ISCT ACADEMY OF TRAINING & DEVELOPMENT

THE USE OF CELL THERAPIES FOR AUTOIMMUNE DISEASES: CAR-T FROM BIOLOGY TO CLINICAL APPLICATION

COURSE OVERVIEW

Dive into the forefront of CAR-T therapy for autoimmune diseases in this 7-hour on-demand course. Designed for clinicians, researchers, and industry leaders, it covers the full spectrum from basic research to clinical practice. Learn from pioneering experts as they share advanced insights into CAR-T development, explore targeted biological therapies, and discuss solutions to key clinical challenges. The course also addresses regulatory requirements, manufacturing processes, and practical strategies for translating CAR-T therapies from bench to bedside.
Through real-world case studies, clinical success stories, and the latest data, registries, and reports, you'll gain a comprehensive understanding of the clinical applications of CAR-T therapies for autoimmune diseases.

WHO IT IS DESIGNED FOR

Clinical researchers, clinicians and physicians engaging in the translation of CAR-T cell for clinical applications Medical students aiming to broaden their knowledge and advancement of CAR-T cell therapy

DELIVERY METHOD

- Online, on-demand
- Seven hours

ASCP

7 Hours of Continuing Education (CMLE)

International Society ISCT Cell & Gene Therapy®

www.isctglobal.education

Scan this QR code for more information about the course

THE USE OF CELL THERAPIES FOR AUTOIMMUNE DISEASES: CAR-T FROM BIOLOGY TO CLINICAL APPLICATION

ISCT ACADEMY OF TRAINING & DEVELOPMENT

SESSION ONE: OVERVIEW OF CAR-T CELL THERAPY: PAST, PRESENT AND FUTURE OF CAR-T

Speaker:
Bruce Levine,PhD
Barbara and Edward Netter Professor, University of Pennsylvania, United States

Learning Outcomes:
- *Explain the evolution of CAR T-cell therapy from first-generation designs to current autologous, allogeneic, and in vivo platforms, and how these advances inform safety and access in autoimmune applications*
- *Summarize the emerging strategies for enhancing CAR T potency and expanding CAR T-cell therapy beyond oncology, including applications in autoimmune disease*

SESSION TWO: B CELL AND AUTOIMMUNITY

Speaker:
Karin Tarte, Pharm D, PhD
Director UMR U1236-MOBIDIC, Head of Honeycomb Research Team, Head of the Immunology Lab at Rennes University Hospital, Head of Rennes Immunomonitoring Platform (SITI), Medical School of Rennes, France

Learning Outcomes:
- *Summarize the complexity of B-cell features and functions in autoimmune diseases*
- *Explain the variable impact of B-cell targetingtherapies in autoimmune diseases*

SESSION THREE: TARGETED BIOLOGICAL THERAPIES IN AUTOIMMUNE DISEASES

Speaker:
Tobias Alexander, MD
Senior Physician, Head of the Rheumatology Outpatient Clinic, Charité – Berlin University Medicine, Germany

Learning Outcomes:
- *Summarize the complexity of B-cell features and functions in autoimmune diseases*
- *Explain the variable impact of B-cell targetingtherapies in autoimmune diseases*

SESSION FOUR: CAR-T IN AUTOIMMUNE DISEASES: FROM CONCEPT TO REALITY

Speaker:
Georg Schett, MD, PhD
Vice President of Research & Head of Department of Internal Medicine, University of Erlangen–Nuremberg Germany

SESSION FIVE: SLE TREATMENT AND PROGNOSIS

Speaker:
Andrea Doria, MD, PhD
Head of the Rheumatology Unit, Department of Medicine, Padova University School of Medicine, Italy

SESSION SIX: CAR-T ANTI-CD19 IN SEVERE LUPUS

Speaker:
Fabian Muller, MD
Head of Research Group in Molecular Immunotherapy University Hospital Erlangen, Germany

SESSION SEVEN: CAR-T REGS IN LUPUS

Speaker:

Raffaella Greco, MD
Senior Hematologist, Hematology & Bone Marrow Transplantation, IRCCS San Raffaele Hospital, Italy

Learning Outcomes:

- *Define the role of Tregs in autoimmunity*
- *Show the efficacy and the safety of anti-CD19 CAR-Tregs in preclinical models of lupus*

