ISCT
ACADEMY OF TRAINING & DEVELOPMENT

CLINICAL CGT IMMUNE MONITORING AND IMMUNOBIOLOGY WORKSHOP: BUILDING AN EFFECTIVE PROGRAM

COURSE OVERVIEW

The Clinical CGT Immune Monitoring and Immunobiology Workshop is an expert-led, on-demand course designed for clinicians, scientists, process development associates, laboratory directors, and medical students seeking to advance their knowledge of immune monitoring and its application in CGT patient care.

The course features two specialized learning tracks:

- **Track 1** – Technical & Translational Focus: Designed for process development and translational scientists, this track explores assay selection, biomarker integration, workflow optimization, and practical strategies for implementing standardized immune monitoring across clinical and research settings.
- **Track 2** – Clinical Focus: Designed for clinicians and clinical researchers, this track covers immune monitoring strategies, patient follow-up, and the interpretation of immune biomarkers in the context of CGT patient outcomes.

Through expert-led presentations, real-world case studies, and practical examples, participants will gain actionable insights into implementing and optimizing immune monitoring strategies to support clinical decision-making, improve data consistency, and enhance patient care following CGT administration.

Delivered in a flexible, self-paced format, this course allows participants to explore both technical and clinical perspectives and apply their learning to their respective professional settings.

KEY LEARNING TOPICS INCLUDE:

Track 1 (Technical/Process Development/Manufacturing Focus):

- Process development associates responsible for translating research into clinical applications.
- Laboratory directors overseeing the implementation of new technologies and processes into existing workflows.
- Quality and clinical statisticians working to harmonize clinical trials data analysis.

Track 2 (Clinical Focus):

- Advanced Practice Professionals (APPs), Physicians, and Early-Stage Professionals (ESPs) involved in follow-up testing and patient care after cell therapy infusions.
- PhDs and MDs in translational research conducting clinical trials in cell and gene therapies, including oversight of patient outcomes.
- Clinical and non-clinical scientists with an interest in immunobiology and therapeutic indications.
- Laboratory professionals and support staff providing technical support in clinical research and patient monitoring.
- Industry professionals from pharmaceutical and biotechnology sectors seeking a deeper understanding of clinical practices and patient follow-up to better align products and services with customer needs.

DELIVERY METHOD

Online, on-demand

5 hours

ASCP

*ISCT is an ASCP Continuing Medical Laboratory Education (CMLE)- approved provider. Course participants are eligible for **5 CMLE credits.***

Scan this QR code to learn more and register

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INTRODUCTION

Session 1 | 30 mins	**Drivers and Inhibitors of CAR T -Cell Efficacy in Blood Cancers**
	Speaker: **Jan Joseph Melenhorst, PhD** Director *Cell Therapy and Immuno-Engineering Program (CTIP), Professor of Medicine and Biomedical Engineering, Cleveland Clinic Cleveland Clinic Research, United States*
Session 2 | 20 mins	**The Impact of Lymphodepletion on Antigen Presentation**
	Speaker: **Shira Sagie, MD, PhD, MPH** Postdoctoral Fellow *Oncology Department, Jusidman Cancer Center, Sheba Medical Center, Israel. Weizmann Institute, Israel*

TRACK 1 (TECHNICAL TRACK: HOW TO BUILD AND RUN AN EFFECTIVE IMMUNE MONITORING PROGRAM)

Session 1 | 20 mins	**Novel Technical Development of Immune System Profiling**
	Speaker: **Carolyn Shasha, PhD** Data Scientist *Fred Hutchinson Cancer Center, United States*
Session 2 | 20 mins	**Implementing an Immune Monitoring Program: From Sample Collection to Batching**
	Speaker: **Allan Dietz, PhD** Professor of Laboratory Medicine and Pathology *Mayo Clinic Rochester, United States*
Session 3 | 20 mins	**Interpreting Immune Monitoring Data: Linking Biomarkers to Clinical Response**
	Speakers: **Federica Galaverna, MD, PhD** Physician Scientist *Transplant and Cellular Therapy Unit Bambino Gesù Pediatric Hospital, Italy*

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TRACK 1 (TECHNICAL TRACK: ADVANCED TECHNOLOGIES IN IMMUNE MONITORING)

Session 4 | 20 mins	**Multi-Omics & Proteomics Immune Monitoring in Solid Tumors**

Speaker:
Stefan Nierkens, PhD
Associate Professor, Tumor Immunology
Medical Immunologist UMC Utrecht and Princess Máxima Center for Pediatric Oncology, the Netherlands

Session 5 | 20 mins	**Metabolic Conditioning of CAR-T Cells: From Ex Vivo Optimization to In Vivo Persistence**

Speaker:
Roddy O'Connor, BSc, MS, PhD
Research Assistant Professor of Pathology and Laboratory Medicine
Perelman School of Medicine, University of Pennsylvania Pennsylvania, United States

TRACK 2 (CLINICAL TRACK: IMMUNE EFFECTOR CELLS (IEC) AND CAR-T CELL THERAPIES MECHANISMS, MONITORING AND CLINICAL IMPACT)

Session 1 | 20 mins	**Determinants of CAR-T Efficacy: Immune Effector Cell Function, Persistence, and the Tumor Immune Milieu**

Speaker:
Judith Wienke, PhD
Research Group Leader, Immunotherapy for Solid Tumors
Princess Máxima Center for Pediatric Oncology, the Netherlands

Session 2 | 20 mins	**Immune Reconstitution After CAR T-Cell Therapy in Non-Malignant Diseases**

Speaker:
Simon Völkl, PhD, MHBA
Principal Investigator, Department of Medicine 5 - Hematology & Internal Oncology
University Hospital Erlangen, Germany

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Session 3 | 20 mins	**Immune Effector Cell Therapies Beyond B- Cell Cancers; Lessons from AML CAR-T Trials**

Speaker:
Kevin Curran, MD
Associate Attending Pediatrician
Memorial Sloan Kettering Cancer Center, United States

TRACK 2 (CLINICAL TRACK: IMMUNE RECONSTITUTION AFTER TRANSPLANT: DO WE REALLY KNOW WHAT'S HAPPENING)

Session 4 | 15 mins	**Do We Really Understand Post-Transplant Immune Recovery? The Role of Lymphoid Tissue Regeneration**

Speaker:
Leena Babiker
PhD Candidate Cancer Immunology & Immunotherapy
Perelman School of Medicine, University of Pennsylvania, United States

Session 5 | 15 mins	**From Thymic Damage to T Cell Recovery: From Preclinical Insights to Clinical Translation**

Speaker:
Enrico Velardi, PhD
Principal Investigator, Immune Regeneration and Experimental Hematology Laboratory Bambino
Gesù Children's Hospital, Italy

Session 6 | 15 mins	**The Reconstituted Immune System as a Driver of Leukemia Control**

Speaker:
Alexandre Troullioud Lucas, MD
Assistant Attending Physician
Memorial Sloan Kettering Cancer Center, United States

CLOSING REMARKS

Closing Remark: 30 mins	**The Future of Spectral Flow Cytometry in Immunomonitoring in Cell Therapies**

Speaker:
Juan Flores-Montero MD, PhD
Postdoctoral Researcher
Cancer Research Center. Department of Hematology, Spain

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