of Warsaw, Poland
- Patrycja Ściślewska – Faculty of Biology, University of Warsaw, Poland

In summary, the 2nd IMMUNO-model conference served as a dynamic platform for advancing the frontiers of cancer immunotherapy, bringing together diverse perspectives and expertise to drive meaningful progress in the fight against cancer.



**Tuesday, May 13th
2025**

Arrival of attendees & Registration		8:30-9:00
Opening Session	Eva Martinez-Balibrea, Marta Maleszewska	9:00 - 9:15
Session 1	Chairs: Eva Martinez-Balibrea, Metka Novak	9:15-13:00
-In vitro models		
Keynote speaker	David Fernandez-Antoran	9:15 – 10:00
	<i>Immuno-Epithelioids: In vitro preclinical modelling of immunotherapy treatments</i>	
Invited Talk 1	José Alexandre Ferreira (on behalf of GlycoMatters)	10:00– 10:30
	<i>Glycoengineered Cells and GlycoAvatars: Unraveling the Glycocalyx and Cancer-Immune Cell Interactome for New Therapeutic Strategies</i>	
Invited Talk 2	Lucia Gabriele	10:30 – 11:00

**Tuesday, May 13th
2025**

	<i>3D Technology for Investigating Cancer-Immune System Crosstalk and Drug Testing</i>		
Coffee Break & Poster session		11:00	-
		11:30	
Session 1	Chairs: Vladimir Jurisic, Catarina Rodrigues		
-In vitro models			
Invited Talk 3	Natalia Marek-Trzonkowska <i>On the way to cellular therapy of non-small cell lung cancer - putting the puzzles together</i>	11:30 12:00	-
Invited Talk 4	Thomas Sommermann <i>Dynamic vascularized organ-on-chip models for studying immunotherapies and tumor immune interactions</i>	12:00 12:30	-
Short Talk 1	Emanuela Senjor <i>Evaluation of cathepsin V inhibition on glioblastoma stem cell proliferation and NK cell cytotoxicity from 2D to 3D perfused models on chip</i>	12:30 12:45	-
Short Talk 2	Silvia López Borrego <i>Effect of EVs Containing Different Alleles of MICA on NKG2D Modulation and Lytic Granule Mobilization in Natural Killer Cells</i>	12:45 13:00	-
Lunch break		13:00 13:45	-
Poster Session		13:45 14:45	-
Session 2	Chairs: Rosalinda Sorrentino, Marta Maleszewska	14:45- 18:15	
-In vivo models			
Keynote speaker	Bozena Kaminska <i>Dissecting the immune microenvironment of experimental brain tumors with single-cell and spatial transcriptomics.</i>	14:45 15:30	-
Invited Talk 1	Catarina Brito <i>3D culture strategies to model cancer microenvironment dynamics and therapeutic responses</i>	15:30 16:00	-
Invited Talk 2	Michał Mikula	16:00 16:30	-

**Tuesday, May 13th
2025**

	<i>Patient derived tumor models for functional precision oncology and cancer research</i>	
Coffee Break & Poster session		16:30 - 17:00
Session 2	Chairs: Vinton Chang, Doreen Lau	
-In vivo models		
TGRC report	Leticia Oliveira Ferrer <i>Patient task force</i> Denis Collins <i>Challenges in Modelling Immunotherapies: A TGRC Update.</i>	17:00 - 17:30
Short Talk 1	Jakub Godlewski <i>Predicting Immunotherapy Responses in Glioblastoma: An Integrated Evaluation of EVOV Vaccine-like Particles in Preclinical Models</i>	17:30 - 17:45
Short Talk 2	Tianren Shi <i>Determinants of immune infiltration in triple-negative breast cancer identified by multi-omic integration of large clinical cohorts</i>	17:45 - 18:00
Short Talk 3	Marco Barreca <i>Leveraging public pan-cancer transcriptomic data for immuno-oncology: systematic collection and a graphical tool for analysis</i>	18:00 - 18:15
WG1 & WG3 meeting		18:15 - 19:15
Social event-dinner at the restaurant "Warszawski Sen"		20:00 - 23:00

	Wednesday, May 14th 2025 (9.00 AM - 2.30 PM CET)	
Session 3	Chairs: Peter Rashkov, Marco Barreca	9:00 - 11:00
-In silico modelling		
Invited Talk 1	Johannes Textor <i>In silico simulations of cancer-immune interactions to aid clinical trial design and execution</i>	9:00 - 9:30
Invited Talk 2	Björn Rotter (GenXPro GmbH) <i>RNA from FFPE-tissue and liquid biopsies for clinical decision support-challenges and solutions</i>	9:30 - 10:00

**Tuesday, May 13th
2025**

Invited Talk 3	Pablo Conesa Zamora	10:00 10:30	-
	<i>Potential Utility of Induced Translocation of Engineered Bacteria as a Therapeutic Agent for Mounting a Personalized Neoantigen-Based Tumor Immune Response</i>		
Short Talk 1	Lucia Juhásiková	10:30 10:45	-
	<i>Exploring Immunotherapy in Pancreatic Ductal Adenocarcinoma: Insights from Organotypic Slice Cultures</i>		
Short Talk 2	Uzma Hasan	10:45 11:00	-
	<i>RImmunotherapy: Revolutionizing Cancer Treatment through Personalized Approaches</i>		
Coffee Break		11:00 11:30	-
WG 2 & WG4 meeting			
WG2 - room 1		11:30	-
WG4 - room 2		12:30	
Session 4			
	Chairs: Devrim Pesen Okvur, Jozef Dudas	12:30 14:00	-
-Ex vivo modelling			
Invited Talk 1	Gunes Esendagli	12:30 13:00	-
	<i>Migration and tumor-infiltration capacities of adoptive T cells: of mice and microchannels</i>		
Invited Talk 2	Nataliia Beztsinna	13:00 13:30	-
	<i>Patient-Derived Organoids and Fresh Ex Vivo Tissue Cultures as Translational Models for Immuno-Oncology Drug Testing</i>		
Closing remarks		13:30 14:00	-
Farewell Lunch		14:00 15:00	-

3.3. Webinars

1st IMMUNO-model webinar entitled Emerging Innovations for IMMUNO-model was streamed live on the ZOOM platform on December 19, 2024 at 2.00 CET.

The webinar consisted of two presentations and a question-and-answer session:

- Kaja Blagotinšek Cokan, Labena Slovenia, BIA Separations CRO labs *Unlocking New Frontiers in Spatial Transcriptomics with the 10x Genomics Xenium Platform*
- Nina Ogrinc, Center for Proteomics and Metabolomics, Leiden University Medical Center, The Netherlands

The webinar was moderated by dr. Barbara Breznik and Prof. Rosalinda Sorrentino, WG5 leader and co-leader, respectively

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Modelling immunotherapy response and toxicity in cancer

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IMMUNO-model webinar series presents:
06 Webinar Spatial Biology in Drug Discovery and Immunotherapy: exploring innovative technologies

December 19th 2024, at 2 - 3.30 pm CET
Live on ZOOM platform

Speakers

Kaja Blagotinšek Cokan, Labena Slovenia, BIA Separations CRO labs
Unlocking New Frontiers in Spatial Transcriptomics with the 10x Genomics Xenium Platform

Nina Ogrinc, Center for Proteomics and Metabolomics, Leiden University Medical Center, The Netherlands
How low can we go? Investigating tumor microenvironment with mass spectrometry imaging

Moderators

Barbara Breznik, National Institute of Biology, Slovenia
Rosalinda Sorrentino, University of Salerno, Italy

Registration
<https://forms.gle/FDfhqib5VizgHpea6>
Contact: barbara.breznik@nib.si

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2nd IMMUNO-model webinar entitled “*Computational aspects of Spatial Biology*” was streamed live on the ZOOM platform on April 14th, 2025 at 2.00 pm CET.

The webinar consisted of two presentations and a question-and-answer session:

- Maria Mantas and Heath Patterson, Advancing Tissue Biology Research with Weave Software for Spatial Multi-Omics

Eduardo Aranda, Spain, Deciphering crosstalk between cancer and immune cells in lung metastatic samples using spatial transcriptomics. Cancer Heterogeneity and Immunomics Group, IIS Aragón The webinar was moderated by Dr. Maurizio Callari and Rebecca Sanz, bioinformatics task force leaders of IMMUNO-model.

