



3rd Translational Research Conference
IMMUNE & CELLULAR THERAPIES: Focus on Advanced Gene-Engineered Immune Cells
September 13-15, 2024 – Malahide (Dublin), Ireland
Chairpersons: Chiara Bonini (Milan), Michael Hudecek (Würzburg), Stanley Riddell (Seattle)

Friday, September 13, 2024

08:30–08:40 Welcome

Conference chairs

SESSION I – Clinical development of CAR-T cell therapy

Chairs: Aude Chapuis (Seattle), Stanley Riddell (Seattle)

08:40-09:00 Hematology

Claire Roddie (London)

09:00-09:05 *Discussion*

09:05-09:25 Autoimmune diseases

Matteo Doglio (Milan)*

09:25-09:30 *Discussion*

09:30-09:50 Clinical management

Larry Bacon (Dublin)

09:50-09:55 *Discussion*

09:55-10:02 Selected brief oral communication

Marc Philipp Schauer (Würzburg)

Glucocorticoid excess drives receptor tyrosine kinase ROR1

expression and efficacy of glucocorticoid-resistant ROR1 CAR-T cells in advanced adrenocortical carcinoma

10:02-10:05 *Discussion*

10:05-10:35 *Panel discussion*

10:35-11:05 Coffee Break

SESSION II – Emerging targets for cell therapy

Chairs: Jennifer Adair (Seattle), Marcela Maus (Boston)

11:05-11:25 CAR targets

Michael Hudecek (Würzburg)

11:25-11:30 *Discussion*

11:30-11:50 TCR targets

Aude Chapuis (Seattle)

11:50-11:55 *Discussion*

11:55-12:15 Post translational modifications

Monica Casucci (Milan)

12:15-12:20 *Discussion*

12:20-12:27 Selected brief oral communication

Francesca Marzuttini (Milan)

Targeting Cathepsin G peptides on two different HLA molecules

with an individual T-cell receptor: a promising approach for acute myeloid leukemia immunotherapy

12:27-12:30 *Discussion*

12:30-13:00 *Panel discussion*

13:00-14:15 **Lunch**

SESSION III – Receptor engineering for tumor therapy

Chairs: Stephen Gottschalk (Memphis), Claire Roddie (London)

14:15-14:35 TCR & TCR-like

Chiara Bonini (Milan)

14:35-14:40 *Discussion*

14:40-15:00 Modular and Programmable Drug-On CAR Designs

Michael Jensen (Seattle)

15:00-15:05 *Discussion*

15:05-15:25 TBC

Johannes Huppa (Vienna)

15:25-15:30 *Discussion*

15:30-15:37 Selected brief oral communication
Generation and validation of novel mono and bispecific
peptide-redirected chimeric antigen receptors for pancreatic ductal adenocarcinoma

Elisa Sangiovanni (Milan)

15:37-15:40 *Discussion*

15:40-16:10 *Panel discussion*

16:10-16:40 **Coffee break**

SESSION IV – Gene editing to enhance efficacy

Chairs: Shin Kaneko (Kyoto)*

16:40-17:00 Allogeneic CAR-T cells in paediatric leukaemia

Robert Chiesa (London)

17:00-17:05 *Discussion*

17:05-17:25 Targeted CAR & TCR gene insertion

Dirk Busch (Munich)

17:25-17:30 *Discussion*

17:30-17:50 Safety-validating and enhancing CRISPR 2.0 to improve
immune cell therapies

Karl Petri (Würzburg)

17:50-17:55 *Discussion*

17:55-18:02 Selected brief oral communication
A CRISPR-edited allogeneic anti-CD19 CAR-T cell therapy with a
PD-1 knockout (CB-010) in patients with relapsed/refractory B cell non-Hodgkin lymphoma (r/r B-NHL):
Updated Phase 1 results from the ANTLER trial

Mehdi Hamadani (Milwaukee)

18:02-18:05 *Discussion*

18:05-18:35 *Panel discussion*

18:45-20:30 **Mentored poster walk - Welcome get-together buffet for all**
Biology Leaders: TBA
Clinical Leaders: TBA

Saturday, September 14, 2024

08:00-09:00 **3 simultaneous Meet the Expert sessions (Focus: Clinical)**

1. How I use CAR-T cell therapy to treat leukaemia? Claire Roddie (London)
2. What will the next generation of CAR-T products look like? Stephen Gottschalk (Memphis)
3. What will be the next breakthroughs with iPSC technology? Shin Kaneko (Kyoto)

09:10-10:10 **Slot for symposium**

10:10-10:30 **Coffee break**

SESSION V – Novel cell types and sources - beyond autologous

Chairs: Michael Jensen (Seattle), Halvard Bönig (Frankfurt)

- 10:30-10:50 NKT cell Guilia Casorati (Milan)
10:50-10:55 *Discussion*
- 10:55-11:15 iPSC-derived cells Shin Kaneko (Kyoto)
11:15-11:20 *Discussion*
- 11:20-11:40 NK cells Michael O'dwyer (Galway)
11:40-11:45 *Discussion*
- 11:45-12:15 *Panel discussion*

12:15-13:30 **Lunch**

13:00-13:30 **Slot for symposium**

13:35-14:50 **Best Abstracts session**

Chairs: Chiara Bonini (Milan), Michael Hudecek (Würzburg)

