



European Society
for Blood and Marrow Transplantation

Cellular Therapy & Immunobiology Working Party

Chair: Christian Chabannon

Secretary: Annalisa Ruggeri

Subcommittee Leaders:

Immune Modulation: Francesco Dazzi, Florent Malard

Immune Monitoring: Luca Vago

HLA/Immunogenetics: Katharina Fleischhauer

Liaison with the Industry and EU bodies: Jürgen Kuball

HSC based therapies / Eurocord: Franco Locatelli, Annalisa Ruggeri

Immune Effector Cells therapies: Alvaro Urbano, Michael Hudecek

Solid tumours: Paolo Pedrazzoli, Ulrike Köhl

Nurses Group rep.: Rose Ellard

CTIWP Mission

Mission

To understand and exploit the biological and immunological events occurring upon HSCT at large, and to implement modern cellular therapies based on cellular and gene engineering approaches to improve transplantation outcomes.

The CTIWP aims at fostering cellular therapy in Europe, through a continuous crosstalk between basic science findings, transplant immunobiology observations and implementation of cell therapy approaches to answer unmet medical needs.

Education early 2020

2nd European CAR T Cell Meeting was organized in Sitges (Spain) with high level of attendees.



Cellular Therapy Registry

The Cell Therapy Registry (CTR) aims to collect data on stem cells, progenitors or mature cells, such as T-lymphocytes, unmanipulated, such as DLI, or sorted and/or cultured and/or genetically manipulated, such as CAR T-cells, used for treatment in combination with HSCT or alone, and including advanced therapeutic medicinal products (ATMP), as well as data on the clinical characteristics and outcomes of the patients.

PLEASE CONTRIBUTE... AND REPORT YOUR PATIENTS

CAR T-cell activities in Europe

Across Europe and beyond the EBMT has started to capture CAR-T cell activity and as these patient numbers begin to increase it remains paramount that their safety is closely monitored. Affiliated EBMT centers are requested to register patients treated with CAR T-cells and to report follow-up. July 2020 celebrated the 1st anniversary of public reporting of CAR-T cell activity in the EBMT electronic newsletter and on the EBMT website.

Countries reporting CAR-T cell treated patients to the EBMT registry



The EBMT has signed a contract with Novartis Pharmaceuticals in January, to study the long-term outcome of patients treated with tisagenlecleucel (Kymriah®). More recently, the EBMT has also signed a contract with Kite, a Gilead Company, to study the long-term outcome of patients treated with axicabtagene ciloleucel (Yescarta®). EBMT produced the 1st report to Novartis in the context of the PASS study, and will soon produce the 1st report to Kite/Gilead.

Ongoing studies

Currently ongoing retrospective studies include:

- Impact of COVID-19 on the delivery of CAR T-cell therapy (**S. Ghorashian**)
- DLI in Haplo PT Cy (**N. Santoro**)
- MSCs for treatment of steroid-resistant acute GvHD (**A. Galleu**)
- Evaluation of KIR-HLA class I Ligand models for donor selection (**J. Schetelig**)
- + 4 new studies starting soon

Completed studies/ data being analysed

- Donor-recipient HLA matching for UD HSCT outcomes (**A. Ruggeri, K. Fleischhauer**)
- Identifying CARs centers and CAR activity in Europe (**A. Urbano**)
- Retrospective study on TX in adult soft tissue sarcoma (**C.E. Heilig**)
- Long-term survival in patients with metastatic breast cancer receiving high-dose chemotherapy and autologous hematopoietic stem cell transplantation (**M. Martino**)

CTIWP sessions

Monday August 31st

Cell Therapy Day, 09:30-17:50

Jon J. van Rood Award, 18:00-18:30, Auditorium 1

The prestigious **Jon van Rood Award** will be awarded to **Cristina Toffalori**, for her paper: *Immune signature drives leukemia escape and relapse after hematopoietic cell transplantation*

CTIWP presentations originally accepted at @ EBMT 2020

Presentations

- Donor-recipient HLA matching for UD HSCT outcomes (**A. Ruggeri**)
- DLI after haploidentical HSCT with PT Cy: a study on behalf of the CTIWP of the EBMT (**N. Santoro**)
- Optimizing outcomes of acute leukemia after transplants with single unrelated cord blood units selected according to current international recommendations for cell dose and HLA match (**H Rafii**)
- An update of the EBMT survey on CAR T-cell activity in Europe. On behalf of the CTIWP (**A. Urbano**)

E-Poster Stem cell source area

Reduced intensity versus myeloablative conditioning in cord blood transplantation for AML (40-60 years) across highly mismatched HLA barriers - Analysis by CTIWP/Eurocord of EBMT (**V. Sheth**)

Key Publications 2019

Development of adaptive immune effector therapies in solid tumors

Ann Oncol. 2019 Nov 1;30(11):1740-1750. doi: 10.1093/annonc/mdz285

Umbilical cord blood versus unrelated donor transplantation in adults with primary refractory or relapsed acute myeloid leukemia: a report from Eurocord, the ALWP and the Cord Blood Committee of the CTIWP of the EBMT

Blood Cancer J. 2019 Apr 12;9(4):46. doi: 10.1038/s41408-019-0204-x

Clinical utilization of Chimeric Antigen Receptor T-cells (CAR-T) in B-cell ALL-an expert opinion from the EBMT and ASBMT

Bone Marrow Transplant. 2019 Nov;54(11):1868-1880. doi: 10.1038/s41409-019-0451-2

The EBMT activity survey report 2017: a focus on allogeneic HCT for nonmalignant indications and on the use of non-HCT cell therapies

Bone Marrow Transplant. 2019 Feb 6. doi: 10.1038/s41409-019-0465-9

Beneficial role of CD8+ T-cell reconstitution after HLA-haploidentical stem cell transplantation for high-risk acute leukaemias: results from a clinico-biological EBMT registry study mostly in the T-cell-depleted setting

Bone Marrow Transplant. 2019 Jun;54(6):867-876. doi: 10.1038/s41409-018-0351-x

CD19 chimeric antigen receptor-T cells in B-cell leukemia and lymphoma: current status and perspectives

Leukemia. 2019 Dec;33(12):2767-2778. doi: 10.1038/s41375-019-0615-5

Risk factors and outcomes according to age at transplantation with an HLA-identical sibling for sickle cell disease

Haematologica. 2019 Dec;104(12):e543-e546. doi: 10.3324/haematol.2019.216788

Upcoming events

February 4-6, 2021: The 3rd EBMT - EHA European CAR-T Cell Meeting

Planned for early 2021: The 3rd CTIWP Scientific Symposium

Contact CTIWP

For participation in or information on CTIWP studies, or if you are interested in submitting a proposal, please contact: CTIWPEBMT@lumc.nl

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Please join us!