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IMMUNO-model webinar series presents:
7th Webinar
Computational Aspects of Spatial Biology

April 14th 2025, at 14.00-16.00 CET
Live on ZOOM platform

Speakers

Maria Mantas, PhD, Aspect Analytics NV, Belgium
Advancing Tissue Biology Research with Weave Software for Spatial Multi-Omics

Heath Patterson, PhD, Aspect Analytics NV, Belgium
Advancing Tissue Biology Research with Weave Software for Spatial Multi-Omics

Eduardo Aranda, PhD student, IISA, Zaragoza, Spain
Deciphering crosstalk between cancer and immune cells in lung metastatic samples using spatial transcriptomics

Moderator

Rebeca Sanz-Pamplona, PhD and Maurizio Callari, PhD

Register here:
<https://forms.gle/gn7p0KeQBwou7CB6>
Contact: barbara.breznik@nib.si and rsorrentino@unisa.it

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3rd IMMUNO-model webinar entitled “*CAR-T cell therapy: precision immunoengineering in modern oncology*” was streamed live on the ZOOM platform on June 10th, 2025 at 2.00 pm CET.

The webinar consisted of two presentations and a question-and-answer session:

- Ciprian Tomuleasa, Department of Hematology, Iuliu Hatieganu University of Medicine and Pharmacy Cluj Napoca, Romania, Designing anti-ROR1 CAR-T cells for mantle cell lymphoma
- Jordi Minguillón, Advanced Therapy Unit (CIEMAT-IIS-FJD) & Pediatric Oncohematology Unit (IdiPAZ CNIO), Spain, Clinical and translational research on CAR-T cell therapy for pediatric cancer

The webinar was moderated by Dr. Renè Winkler, Josep Carreras Leukaemia Research Institute, Spain.

4th IMMUNO-model webinar entitled “*Turning Collaboration into Funding: MSCA Doctoral Network Success from IMMUNO-model to ACHILLES*” was streamed live on the ZOOM platform on 4th July 2025 at 2.00 am CET.

The webinar provide a comprehensive overview of the MSCA Doctoral Network application process. Laia Lagunas outlined the key sections of the proposal, explaining the evaluation criteria, and offering practical guidance on building a strong consortium. Following this, Dr. Laura Belver presented a success story from the ACHILLES MSCA Doctoral Network, funded in the latest call and coordinated through the IMMUNO-model Working Group 4 on hematologic malignancies.

The webinar was moderated by Rosalinda Sorrentino, University of Salerno Italy, IMMUNO-model WG5 co-leader.

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IMMUNO-model webinar series presents
9th Webinar
Turning Collaboration into Funding: MSCA Doctoral Network Success from IMMUNO-model to ACHILLES
July 4, 2025, at 2.00 - 4.00 pm CET
Live on ZOOM platform

Speakers

Laia Lagunas, EU and International Strategic Grant Specialist
Strategy and Funding Department
Centre for Genomic Regulation (CRG),
Barcelona, Spain
Overview of the MSCA Doctoral Network application process

Laura Belver, Group Leader
Leukemia and Immuno-Oncology Group
Josep Carreras Leukemia Research Institute (IJC), Barcelona, Spain
A success story from the ACHILLES MSCA Doctoral Network

Moderator
Rosalinda Sorrentino, University of Salerno Italy,
IMMUNO-model WG5 co-leader

Register here:
<https://forms.gle/ZHUWVW2XWUfX098A>
Contact: barbara.breznik@nib.si and
rsorrentino@unisa.it

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the European Union

5th IMMUNO-model webinar entitled “*Natural Killer Cells in Action: From Bench to Bedside*” was streamed live on the ZOOM platform on September 30th, 2025 at 2.00 pm CET.

The webinar consisted of two presentations and a question-and-answer session:

- Mar Valés-Gómez, PhD, National Centre for Biotechnology (CNB), Spanish National Research Council (CSIC) *Studies on the activation of human anti-tumour NK cells*
- Antonio Pérez Martínez, MD, PhD, Pediatric Hemato-Oncology Department, La Paz University Hospital, Universidad Autónoma, CIBERER-ISCIH, IdiPAZ-CNIO Pediatric Onco-Hematology Clinical Research Unit, Madrid, Spain *An example of adoptive NK cell therapy in the clinic: Ex Vivo IL-15- NK Cells in Haploidentical Transplantation for Pediatric Leukemia*

The webinar was moderated by Barbara Breznik, National Institute of Biology, Slovenia and Rosalinda Sorrentino, University of Salerno, Italy.

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IMMUNO-model webinar series presents
10th Webinar
Natural Killer Cells in Action: From Bench to Bedside
September 30, 2025, at 2.00 - 4.00 pm CET
Live on ZOOM platform

Speakers

Mar Valés-Gómez, National Centre for Biotechnology (CNB), Spanish National Research Council (CSIC), Spain
Studies on the activation of human anti-tumour NK cells

Antonio Pérez Martínez, La Paz University Hospital, Universidad Autónoma Madrid, IdiPAZ-CNIO Pediatric Oncology, Spain
An example of adoptive NK cell therapy in the clinic: Ex Vivo IL-15- NK Cells in Haploidentical Transplantation for Pediatric Leukemia

Register here:
<https://forms.gle/eErF4PFEEFIQepk16>
Contact: barbara.breznik@nib.si and rsorrentino@unisa.it

Moderators
Barbara Breznik, National Institute of Biology, Slovenia
Rosalinda Sorrentino, University of Salerno, Italy

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EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

Partially funded by the European Union

4. Meetings

4.1. Core Group meetings

Core Group Meeting 1

- 8/11/2024
- Virtual
- 15 participants

Summary of decisions / relevant issues

1. Approval WPB for GP3

2. WGs Leadership and organizations

- Periodical follow-up with all WGs and TGRCCs

3. Grants

- Update on publishing new calls
- Update on VM grants

4. Update on GP3 planned activities

- Webinar 1
- WG2 workshop
- Annual Conference: program and setting up scientific committee

5. Update from WG5

Core Group Meeting 2

- 13/12/2024
- Virtual
- 15 participants

Summary of decisions / relevant issues

1. Update PR2: Eva

2. New VM related to Deliverable 14 of MoU: Publication of reports on performed translational studies using immunotherapy preclinical models on the IMMUNO-model website and social media profiles.

3. Update on nearest GP3 planned activities:

- Webinar 1 on 19/12/2024 (Barbara & Rosalinda)
- Webinar 2 on 17/02/2025 (Barbara & Rosalinda)
- WG2 workshop on 06-07/03/2025 (Emmet)
- Annual Conference 13/14/15 May 2025: (Marta)

4. Ongoing Issues:

- Patient Associations Follow-up (Leticia)
- Knowledge Hub (Emanuela/Leticia)
- Special Issues (Laura and Maurizio & Marleen)
- Journal articles by each WG (all WG Leaders): all WGLs to give the topics

5. Grants: Philippe

- Update on publishing new calls
- Update on VM Grants
 - Proposal by Yanis Saidani re Educational Videos, and VM
 - Emanuela / Maurizio & Rebeca
 - WG5

6. Update from WG5: Barbara & Rosalinda

- a. Taskforce
- b. Various issues (save the date WG2 Workshop, Annual Conference, Grants)

7. Updates from TGRCs: all TGRC members

- a. Young Researchers and Innovators (YRIs) taskforce (Catarina)

8. Other business/communications

Core Group Meeting 3

- 17/01/2024
- Virtual
- 13 participants

Summary of decisions / relevant issues

1. Ideas: Eva

- Mentoring scheme for YRI
- Set-up YRI taskforces within each WG that feed into the YRI network

2. Updates from TGRCs: all TGRC members

- Young Researchers and Innovators (YRIs) taskforce (TGRC member)

3. Update from WG5: Barbara & Rosalinda

- Update Meeting with Boutik
- Search tool on IMMUNO-model webpage
- Annual Report GP3: deadline 24/01/2025
- Dissemination checklist
- Webinar 1 on 19/12/2024 (Barbara & Rosalinda): feedback
- Various issues (save the date WG2 Workshop, Annual Conference, VM)

4. Update on new VM related to Deliverable 14 of MoU: Publication of reports on performed translational studies using immunotherapy preclinical models on the IMMUNO-model website and social media profiles.