- 13:35-13:55 Utilizing insights from T cell signaling biology to alter CAR T cell functionality Robbie Majzner (Boston)
13:55-14:00 *Discussion*
- 14:00-14:07 Selected best abstract Sylvain Simon (Seattle)
Sensitive and bispecific Chimeric TCRs for cancer therapy
14:07-14:10 *Discussion*

14:10-14:17	Selected best abstract Cytosine base editor ameliorates the safety profile of TCR edited T cells for the Adoptive Cell Therapy of gastrointestinal tumors	Martina Spiga (Milan)
14:17-14:20	<i>Discussion</i>	
14:20-14:27	Selected best abstract Harnessing memory stem T cells for adoptive immunotherapy of cancer	Gabriele Inchingolo (Regensburg)
14:27-14:30	<i>Discussion</i>	
14:30-14:37	Selected best abstract Caffeine-regulated molecular switches for functional control of CAR T cells	Elise Sylvander (Vienna)
14:37-14:40	<i>Discussion</i>	
14:40-14:47	Selected best abstract Deciphering T cell responses after hematopoietic stem cell transplantation and personalized neoantigen vaccination in high-risk pediatric acute lymphoblastic leukemia patients	Sabrina Wagner (Munich)
14:47-14:50	<i>Discussion</i>	

SESSION VI – Engineering immune cells in vivo

Chairs: Dirk Busch (Munich)

14:55-15:15	B cells for humoral immunity	Adi Barzel (Tel Aviv)
15:15-15:20	<i>Discussion</i>	
15:20-15:40	Targeted viral vectors	Christian Buchholz (Langen)
15:40-15:45	<i>Discussion</i>	
15:45-16:05	Nanoparticle technology	Jennifer Adair (Seattle)
16:05-16:10	<i>Discussion</i>	
16:10-16:17	Selected brief oral communication Efficient Combinatorial Adaptor-Mediated Targeting of Acute Myeloid Leukemia with CAR T-Cells	Laura Volta (Zurich)
16:17-16:20	<i>Discussion</i>	
16:20-16:50	<i>Panel discussion</i>	
16:50-17:20	<i>Coffee break</i>	

SESSION VII – Correlative analyses of response and resistance

Chairs: Monica Casucci (Milan)*, Robbie Majzner (Boston)

17:20-17:40	Analyses on products before and after infusion	Marcela Maus (Boston)
17:40-17:45	<i>Discussion</i>	
17:45-18:05	Host factors: Microbiome	Maik Luu (Würzburg)
18:05-18:10	<i>Discussion</i>	

18:10-18:30	Analyses on tumor and TME	Leo Rasche (Würzburg)
18:30-18:35	<i>Discussion</i>	
18:35-18:42	Selected brief oral communication	Chiara Magnani (Zurich)
	CD19 CAR T Cells drive a remodeling of the Immune Microenvironment associated with T-cell dysfunction	
18:42-18:45	<i>Discussion</i>	
18:45-19:15	<i>Panel discussion</i>	

Sunday, September 15, 2024

08:00-09:00 3 simultaneous Meet the Expert sessions

1. Is AI ready to contribute to the cellular immunotherapy revolution? Dominic Grün (Würzburg)
2. What correlative studies can inform pre-clinical and clinical CAR-T research? Marcela Maus (Boston)
3. What will be the next generation of TCR-modified immune cells? Aude Chapuis (Seattle)

SESSION VIII – Overcoming barriers to improve response

Chairs: Guilia Casorati (Milan), Michael O’dwyer (Galway)

09:10-09:30	Barriers to T cell therapy in multiple myeloma	Stanley Riddell (Seattle)
09:30-09:35	<i>Discussion</i>	
09:35-09:55	Harnessing the immune suppressive microenvironment in gastrointestinal tumors	Alessia Potenza (Milan)
09:55-10:00	<i>Discussion</i>	
10:00-10:20	Overcoming T cell exhaustion and tumor resistance	Marco Ruella (Philadelphia)
10:20-10:25	<i>Discussion</i>	
10:25-10:32	Selected brief oral communication	Andrew Snyder (Seattle)
	PD-L1 blockade synergizes with c-Jun overexpression to drastically improve intratumoral CAR-T cell accumulation and tumor clearance in an aggressive autochthonous model of lung adenocarcinoma	
10:32-10:35	<i>Discussion</i>	
10:35-11:05	<i>Panel discussion and/or controversial debates</i>	
11:05-11:35	<i>Coffee break</i>	

SESSION IX – The future of engineered cell therapy

Chairs: Adi Barzel (Tel Aviv), Marco Ruella (Philadelphia)

11:35-11:55	Regeneration/rejuvenation of immune cells	Stephen Gottschalk (Memphis)
11:55-12:00	<i>Discussion</i>	
12:00-12:20	Application of AI and machine learning	Dominic Grün (Würzburg)
12:20-12:25	<i>Discussion</i>	
12:25-12:45	Automated, point-of-care manufacturing	Halvard Bönig (Frankfurt)
12:45-12:50	<i>Discussion</i>	
12:50-12:57	Selected brief oral communication	Sinéad Kinsella (Seattle)*
	Elevated secretion of tumor-derived metabolites promotes Treg proliferation and mediates immunosuppression in the solid tumor	
12:57-13:00	<i>Discussion</i>	
13:00-13:30	<i>Panel discussion</i>	
13:30-13:40	<i>Closing remarks</i>	Conference chairs

MEETING CLOSURE

**pending confirmation*