SESSION EIGHT: CONSIDERATIONS ON LYMPHODEPLETION FOR AUTOIMMUNE DISEASE PATIENTS

Speaker:

Jaap Jan Boelens, MD, PhD
Chief Pediatric-Oncologist, Transplantation and Cellular Therapies, Memorial Sloan Kettering Cancer Center, United States

Learning Outcomes:

- *CAR-T therapy is a 'multi-modal therapy' (Lympho-depletion, CART product and sometimes + post infusion therapies)*
- *Lympho-depletion/conditioning package (e.g. Cy/Flud) is not a 1 LD/Conditioning if you do not consider the pharmaco-kinectics of the agents used.*

SESSION NINE: IMMUNE MONITORING AND IMMUNE RECONSTITUTION AFTER CAR-T INJECTION IN AUTOIMMUNE DISEASES

Speaker:

Andreas Mackensen, MD
Deputy Director of the CCC Erlangen-EMN, Director of the Medical Clinic 5 (Hematology and Internal Oncology), University Hospital Erlangen, Germany

Learning Outcomes:

- *Define the most important read-outs of CAR-T cell immunmonitoring and the clinical relevance*
- *Describe the kinetics of CAR-T expansion and persistance and B-cell depletion and reconstitution in patients with B-cell malignancies vs. autoimmune disease post CAR-T*

SESSION TEN: IS THERE A PLACE FOR CAR-T IN RHEUMATIC ARTHRITIS

Speaker:

Doron Rimar, MD
Senior Physician, Director of the Rheumatology Daycare Center, Bnai Zion Medical Center, Israel

Learning Outcomes:

- *The current indication to use CAR T in Rheumatoid arthritis*
- *The evidence for the efficacy of CD 19 CAR T in Rheumatoid Arthritis*

SESSION ELEVEN: CAR-T FOR MYOSITIS & INTERSTITIAL LUNG DISEASE

Speaker:

Jörg Henes, MD, PhD
Head of the Rheumatology Department, Senior Physician of the Department of Medical Clinic II University of Tübingen, Germany

Learning Outcomes:

- *Differences in autoimmune mediated myopathies*
- *The use of CAR T cells directed against different antigens maybe helpful*

SESSION TWELVE: CAR-T IN SCLERODERMA

Speaker:
Alain Lescoat, MD, PhD
Department of Internal Medicine and Clinical Immunology, Rennes University Hospital, France

SESSION THIRTEEN: PATIENT SELECTION AND ADWP EBMT GUIDELINES FOR CLINICAL PRACTICES

Speaker:
Dominique Farge, MD, PhD
ISCT Regional Vice-President, Europe Internal Medicine, St Louis Hospital, Paris-Cité University, France

Learning Outcomes:
- *To review the evaluation process to be performed in case of severe specific rheumatological, neurological or hematological AD prior to consider patient eligibility and/or selection for CAR-T therapy*
- *To understand the importance of multidisciplinary team analysis and repeated evaluations in a JACIE or FACT accredited center for severe AD patients to be treated by CAR T cells*

SESSION FOURTEEN: B CELL TARGETED THERAPY IN INFLAMMATORY AUTOIMMUNE DISEASES OFTHE CNS

Speaker:
Aiden Haghikia, MD, PhD
Clinical Director, Department of Neurology, University Hospital Magdeburg, Germany

Learning Outcomes:
- *Pathomechanism(s) of neurological diseases*
- *Role of B cells for pathogenesis and therapy in neuroimmunological diseases*

SESSION FIFTEEN: RESETTING THE IMMUNE REPERTOIRE IN NEUROLOGICAL AUTOIMMUNE DISEASES

Speaker:
Paolo Muraro, MD, PhD
Neuroimmunology and Neurology, Department of Brain Sciences –Faculty of Medicine, Imperial College London, United Kingdom

Learning Outcomes:
- *Identify two types of immunological changes indicating 'Immune resetting" following disease-modifying treatment in neurological disease*
- *Give example of two methods that can be applied for monitoring immune blood cells in CAR-T cell therapies*