- Gianmarco to give feedback
- 5. Update on nearest GP3 planned activities: a. Webinar 2 on 17/02/2025 (Barbara & Rosalinda): topic and speakers?
- WG2 workshop on 06-07/03/2025: (Emmet) c. Annual Conference 13/14/15 May 2025: Program and list of speakers, topics, webpage, permission to start dissemination (Member of Scientific Committee)

6. Ongoing Issues:

- Patient Associations Follow-up (Leticia)
- Knowledge Hub (Leticia)
- Special Issues (Laura and Maurizio & Marleen) d. Journal articles by each WG (all WGLs)

7. Grants: Philippe

- a. Update received applications
- b. Update on VM Grants
 - Emanuela / Maurizio & Rebeca
 - WG5

8. Other business/communications

Core Group Meeting 4

- 14/02/2024
- Virtual
- 14 participants

Summary of decisions / relevant issues

1. Admin updates: (Eva)

- Changes in WG Leadership positions
- PR2 update
- Daniel LINDEGGER
- Open Research Europe (Open Access publishing platform for research): (Eva) Tuesday 4 March from 11h-12h30 CET

2. Update on nearest GP3 planned activities:

- Webinar 2 on 17/02/2025: (Barbara & Rosalinda)
- WG2 workshop on 10-11/04/2025: (Emmet)
- Annual Conference 13/14/15 May 2025: (Marta)

3. Ongoing Issues:

- Patient Engagement Task Force: (Leticia)
- Knowledge Hub Taskforce: (Emanuela/Leticia)

4. Publications:

- Journal articles by each WG: updates from WG1, 2 and 3
- 5. Grants: Philippe

- Update received applications b. STSM grantees: to ask if there was a positive outcome from their STSM (collaboration, an article, a job, a project)
5. Update on VM Grants
 - WG5: Patricia Gonçalves
 - Report on ‘Publication of reports on performed translational studies using immunotherapy preclinical models on the IMMUNO-model website and social media profiles.’ (Gianmarco)
 6. Update from WG5: (Barbara & Rosalinda)
 - Search tool on IMMUNO-model webpage
 - Review of IMMUNO-model web page
 - Annual Report GP2
 7. Updates from TGRCs:
 - International Day for Women and Girls in Science (11 February): (Catarina)
 - YRIs taskforce proposal for conference: (Catarina)
 - Review of membership of IMMUNO-model: (Denis)
 - Report form polls results of workshop in Dublin: (Denis)
 8. Other business/communications

Core Group Meeting 5

- 14/03/2025
- Virtual
- 17 participants

Summary of decisions / relevant issues

1. Admin updates: (Eva)
 - Changes in WG Leadership positions
 - Eva welcomed the new WG Leaders and co-Leaders: Emanuela Senjor as WG1 Leader, Lukasz Skalniak as WG1 co-leader, Doreen Lau as WG2 co-leader
 - PR2 update
2. Update on nearest GP3 planned activities:
 - Webinar 2: (Barbara & Rosalinda)
 - WG2 workshop on 07-08/04/2025: (Emmet)
 - Annual Conference 13-14 May 2025: (Marta)
3. Ongoing Issues:
 - Patient Engagement Task Force: (Leticia)
 - Knowledge Hub Taskforce: (Emanuela)
4. Publications: a. Journal articles by each WG: updates from WG1, 2 and 3
5. Grants: Philippe
 - Update received applications
 - VM: Report on ‘Publication of reports on performed translational studies using immunotherapy preclinical models on the IMMUNO-model website and social media profiles.’ (Gianmarco)
6. Update from WG5: (Barbara & Rosalinda)
 - Search tool on IMMUNO-model webpage
 - Review of IMMUNO-model web page
 - Annual Report GP2

7. Updates from TGRCs:

- Feedback on International Day for Women and Girls in Science (11 February): (Catarina)
- YRIs taskforce proposal for conference: (Catarina)

8. Other business/communications

Core Group Meeting 6

- 11/04/2024
- Virtual
- 13 participants

Summary of decisions/relevant issues

1. Admin updates: (Eva)

- PR2 update
- GP4 activities
- Allocation of extra funds (3K from Workshop in Bergen) to:
 - Consumables for Training School (1K)
 - Additional reimbursements for the YRI Meeting in September (reduced to 1 day, 18 reimbursements >>> funds allocated to AC)

2. Update on nearest GP3 planned activities:

- Webinar 2: (Barbara & Rosalinda)
- WG2 workshop on 07-08/04/2025: (Emmet)
- Annual Conference 13-14 May 2025: (Marta) d. Training School in Coimbra: (Rui) e. YRI Conference: (TGRCs)

3. Ongoing Issues:

- Patient Engagement Task Force: (Leticia)
- Knowledge Hub Taskforce: (Emanuela)

4. Publications:

- Journal articles by each WG: updates from WG1, 2 and 3
- 5. Grants: Philippe a. Received applications and budget (Philippe)
- Grants to USA: restrict the reimbursement of travel
- Stricter on topics of conferences d. VM: Report on 'Publication of reports on performed translational studies using immunotherapy preclinical models on the IMMUNO-model website and social media profiles.' (Gianmarco)

6. Update from WG5: (Barbara & Rosalinda)

- IMMUNO-model members database
- Updated IMMUNO-model webpage

7. Updates from TGRCs:

8. Other business/communications

Core Group Meeting 7

- 23/05/2025
- Virtual
- 12 participants

Summary of decisions / relevant issues

1. Annual Conference 13-14 May 2025

- Marta to give an update of how the Conference went
- Each WG to summarize how their meeting went and any key points / actions to follow up 2. Admin updates: (Eva)

2. Summary GP4 activities

- Workshop in Madrid (5-6 March 2026)
- Annual Conference in Slovenia (May 2026)
- Workshop in Barcelona
- CG meeting in Brussels (January 2026)
- Grants vi. Scientific publication in Open Access
- Patient Taskforce Videos
- To find volunteer or issue a VM call in GP4 to write a Report on 'Publication of reports on performed translational studies using immunotherapy preclinical models on the IMMUNO-model website and social media profiles.'
- Budget Update (Melanie)
- Daniel Lindegger: Melanie sent an email to CG with a written update

3. Update on nearest GP3 planned activities:

- Training School in Coimbra: (Rui)
- YRI Conference: (Catarina)
- Next Webinars (Barbara / Rosalinda)

4. Ongoing Issues:

- Patient Engagement Task Force: (Leticia)
- Knowledge Hub Taskforce: (Emanuela)
- To discuss actions to incentivise the submission of protocols in order to increase numbers

5. Publications:

- Journal articles by each WG: updates from WG1, 2 and 3
- WGLs to collect all the proposals and decide how many can be paid with IMMUNOmodel funds in the last GP (Sweta / breast cancer taskforce planning to write 3 review papers)

6. Grants: Philippe

- Update received applications b. Summary of new call and inclusion of 2 new criteria
- Prioritization of conferences celebrated in COST Full member countries ii. Only one application per group/conference will be allowed

7. Update from WG5: (Barbara & Rosalinda)

- Webinar of 14/04/2025
- Webinar 20/05/2025
- Update on Repository of documents (VM)
- Website and search tool (issue mentioned several times at AC)
- News letter

8. Updates from TGRCs:

9. Other business/communications

Core Group Meeting 8

- 20/06/2024
- Virtual
- 14 participants

Summary of decisions / relevant issues

1. Administration: (Eva)

- Discussion of received proposals for GP4: (Eva)
- Approval of activities and budget for GP4: (Eva)
- Approval of increasing LOS Grant for the YRI meeting: (Melanie)
- Update from Gianmarco regarding VM call in GP4 to write a Report on 'Publication of reports on performed translational studies using immunotherapy preclinical models on the IMMUNO-model website and social media profiles.' i. To issue call?
- Update issue with Daniel Lindegger: (Eva/Melanie)

2. Update on nearest GP3 planned activities:

- Training School in Coimbra: (Rui)
- YRI Conference: (Catarina)
- CG meeting 19/09/2025
- MC meeting 02/10/2025
- Date for AC in May 2026

3. Ongoing Issues:

- Patient Engagement Task Force: (Leticia)
- Knowledge Hub Taskforce: (Emanuela)
- WG meetings and updates

4. Publications:

- List of proposals for reviews/articles for GP4
- Journal articles by each WG: updates from WG1, 2 and 3.

