ISCT
INSTITUTE OF TRAINING & DEVELOPMENT

ISCT-ACTRIS 2-DAY GMP LABORATORY BOOTCAMP:
HANDS-ON TRAINING IN CELL THERAPY BIOMANUFACTURING

Monday, August 31 – Tuesday, September 1, 2026

Advanced Cell Therapy and Research Institute, Singapore

COURSE OVERVIEW

Join the inaugural ISCT–ACTRIS 2-Day GMP laboratory training at Advanced Cell Therapy and Research Institute, Singapore (ACTRIS) for an immersive, expert-guided hands-on laboratory training on CAR-T point-of-care manufacturing to enable patients' access.

Gain 1:1 coaching and practical lab training in cell therapy manufacturing process from start to finish. Master batch record documentation, protocol-driven operations, and best practices, and walk away with the skills to apply GMP principles directly in clinical manufacturing.

DELIVERY METHOD

In-person interactive course

2-day training
Monday, August 31 – Tuesday, September 1, 2026

Advanced Cell Therapy and Research Institute, Singapore (ACTRIS)
30 Hospital Boulevard, #19-02
Singapore 168583

KEY LEARNING TOPICS INCLUDE:

- Gain theoretical and hands-on practice with cell manufacturing workflows
- Perform hands-on cell culture initiation, expansion, product characterization and safety testing in GMP-compliant lab.
- Gain knowledge in completing GMP-compliant batch records.
- Earn an ISCT–ACTRIS Certificate of Completion.

ASCP

ISCT is an ASCP Continuing Medical Laboratory Education (CMLE)-approved provider.
This course consists of 18 CMLE credits.

ACTRIS
Advanced Cell Therapy and Research Institute, Singapore

International Society ISCT Cell & Gene Therapy®

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DAY 1

08:30 – 08:40	**Check-In, Registration and Coffee**
8:40-09:10	**Safety Orientation: Understanding GMP Infrastructure, Cell MFG Operations** • Apply laboratory safety, PPE, and ergonomics for working in GMP labs. • Apply GMP protocols when handling and reporting spills and injuries. • Apply proper aseptic techniques when handling biohazard materials in the lab. • Operate essential laboratory equipment (pipettes, biological safety cabinets, centrifuge)
09:10 – 09:30	**Welcome and Introduction**
09:30 – 10:30	Lecture 1 **Introduction to Good Manufacturing Practices (GMP) and Good Documentation Practices (GDP) for Cell Therapy Manufacturing** • Explain core principles and best practices in cell therapy manufacturing. • Develop a basic understanding of GLP & GMP standards. • Recognize the impact of non-compliance and identify strategies to mitigate risks.
10:30 – 10:45	**BREAK**
10:45 – 12:00	Lab Training **Aseptic Media Preparation for T-Cell Culture Initiation and Expansion in GMP Settings (Part 1)** • Demonstrate proper aseptic techniques for preparing materials and reagents needed for T-cell thawing, counting, and culture initiation. • Perform accurate cell counts and cell viability to support decision-making during culture set-up.
12:00 – 13:00	**Sponsor Lunch**
13:00 – 16:00	Lab Training **Aseptic Media Preparation for T-Cell Culture Initiation and Expansion in GMP Settings (Part 2)** • Initiate and activate T-cell cultures using cell manufacturing equipment. • Apply best practices to thaw cryopreserved T cells for culture initiation.

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16:00 – 16:15	**BREAK**
16:15 – 17:30	Lab Demo **Flow Cytometry Set Up and Analysis** • Explain the process for setting up a robust flow cytometry antibody panel for evaluating cell product composition and viability. • Outline the best practices for gating strategies and data interpretation.
17:30 – 18:30	**Data Management and Reporting** Wrap up
19:00 – 20:00	**Networking Reception (Sponsor)**

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DAY 2

09:00 – 10:00	Lecture **Cell Product Handling and Processing Workflows: Considerations and Best Fit** • Summarize key facility and equipment requirements for full-scale GMP operations and cell product manufacturing. • Recognize and explain key considerations when selecting equipment for cell bioprocessing and manufacturing methods. • Understand the framework and parameters used to assess equipment suitability within a workflow. • Describe critical requirements and fail-safe mechanisms for equipment in GMP operations
10:00 – 12:30	Lab Training **Cell Product Manufacturing Workflow** • Apply GMP laboratory safety and operational best practices during cell manufacturing equipment setup and operations • Analyze cell culture systems to select appropriate platforms for small- and large-scale cell manufacturing applications. • Evaluate post-thaw cell quality and perform cell culture observation.
12:30 – 13:30	**Sponsor Lunch**
13:30 – 15:30	Lab Training **Aseptic Qualification** • Prepare and use kit materials required for cleanroom operations. • Perform aseptic qualifications in GMP-compliant cleanroom environment • Demonstrate hands-on aseptic techniques in a GMP-compliant environment. • Identify required manufacturing and QC documentations and compliance requirements. • Apply best practices for safe and compliant operations in GMP cleanroom setting. • Perform product safety testing, including sterility, mycoplasma and endotoxin testing

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15:30 – 16:00	**BREAK**
16:00 – 17:00	Lab Training **Cell Product Characterization** • Prepare samples for flow cytometry analysis, including proper staining, compensation, and reporting.
17:00 – 18:00	Lab Training **Cell Product Harvest and Cryopreservation** • Perform final product harvest for downstream assays. • Carry out cryopreservation procedures to preserve cell products for storage or transport.
18:00 – 18:30	**Data Management and Reporting**
	WRAP UP

Planning Committee:

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