SESSION SIXTEEN: CAR-T IN MULTIPLE SCLEROSIS

Speaker:
Christoph Heesen, MD, PhD
Clinical and Rehabilitative MS Research, Head of Multiple Sclerosis Day Hospital, University Medical Center Hamburg-Eppendorf, Germany

Learning Outcomes:
- *Explain immunopathology in MS with a focus on B-cells.*
- *Describe safety and laboratory marker findings in a small cohort of CART cell treated patients with MS.*

SESSION SEVENTEEN: STATISTICAL CONSIDERATIONS FOR OPTIMAL CAR-T CLINICAL TRIAL DESIGN IN AUTOIMMUNE DISEASES

Speaker:

Lucie Biard, MD, PhD
Department of Biostatistics, St Louis Hospital, ParisCité University, France

Learning Outcomes:

- *List the main challenges related to defining and assessing outcomes in clinical trials for CAR-T cell therapy in auto-immune diseases*
- *Identify main methodological issues of single-arm trial designs in causal interpretation of treatment effects*

SESSION EIGHTEEN: SAFETY OF GENE MODIFIED IMMUNE CELLS: CONSIDERATIONS IN AUTOIMMUNE DISEASE

Speaker:

Bruce Levine, PhD
Barbara and Edward Netter Professor, University of Pennsylvania, United States

Learning Outcomes:

- *Describe the mechanisms, observed incidence, and ongoing investigations related to secondary primary malignancies following CAR T-cell therapy and how that informs therapy safety and informed consent*
- *Differentiate between the potential mechanisms underlying clonal expansion of genetically modified T cells and true transformation events leading to malignancy*

SESSION NINETEEN: CELL MANUFACTURING IN THE ACADEMIC SETTING

Speaker:

Manel Juan, MD, PhD
Head of Immunology Department, Hospital Clinic Barcelona, Spain

Learning Outcomes:

- *Autologous manufacturing of CAR-T cells is likely much better suited to decentralized academic production, as it may be the only viable option to ensure patient access to these therapies worldwide; especially, though not exclusively, when developing highly specific treatments for small patient groups (e.g., for kids).*
- *In autoimmune diseases, CAR-T immunotherapy could achieve a very high level of specificity, making it more feasible to personalize therapy in PoC academic productions through these proposals.*

SESSION TWENTY: REGULATORY CHALLENGES AND FRAMEWORK FOR CAR-T APPLICATION IN EUROPE (EMA)

Speaker:

Cristina Avendaño, MD, PhD
Head of Clinical Pharmacology Department, Puerta de Hierro University Hospital, Spain

Learning Outcomes:

- *Describe the regulatory framework for ATMP development and access*
- *Update on the hospital exemption pathway in the context of the new EU regulation*

SESSION TWENTY ONE: HOW TO DEAL WITH EXISTING REGISTRIES REPORTS AND REAL WORLD DATA ANALYSIS?

Speaker:

Raffaella Greco, MD
Senior Hematologist, Hematology & Bone Marrow Transplantation, IRCCS San Raffaele Hospital, Italy

Learning Outcomes:

- *Address the worldwide sources of data in cellular therapies*
- *Describe the role of EBMT registry in the data collection for CART cells*

PLANNING FACULTY



DOMINIQUE FARGE, MD, PHD
ISCT Regional Vice-President, Europe
Internal Medicine St. Louis Hospital
Paris-Cité University France



FERMIN SANCHEZ-GUIJO, MD, PHD
ISCT Immediate Past Regional Vice-President, Europe
Department of Medicine
University of Salamanca
Department of Hematology
University Hospital Salamanca
Spain



BRUCE LEVINE, PHD
ISCT Past President
Barbara and Edward Netter Professor
University of Pennsylvania
United States



ANDREAS MACKENSEN, MD
Deputy Director
CCC Erlangen-EMN
Director of Medical Clinic 5
(Hematology and Internal Oncology)
University Hospital Erlangen
Germany



RAFAELLA GRECO, MD
EBMT Secretary and Immediate Past Chair
Autoimmune Diseases Working Party
Senior Hematologist
Hematology & Bone Marrow Transplantation
IRCCS San Raffaele Hospital
Spain



GEORG SCHETT, MD, PHD
Vice President of Research &
Department Head
Internal Medicine
University of Erlangen-Nuremberg
Germany