5. Grants: (Philippe) a. Update received applications and expenditure

6. Update from WG5: (Barbara & Rosalinda)

- Update on Webinar of 10/06/2025 a. Next Webinars
- Update on Repository of documents (VM)
- Update website and search tool
- Newsletter

7. Updates from TGRCs:

- Issue of companies as members / search for members
- 1 page report
- Direction of TGRCs and any events in GP4

8. Other business/communications

Core Group Meeting 9

- 19/09/2025
- Virtual
- 14 participants

Summary of decisions / relevant issues

1. Administration: (Eva)

- Cut-off date for new members to join IMMUNO-model
- Update on GP4 WBP: Budget, list of activities and process of validation
- CG meeting in January 2026 – final date 22/01/2026 (10-16hrs)
- AC 2026 in Slovenia:
- Day 1 20/05/2026: CG meeting in the morning and start of the AC after lunch
- Day 2 21/05/2026: full day of AC
- Day 3 22/05/2026: half day of the AC and half day TGRC workshop (gender focused)
- Scientific Committee: WGLs to send Barbara candidates from WGs (1 per WG) by 26/09/2025
- Attendance at training for YRI in Brussels (Catarina and/or Doreen)

2. Update on nearest GP3 planned activities:

- Reporting on Training School in Coimbra: (Rui)
- YRI Conference: (Catarina)
- MC meeting 02/10/2025: who will present and content of presentations

3. Ongoing Issues:

- Patient Engagement Task Force: (Leticia)
- Knowledge Hub Taskforce: (Emanuela)
- WG meetings and updates.
- WG1: update on Teams initiative
- WG2: update on protocols and publications, possible webinar by INNOVOTION

4. Publications:

- List of proposals for reviews/articles for GP4 i. Received so far: Maria Julia Lamberti, any other?
- Journal articles by each WG: updates from WG1, 2 and 3.

5. Grants: (Philippe) a. Update received applications and expenditure

6. Update from WG5: (Barbara & Rosalinda) – postponed to October CG Meeting

7. Updates from TGRCs:

- Meetings
- Matchmaking-style event and gender-focused event for GP4

8. Other business/communications

Core Group Meeting 10

- 10/10/2025
- Virtual
- 15 participants

Summary of decisions / relevant issues

1. COST Sustainability and CIG Grant

- Eva to present and assign options to investigate for the continuity of IMMUNO-model after funding
- Melanie to present the CIG rules and timeline

2. Administration

- WG Leaders to present options regarding if to close membership applications in GP4

- Unspent budget: discuss the two options identified during MC meeting
3. Update on GP3 activities
 - Training School in Coimbra: (Rui)
 4. Update from WG5: (Barbara & Rosalinda)
 - Update on Webinar of 30/09/2025
 - Next Webinars
 - Update on Repository of documents (VM)
 - Update website and search tool
 - Newsletter
 5. Other business/communications

5.1. MC meetings

Management Committee Meeting 1

- 02/10/2025
- Virtual
- 28 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) Monitoring and Reporting to the COST Association (PR2)
 - b) Core Group: report from the Core Group, including delegated decisions
 - c) Action Membership: New Specific Organisations and COST Members represented in the MC
 - d) Action Participation: WG membership and applications, New MC Members/Observers and provisional substitution
 - e) Action management: structure, leadership positions and other supporting roles
 - f) Budget status: summary from the Grant Holder: Melanie Giorgi, Grant Holder Manager (10 minutes)
 - g) 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: 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: (15 minutes each, 105 minutes in total)
 - i. Emanuela Senjor, WG 1 Leader & Marleen Ansems, WG 3 Leader
 - ii. Emmet McCormack, WG 2 Leader
 - iii. Laura Belver, WG 4 Leader
 - iv. Denis Collins, TGRCs
 - v. Emanuela Senjor, Knowledge Hub
 - vi. Leticia Oliveira-Ferrer, Vice-Chair, Patient Engagement Task Force
 - d) Progress of WG 5 and Science Communication Plan: Barbara Breznik, WG5 Leader (15 minutes)
4. Planning a) GP4 Budget and Activities: Eva Martinez-Balibrea, Chair (5 minutes) 5. AOB: Q&A (10 minutes)

5. Closing Closing

5.2.5.1. *WG meetings*

4.3.1 WG1 meetings

Joint Meetings WG1 and WG3

WG1/3 meeting 7: December 5th 10.00-11.00

Agenda:

- Intro by Marcella Massimini
- Intro by Sergio Alonso Utrilla
- Intro by Ronald Terrazas Mallea
- Intro by Vijay K. Ulaganathan
- Update tumor/biomarker specific taskforces by Marleen Ansems

WG1/3 meeting 8: February 13th 2025: 10.00 – 11.00

During this meeting, Emanuela Senjor provided an update on the Immuno-Model Knowledge Hub. It is a dedicated platform for the collection, sharing and dissemination of protocols relevant to Immuno-oncology research. She explained how this hub works and how members could contribute to or benefit from it.

WG1/3 meeting 9: during the Annual Warsaw Congress (see agenda annual meeting)

Emanuela Senjor provided an update on the knowledge hub and encouraged members to submit protocols

WG1/3 meeting 10: June 10th 2025: 16.00 – 17.00

5)1) Updates from the following tumor-specific task forces:

- Breast cancer task force: Sweta Rani
- Head and Neck cancer task force: Christina Sakellariou
- Brain cancer task force: Vinton Cheng
- Skin cancer task force: Vijay Ulaganathan

5)2) IMMUNO-model Knowledge Hub <https://osf.io/nc89k/>

5)3) Online protocol troubleshooting sessions:

5)4) IMMUNO-model members profile

5) Joint papers submissions

WG1/3 meeting 11: September 26th 2025: 13.00 – 14.00

2)1) Welcome

2) Introduction to the Teams channel protocol exchange: IMMUNOmodel Method CoLab

3) Task force updates

In addition, outside these general joint WG1/WG3 several more (smaller) specific taskforce meetings were held:

- Computational task force meetings
- Tumor specific task force meetings
- Protocol database meetings:

WG1 Task Force:

The main goals of WG1 is to foster the development and optimization of in vitro and *ex vivo* models for immuno-oncology research, and to promote know-how sharing, protocol standardization, and the creation of user guidelines on these models. Towards these goals, the specific research objectives of WG1 Task Force will focus on:

- 3)1) Establish basic protocols for immunotherapy response evaluation
- 3)2) Identify readout strategies and biomarkers
- 3) Determine culture durability
- 3)4) Expand the number of tumor types in which in vitro and *ex vivo* immunotherapy models can be applied
- 3)5) *In vivo* and *ex vivo* immunotherapy model (Neoantigens and cell-based therapy)

4.3.2 WG2 meetings

WG2 meetings	Date	Virtual /in person	Number of participants	Summary of decisions / relevant issues
WG2 meeting 1	Mar 27 th 2025 14-15:00 CET	Virtual	21	<ul style="list-style-type: none"> • Update of IMMUNO-model and WG2 activities • Introduction of Dr. Doreen Lau • Definition of content for Workshop
WG2 meeting 2	Apr 7 th 2025 15-16:00 CET	Hybrid	17	<ul style="list-style-type: none"> • Meeting held in conjunction with Workshop in Bergen. • Definition of task forces and topics for review writing • Contributions to knowledge hub
WG2 . Meeting 3	June 26 2025 11-12:00 CET	Virtual	2	<ul style="list-style-type: none"> • Coordination meeting between WG2 leaders McCormack and Lau
WG2 meeting 4	July 2025 11-12:00 CET	Virtual	12	<ul style="list-style-type: none"> • Inclusion criteria for review writing • Organization of task forces • Definition of task group leaders • Definition of topics
WG2 meeting 5	July 2025 11-12: CET	Virtual	7	<ul style="list-style-type: none"> • Inclusion criteria for review writing • Organization of task forces • Definition of task group leaders • Definition of topics
WG2 meeting 6 WG2 meeting 7 WG2 meeting 8 WG2 meeting 9 WG2 meeting 10 WG2 meeting 11 WG2 meeting 12	Aug 21 Sept. 10 Oct. 15 Oct. 29 Nov. 12 Nov. 28 Jan. 14	Virtual	6	<ul style="list-style-type: none"> • Discussing and coordinating the writing task forces on the review manuscripts • Coordination of task group leaders on Commentary for Nature Immunology

