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

08:00-08:30	**Registration and Coffee**
08:30-08:40	**Welcome and Introduction**
08:40-08:50	**Safety Orientation** • 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)
08:50-09:50	**Lecture** **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.
09:50-11:05	**Lab Training** **Aseptic Qualification (Part 1)** • 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.
11:05-11:10	**Break**
11:10-12:10	**Lab Training (Part 1)** **Aseptic Qualification (Part 2)** • 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
12:10-13:10	**Lunch**

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13:10-14:55	**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
14:55-15:55	**Lecture** **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
15:55-16:00	**Break**
16:00-17:00	**Lab Training** **Cell Product Characterization** • **Prepare samples for flow cytometry analysis, including proper staining, compensation, and reporting.**
17:05 – 18:05	**Networking Reception**

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DAY 2

08:30-09:00	**Registration**
09:00-11:10	**Lecture** **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.
11:10-11:15	**Break**
11:15 – 12:15	**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.
12:15– 13:15	**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.
13:15-14:15	**Lunch**
14:15 – 15:15	**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.
15:15-16:30	**Lecture** **Batch Manufacturing Records (BMR)** • Perform mock filing of Batch Manufacturing Records • Recognize and correct common issues when completing BMR.
16:30-17:00	**WRAP UP & QUIZ**

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