				<ul style="list-style-type: none">• Drafting and discussion of commentary content.
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Publications from WG2 in GP3:

- Colarusso C., et al. Role of the AIM2 Inflammasome in Cancer: Potential Therapeutic Strategies. *Biomedicines*. 2025 Feb. 6; 13(2) :395 PMID: 40002808
- Safont M.M., et al. protocol for the development of a bioluminescent Aml PDX mouse model for the evaluation of CAR T cell therapy. *STAR Protocols*. 2024 Dec. 20; 5(4) 103522 PMID: 39673705
- Lau D, et al. Imaging antigen presentation and presentation in cancer. *Immunother Adv*. 2025 Feb 4; 5(1) Itaf002 PMID: 40265075

4.3.3 WG4 meetings

WG4 meeting 1 (virtual): May 14th 2025

Agenda

- Updates on the Training School on “*Liquid Biopsies in Hematological Malignancies – identification of immunotherapy biomarkers*”
- Updates on the ACHILLES MSCA Doctoral Network – “*Advancing in the Challenge of Improving Lymphoma and Leukemia Survival*”
- Updates on the Special Issue in *Frontiers of Immunology*: “*Cellular Immunotherapy: Transforming Cancer Treatment*”

Training School on “*Liquid Biopsies in Hematological Malignancies – identification of immunotherapy biomarkers*”

Organized by WG4 members Ana Bela Sarmiento-Ribeiro, Ana Cristina Gonçalves, Raquel Alves, M. Helena Vasconcelos, and WG4 co-leader Rui Bergantim, this training school explored the emerging role of liquid biopsies in haematological malignancies, with a particular focus on identifying biomarkers for immunotherapy. Held at the Faculty of Medicine in the University of Coimbra (Portugal), the three-day event brought together a diverse group of researchers and trainers to share and apply cutting-edge techniques.

A total of 32 participants attended, including 21 trainees selected from 43 applicants representing 11 countries. The group comprised PhD students, postdoctoral fellows, and researchers, with strong representation from Young Researchers and Innovators.

The program combined theoretical sessions with hands-on laboratory activities, fostering interactive learning and practical skill development. Topics included:

- Diagnostic and prognostic applications of liquid biopsies
- Monitoring disease progression and response to therapy
- Protocol optimization and laboratory techniques

The multidisciplinary backgrounds of both trainers and trainees enriched discussions, offered varied perspectives, and promoted collaborative problem-solving.

Special Issue in Frontiers of Immunology: “Cellular Immunotherapy: Transforming Cancer Treatment”

This Special Issue in Frontiers in Immunology was promoted by WG4 and guest-edited by WG4 leader Laura Belver. It highlights recent advances in the development and application of cell-based immunotherapies for cancer, providing an overview of clinical implications, current applications, and ongoing studies aimed at new therapeutic avenues, particularly for relapsed or refractory cases and cancers with poor prognoses. The issue also addresses current challenges in designing, developing, and applying novel cellular immunotherapies, with a focus on the experimental approaches and preclinical models used for their evaluation. It features four articles from WG4 members on CAR-T, CAR-NK, CAR-macrophages, and TILs, led by Ciprian Tomuleasa, Margareta Correia, Ginés Luengo, and Árpád Szöör.

Link: <https://www.frontiersin.org/research-topics/66551/cellular-immunotherapy-transforming-cancer-treatment>

4.3.5 WG5 meetings

Name	Date	Virtual/in person	Number of participants	Summary of decisions / relevant issues
WG5 meeting 1	November 12th, 2024 1-1.30 pm CET	Virtual	6	<ul style="list-style-type: none"> • Update of IMMUNO-model and WG5 activities • Taskforces-active involvement • Other, discussion
WG5 meeting 2	January 14th, 2025 1-2 pm CET	Virtual	7	<ul style="list-style-type: none"> • Update of IMMUNO-model and WG5 activities • Taskforces-active involvement • Instagram account updates • Other, discussion
WG5 meeting 3	February 18th, 2025 1-2 pm CET	Virtual	7	<ul style="list-style-type: none"> • Update of IMMUNO-model and WG5 activities • Taskforces-active involvement • Other, discussion
WG5 meeting 4	March 19th, 2025 1-2 pm CET	Virtual	17	<ul style="list-style-type: none"> • Update of IMMUNO-model activities • Dissemination and Communication activities in WG5 • Questions, discussion
WG5 meeting 5	April 16th, 2024 1-2 pm CET	Virtual	7	<ul style="list-style-type: none"> • Update of IMMUNO-model and WG5 activities • Taskforces – active involvement • Questions, discussion
WG5 meeting 6	May, June, July, September, October 2025 meetings	Virtual	2	<ul style="list-style-type: none"> • Update of IMMUNO-model and WG5 activities • Taskforces – active involvement • Questions, discussion

Dissemination and Communication Plan for the GP4 will include all the activities performed during GP3, including podcasts, webpage tools for member and non-members to find collaborators in an easy-to-use manner. These activities in collaboration with the other WGs will allow to pursue the IMMUNO-model goal to become a network of reference in the field of immunotherapy research.

6. Mobility Grants




An initial budget of 26200€ was proposed for GP3, to support up to 4 Short-term Scientific Mission (STSM) applications and some ITC, VM, and DC grants.. The new type or grant (YRI) was also supported.



A total of 5 STSM applications, 1 ITC, 3 VM and 4 YRI were approved for this grant period. Some applications were rejected.

The global budget spent is shown in the following table.


	Budget	Spent	under eval	Remaining
STSM	15700	14570	0	1130
VM	4500	4500	0	0
ITC Conference	1500	502	0	998
Dissemination Conference	1500	0	0	1500
YRI	3000	5540	0	-2540
TOTAL STSMs	26200	25112		1088

Below are the applicants for STSMs grants:

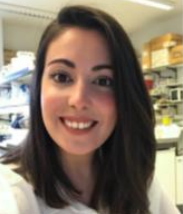
	<p>Evaluation of novel Chimeric Antigen Receptor T-cell (CAR-T) therapies in mouse models of Juvenile Myelomonocytic Leukemia (JMML)</p> <p>Main achievements: Learning about up-to-date techniques of CAR-T designs to screen out from further experimental testing; Reproducing their optimized protocol to efficiently produce and expand mouse CAR-T cells prior to <i>in vivo</i> use; Testing our JMML-specific CAR-T designs using the techniques abovementioned.</p>	€2670.00	1 month 01/10/2025 27/10/2025
	<p>Evaluating Immune-Related Markers on plasma Extracellular Vesicles from cancer patients: A Flow Cytometry Approach to Search for Biomarkers of Immunotherapy Response</p> <p>Main achievements: the optimization of high-resolution FC protocols for EV profiling; the acquisition of advanced technical skills; the preliminary generation of relevant EV marker data</p>	€2950.00	1 month 17/05/2025 15/06/2025
	<p>Establishment of an immunocompetent mouse model of glioblastoma resection for the evaluation of a novel biomaterial-based cancer vaccine</p> <p>Main achievements: GBM tumor induction and tumor resection surgeries on mice were successfully achieved; establishing an animal model of GBM that: i) had a fully competent immune system, ii) replicated the disease pathophysiology and iii) could undergo surgery to create a tumor resection cavity, which enables testing of novel cancer vaccines locally.</p>	€950.00	1 week 01/04/2025 08/04/2025

	<p>Advancing Colorectal Cancer Immunotherapy: Integrating Patient-Derived Organoid Models with Nanomedicine and Immune Modulation</p>	<p>€4000.00</p>	<p>1.75 months 10/03/2025 30/04/2025</p>
	<p>Next-Generation mRNA Vaccines for Lung Cancer: Glycolipid Functionalization of Extracellular Vesicles to Target Dendritic Cells</p>	<p>€4000.00</p>	<p>2.75 months 10/02/2025 30/04/2025</p>

Below are the applicants for ITCs grants:


	<p>Conference: Updates on Genetics and Epigenetics of Haematological Malignancies: From Knowledge to Applications 20/11/2024 to 22/11/2024 Outcomes: opportunity to present my team’s research work; questions from the audience; meeting several people leading to collaborative work: 1) Maria Luisa Toribio (CMSO, Madrid; grant application Fundacio La Caixa, Barcelona); 2) Laura Belver (IJC, Barcelona) and Andreas Lennartsson (KI, Stockholm), for establishing an EU Marie Skłodowska-Curie Doctoral Network, which has been awarded in April 2025; 4) scientific discussions (Ana Bigas, IJC, Barcelona), Jan Cools (KU Leuven) and Marcus Buschbeck (IJC, Barcelona), for future collaborations in projects, conference organization or doctoral juries.</p>	<p>€502.00</p>	<p>3 days 20/11/2024 22/11/2024</p>
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Below are the applicants for YRIs grants:

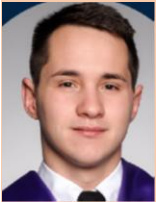
	<p>STAT3 and STAT5 in MDS to AML transformation Conference: “Updates on Genetics and Epigenetics Haematological Malignancies: From Knowledge Applications”, 20/11/2024 to 22/11/2024 Outcomes: significant impact on my career and has great enhanced my visibility within the community; attending informative lectures on advancements across various areas hematological malignancies and development immunotherapeutic regimens; interest of several participants with valuable feedback from leading scientists; connections with industry professionals and engage in discussions that introduced me to cutting-edge</p>	<p>€1100.00</p>	<p>20/11/2024 22/11/2024</p>
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	<p>From Cell Lines to Organotypic Slice Cultures: A 3D Platform for Testing Epigenetic and Immune-Based Therapies in Pancreatic Ductal Adenocarcinoma Conference : Goodbye Flat Biology: <i>ex vivo</i> to <i>in vivo</i> models of can 23/09/2025 to 25/09/2025 Outcomes: enriching talks and significant takeaways was the extens focus on <i>vivo</i> organotypic slice cultures (OTSCs) corresponding recent work with compared to conventional 2D monolayer cultu many presentations covered OTSCs, which was a huge bene networking sessions and poster sessions provided opportunities interact with researchers. My participation was enriching and inspiri and several new contacts may lead to future collaborations.</p>	<p>€830.00</p>	<p>22/09/2025 24/09/2025</p>
	<p>Nanoparticulate TLR4-agonist/Saponin Adjuvanted Peptide Vaccines for Melanoma Conference: 19th International Congress of Immunology (IUIS 2025) 17/08/2025 to 22/08/2025. Outcomes: exceptional opportunity to engage with pioneering scientists in immunology (Nobel Laureate Prof. James P. Allison) about immune checkpoint inhibitors and cancer immunotherapy; establishing international connections and explore future collaborations; present my own research and engage in fruitful discussions with leading experts (CureVac; Prof. Yoshihiro Watanabe); interactions with industrial partners.</p>	<p>€1510.00</p>	<p>17/08/2025 22/08/2025</p>
	<p>“Exploring the Potential of Mycobacteria-derived Components in Anti-cancer Lymphocyte Activation” and “Understanding PD-L1 Regulation and Secretion: Insights to Improve Immune Checkpoint Inhibitor Therapies” Conference: 25th Annual Meeting of the Federation of Clinical Immunology Societies (FOCIS 2025) Outcomes: connect with leading experts in innate immunity and NK cell biology (Dr. Megan Cooper, Washington University in St. Louis; Dr. Katy Rezvani, MD Anderson Cancer Centre; Prof. Eric Vivier, Innate Pharma & Aix-Marseille University); participation in the Cancer Immunology Advanced Course; visibility gained from presenting at FOCIS202; initiated discussions with researchers and professionals from CDI Labs, Biologend, and Standard Biotools.</p>	<p>€2100.00</p>	<p>24/06/2025 27/06/2025</p>

Below are the applicants for VMs grants:

	<p>Precision Oncology models for Solid Cancer Immunotherapy: A Systematic Review Outputs: production of a comprehensive dataset of <i>in vitro</i> and <i>ex vivo</i> preclinical cancer-immunotherapy models, standardised, sharable preclinical model resources. Robustness and potential utility of the data presented at “3rd IMMUNOmodel TGRC Workshop: Young Researchers and Innovators on Immunotherapies – The Future is Now”, (IPO Porto, 25 September 2025). Review of preclinical immunotherapy models, establishment of a “master dataset” style resource by extensive literature retrieval, data extraction, harmonisation and quality checking, and developed tool-supported infrastructure necessary</p>	<p>€1500.00</p>	<p>01/09/2025 15/10/2025</p>
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for dataset construction. A manuscript will be submitted in the near future; Establishment of research partnership between the grantee and University of Birmingham (UK).



Eduardo Jose Aranda

A shiny app to easily interrogate transcriptomics data from cancer patients treated with immunotherapy
Outputs: the development of a standardized browser to allow the researchers accessing to transcriptomics data of oncologic patients and pre-clinical models treated with immunotherapy; the development of a standardized and reproducible method for analysing omics datasets; Online meetings to improve the user interface and promote collaborations between COST members in the development of the database; All the phases documented to ensure taskforce members can easily use the shiny app and produce queries to search and analyse the data easily.

€1500.00 01/07/2025
17/10/2025

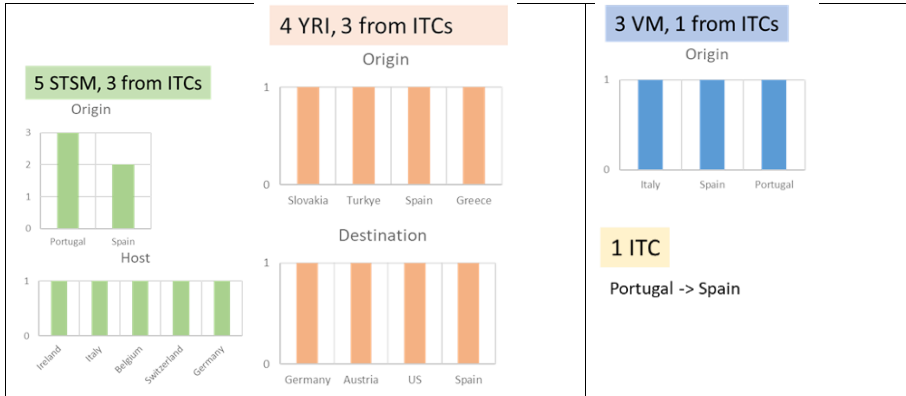


Patricia Gonçalves

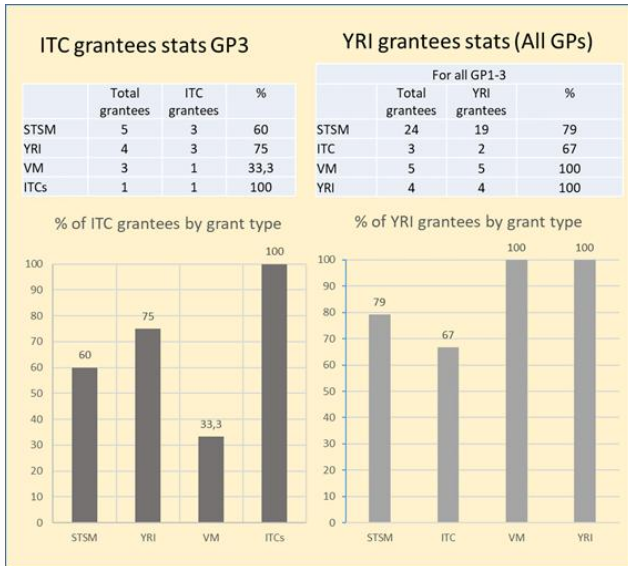
Uploading Data to an Open Access Repository
Outputs: Storage in an open access repository of the data produced by Action within the pre-existing “IMMUNO-model Knowledge Hub”, keeping all the information in one specific place contributing to the communication between members; reinforcing the COST Action's commitment to community outreach and the impact on patient care. Uploading all new data produced until the end of the Action is planned.

€1500.00 01/03/2025
31/08/2025

Some statistics for mobility grants



Over all types of grants the gender balance was 67% female and 33% male. The participation of young researchers in GP3 grant applications was high, and even higher if considering GP1 to GP3 applications.



6.7. Dissemination and Communication Activities

6.1.7.1. Webpage and logo

The IMMUNO-model webpage and logo was established- <https://www.immuno-model.eu/> during GP2 and further ameliorated during GP3 In addition, a “find for partner” tool was established on the webpage to easily find partners for collaborations according to keywords. The website will be active for the duration of the Action and a further two additional years. The website is updated regularly by WG5, the Action Leader and Boutik Studio. The webpage contains all relevant information and news for CA members and other visitors of webpage. It will be further improved to have an easy-to-use search tool to facilitate collaborations according to the researchers’ needs. A google form link is being created to be sent to the members.

6.2.7.2. Social media platforms

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

- X: [@immunomodel](https://twitter.com/immunomodel) / X (twitter.com)
- LinkedIn: www.linkedin.com/company/cost-action-ca21135-immuno-model/
- Youtube channel: <https://www.youtube.com/@IMMUNOModelCOSTAction>
- Instagram: <https://www.instagram.com/immunomodel/>

6.3.7.3. Promotional materials

- Industry flyer and letterhead template



IMMUNO-model www.immuno-model.eu

The purpose of IMMUNO-model

IMMUNO-model is a vibrant and diverse network, continually seeking new research partners to collectively elevate the quality and impact of immunotherapeutic research across Europe.

The role of SMEs in IMMUNO-model

Immuno-model aims to facilitate the transfer of knowledge between basic, translational, and clinical investigators, and with SMEs.

SMEs bring a key perspective, both by defining the modelling needs of industry, and by delivering innovative technologies and solutions for modelling of immunotherapy.

We seek SMEs that would like to be an active part of the scientific network of Immuno-model and work together to develop and implement preclinical models for immunotherapy.

What is IMMUNO-model COST-action

COST Action IMMUNO-model CA21135 aims to:

- Foster research and innovation in the field of preclinical immuno-oncology models.
- Advance the treatment of cancer patients.
- Improve patients' outcomes and quality of life.

Our work is organized through five working groups (WG) covering:

- WG1** In vitro and ex vivo cancer immunotherapy models
- WG2** In vivo cancer immunotherapy models
- WG3** Solid tumors
- WG4** Hematologic tumors
- WG5** Communication, events & partnering with industry

What do you get from becoming a member

Access to a diverse network of > 200 researchers, clinicians and industry professionals.

Participation and visibility in Working group and annual meetings and access to scientific exchanges through mobility grants.

Access to the Immuno-model protocol collection, and opportunity for open dissemination of own developed technologies and protocols.

An arena to establish and participate in grant collaborative initiatives within the network.

How to become a member

To join us, and for more information, scan the QR Code!

This flyer is based upon work from COST Action IMMUNO-model CA21135, supported by COST (European Cooperation in Science and Technology) as a leading agency for researchers and innovator networks. COST helps connect researchers, service providers and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.

COST EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

Funded by **THE EUROPEAN UNION**

- Various Flyers for the dissemination of IMMUNO-model and for grants calls <https://www.immuno-model.eu/newss/immuno-model-flyers-are-out/>

- Power Point Template



IMMUNO-model
Modelling immunotherapy response
and toxicity in cancer

Insert Title Here

Insert Subtitle Here


IMMUNO-model COST Action CA21135



cost
EUROPEAN COOPERATION
IN SCIENCE & TECHNOLOGY



Powered by
the European Union




IMMUNO-model
Modelling immunotherapy response
and toxicity in cancer


Insert Title Here

Insert Subtitle Here


IMMUNO-model COST Action CA21135



cost
EUROPEAN COOPERATION
IN SCIENCE & TECHNOLOGY



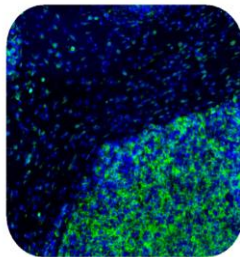
Powered by
the European Union



Description of the Action



The COST
Action **IMMUNO-model** CA21135 aims to
foster research and innovation in the field
of preclinical immuno-oncology models
with the ultimate goal of advancing in the
treatment of cancer patients by improving
their outcomes and quality of life.



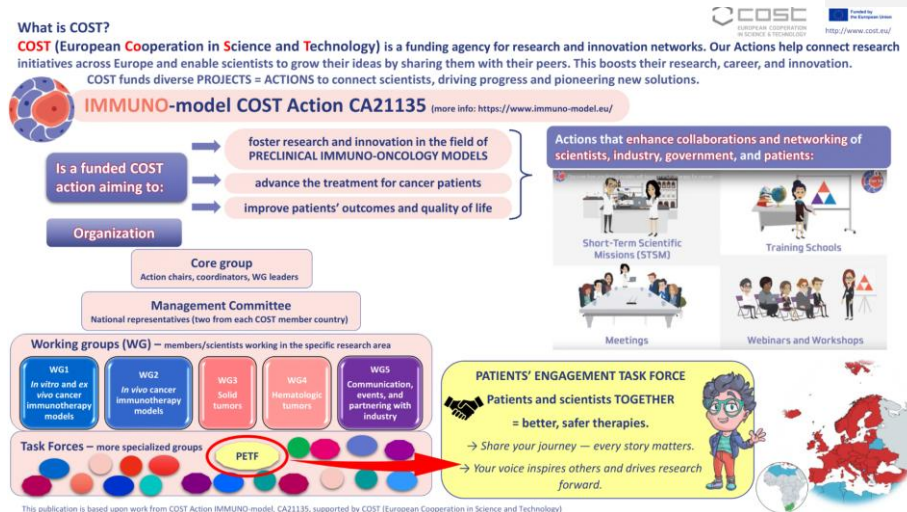
IMMUNO-model COST Action CA21135

- Roll-up for meetings/workshops/conferences



- Website session for patients: <https://www.immuno-model.eu/patient-information/>
- Videos for patients:
 - https://www.youtube.com/watch?v=zFhYJRqz_xk
 - <https://www.youtube.com/watch?v=uoJwt9l-XhQ>

- Graphic for patients:



- Flyers for patients
- Promotional videos of webinars on YouTube channel
 - 1st webinar: https://www.youtube.com/watch?v=IT6yd_tbedg ; 108 visualizations
 - 2nd webinar: <https://www.youtube.com/watch?v=NoXUxitzPHk> ; 173 visualizations
 - 3rd webinar: https://www.youtube.com/watch?v=q_iwA-Qertw ; 121 visualizations
 - 4th webinar: <https://www.youtube.com/watch?v=0rexzQPnx5s> ; 61 visualizations
 - 5th webinar: <https://www.youtube.com/watch?v=8YMK09bCU2c> ; 65 visualizations
- Newsletters: <https://www.immuno-model.eu/category/newsletter/>

7.8. 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 led by Gianmarco Contino (TGRC1), Denis Collins (TGRC2), and Hanne Haslene-Hox (TGRC3), with Uzma Hasan (France), Yari Ciribilli (Italy) completing TGRC1, Catarina Rodrigues (Portugal) completing TGRC2 and Marta Maleszewska-Bobińska (Poland) completing TGRC3.

Annual conference:

Members of the TGRC were represented in the scientific committee (Hanne Haslene-Hox (TGRC3), Catarina Rodrigues (TGRC2) and Marta Maleszewska (TGRC3)) for the annual conference in Warsaw, 13th/14th May 2025, and contributed to the balanced representation and inclusion of clinicians and

industry in the conference program. Marta Maleszewska was also the leader of the Organising Committee.

With regards participants, 37% were from ITC countries and 39% were categorised as young researchers.

The gender balance within the program was maintained: female speakers (52 %,17/33) and male speakers (48%, 16/33). Of these, 15 speakers were from ITC countries (44%), and 11 were young researchers (32 %).

18% (4/22) of speakers represented SMEs:

Denis Collins (TGRC2) delivered an update on TGRC activities to attendees as a part of the programme at the annual conference.

Targeted communication with specific members and membership groups

The TGRCs have continued to carry out targeted communication efforts, with a particular focus on topics relevant to industry stakeholders. This approach helps ensure that outreach is tailored to the specific needs of these actors. To promote industry and SME engagement, the TGRCs have continued to circulate the flyer and information letter developed in GP2 highlighting key details of particular relevance to these groups. Both resources are available on the shared online IMMUNO-model platform.

Industry recruitment through EEN

The European Enterprise Network (EEN) was identified in the COST application and the MoU as a potential source of industry participants. The network comprises key innovation actors from national and regional innovation offices across most European countries, along with contact information for several of these representatives.

With the development of industry-tailored communication materials, the process of sharing information about the COST Action with these contacts continued throughout GP3. Innovation offices were approached and asked to disseminate information about the IMMUNO-model COST Action to SMEs and industry partners that may benefit from its value propositions.

Meeting and established collaboration with yEFIS

The Young European Federation of Immunological Societies Network (yEFIS) was identified as an important platform for reaching potential members and collaborators. Bringing together early-career immunologists from diverse scientific backgrounds across Europe, yEFIS provides a broad and dynamic community for engagement.

Once the tailored IMMUNO-model COST Action materials were prepared, dissemination began in October 2024 and continued throughout 2025.

yEFIS has actively supported the promotion of IMMUNO-model activities—such as webinars and meetings—through its monthly email newsletter and social media channels. This partnership strengthens connections with early-career researchers and encourages collaboration within the Immuno-Oncology field. The collaboration directly contributes to Objective 2 (CB-O2) of the MoU. In addition, because yEFIS is closely linked with EFIS, it also supports progress toward Objective 3 (CB-O3).

TGRC Meetings:

- Alongside engagement in the monthly core group meetings and email communications, the TGRCs held 3 meetings in 2025 (June, October and December) to progress TGRC strategy and organise the TGRC September workshop (see below). Minutes are available on the shared IMMUNO-model intranet.

- The TGRC have presented updates in the Core Group and Management committee meetings. Denis Collins delivered the report on data collected at the 2024 TGRC workshop during the February Core Group Meeting (12.02.2025) and at the October MC meeting (02.10.2025). Presentations are included in the IMMUNO-model CG and MC meeting minutes.
- A hybrid conference for YRIs was organised by Catarina Rodrigues (TGRC2) with support from the TGRC committee members, through the Scientific Committee. It was called “Young Researchers and Innovators on Immunotherapies: the future is now” and was held from the 25. September 2025 in IPO-Porto, Portugal (<https://ipoporto.pt/en/eu-profissional/investigacao/centro-de-investigacao/>)
- TGRC members, IMMUNO-model members (including YRIs) from IPO-Porto were involved in the organization and local support of the conference.
- Local organizing committee (LOC):
 - o Catarina A. Rodrigues – Instituto Português de Oncologia do Porto – IPO-Porto, Portugal
 - o Cármen Jerónimo, CI-IPOP Director, MC representative (IPO Porto, Portugal)
 - o Filipa Reis, PhD student (IPO Porto, Portugal)
 - o Andreia Peixoto, Junior Researcher (IPO Porto, Portugal)
 - o Mariana L. Costa, PhD student (IPO Porto, Portugal)
 - o Sara Silva, PhD student (i3S, Portugal)
- Scientific committee (SC):
 - o Lucia Juhásiková, PhD student (Biomedical Research Center SAS, Slovakia)
 - o Margareta P. Correia, Assistant Researcher (IPO Porto, Portugal)
 - o João Pereira, Postdoctoral Researcher (i3S, Portugal)
 - o Denis Collins, IMMUNO-Model TGRC2 leader (DCU, Ireland)
 - o Hanne Haslene-Hox, IMMUNO-Model TGRC3 leader (SINTEF, Norway)
- All LOC and SC members were IMMUNO-model members.
- 62 attendees (46 in person and 16 online) heard from the Director of IPO Porto – Carmen Jeronimo on The Importance of IMMUNO-Oncology Research for clinical practice and from 5 invited speakers covering Where a PhD can take you: Exploring Career Paths and Skills (Elena Hoffer, Alma.me, Sweden), From Connection to Collaboration: Building Enduring Scientific Partnerships in Immuno-oncology (Paula Videira, NOVA FCT, Portugal), Signal to Noise: Communicating Science in 2025 (Thiago Carvalho, Fellowsherpa SI, Spain), Building Strong Grant Proposals and International Consortia@: TRANSCAN-3 IoAVATAR (Leticia Oliveira-Ferrer, UKE, Germany) and From Networking to career Growth: Lessons from IMMUNO-model (Eva Martinez-Balibrea, IGTP, Spain).
- The program prioritised 12 oral presentations from young researchers in IMMUNO-model.
- The workshop also had 9 poster presentations.
- YRIs from 16 different countries participated, including 7 ITC countries, 1 Near Neighbour Country (NNC) – Jordan, and two Internatioal Partner Countries (IPCs), Colombia and Nigeria.

- The workshop was promoted and reported on through LinkedIn, X (Twitter) by the TGRC, and through IMMUNO-model channels (including the December IMMUNO-model newsletter.

TGRC training/workshop event proposal

In the scope of the TGRC activities for GP4, a TGRC workshop focussed on Gender Equality, Gender in Research and Industry Engagement will take place at the 2026 Annual Conference on the 20--22 May 2026 in Ljubljana, Slovenia : “IMMUNO-model Final Conference: Building Bridges in Cancer Immunotherapy Modelling”

Planned date: 20th May 2026

Venue: National Institute of Biology, 121 Vecna pot, 1000 Ljubljana, Slovenia

8.9. Summary and directions for GP4

For the fourth Grant Period several activities are planned along the lines of those that took place in Grant Period 3. It should be noted that this Annual Conference, which will be organized in Slovenia, and will be more focused on the actual work carried out by the participants of the different Working Groups, who are currently collaborating with each other. This is undoubtedly an achievement of the scientific objectives of the IMMUNO-model Action and for GP4 the CA intends finalize scientific collaborations that have been established during GP1-2-3 ending up with grant writings, i.e. MSCA, EU funded grant, etc. In support, the knowledge hub task force as well the “find for partner tool on the website, will allow to carry out experiments with pre-clinical models of immuno-oncology and apply for funding.

During the last GP, IMMUNO-model members intend to gather knowledge on multi-omics data, patients’ role in immunotherapy models to be established, grant opportunities.

Podcasts, training school and 4 or 5 webinars, including Patients’ webinars, round table with patients, etc., will be still pursued. In particular, be the communication with Patients’ Associations will gather their experience after immunotherapy treatment.

The frequency of Working Group meetings will be increased, which are expected to result not only in new proposals for activities, but also in new collaborations among participants as well as joint publications.

Details of all the planned activities for Grant Period 4 are listed below:

- Workshop 1:
- 4th Annual Conference, Slovenia, May 2026
- Training School:
- 4-5 webinars
- 11 Core Group Meetings, 1 in person at the Annual Conference
- 1 Management Committee Meeting, Virtual,
- Grants (STSMs, ITCs, YRIs, VMs and DCs)
- 2 scientific publications in Open Access
- Communication with Patients’ Organizations
- Update and maintenance of the IMMUNO-model Website
- Zoom license for meetings and webinars
- Bank charges

Budget

	Budget GP4		
	Budget	LOS	TOTAL
Core Group Meeting Belgium 22/01/2026	16.568,00	0,00	16.568,00
Workshop on IMMUNOtherapies Spain 09/02/2026	19.850,00	2.000,00	21.850,00
Workshop on NK cell therapies Spain 04-05/03/2026	24.775,00	6.000,00	30.775,00
Annual Conference + CG meeting + TGRC Slovenia 20-21-22/05/2026	67.744,00	8.500,00	76.244,00
MC 1 Virtual 02/10/2026	0,00	0,00	0,00
CG meetings virtual x 10	0,00	0,00	0,00
Webinars x 4	0,00	0,00	0,00
STSM	15.000,00	0,00	15.000,00
VM	1.500,00	0,00	1.500,00
ITC Conference	1.000,00	0,00	1.000,00
Dissemination Conference	1.000,00	0,00	1.000,00
YRI	5.000,00	0,00	5.000,00
Scientific publication in Open Access	11.000,00	0,00	11.000,00
Website Maintenance	1.750,00	0,00	1.750,00
2 x Flyers for Patient Taskforce	500,00		500,00
2 x videos for Patient Taskforce	7.200,00		7.200,00
1 x video wrap up CA/highlights	3.000,00		3.000,00
Bank charges	650,00		650,00
Total			193.037,00
FSAC 15%			28.955,55
Grand Total			221.992,55