# SIMPLIFY AND SECURE YOUR BIOSAFETY QUALITY CONTROL WITH NEXT GENERATION SEQUENCING (NGS)

**Cell Therapies** 

### COMPLIANT, FASTER, ANIMAL-FREE





**Adventitious Agent Testing** 

**Integration Site Analysis** 

#### SIMPLIFIED VIRAL SAFETY TESTING



#### Reduced sample volume:

Only one million cells needed



#### Faster:

One assay replaces *In Vivo* and *In Vitro* Adventitious Agent Testing and Species-Specific Virus Testing



**Animal-Free:** 3Rs compliant

#### Safer:

Comprehensive viral breadth of detection

## UNMATCHED PRECISION FOR GENETIC CHARACTERIZATION



#### **Integration Site Analysis:**

- Better understanding of your clones
- Targeted, long-read sequencing analysis to resolve concatemers, truncations and inverted repeats more easily

#### **2 GMP MIRROR FACILITIES**



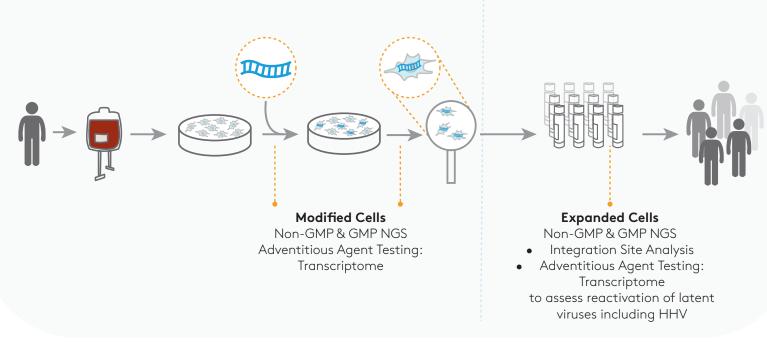
#### **REGULATORY GUIDELINES**

- WHO Expert Committee on Biological Standardization (80th report) (2025)
- ICH Q5D Derivation and characterization of cell substrates
- EMA Guideline: EMA/CHMP/BWP/457920/2012 Rev.1
- FDA Guidance for the Industry: Points to consider in the characterization of cell lines (1993)
- FDA draft guidance documents Safety testing of human allogeneic cells expanded for use in cell-based medical product (April 2024)
- USP <1050> Viral safety from cell lines of human and animal origin
- Ph. Eur. 2.6.41 High-throughput sequencing for the detection of viral extraneous agents: New chapter adopted in March 2025



#### **UPSTREAM PROCESSING (USP)**

#### **DOWNSTREAM PROCESSING (DSP)**



#### **ASSAY SPECIFICATIONS**

	Assay	GMP	Sample Requirements	Turnaround Time	Deliverables to Client
VIRAL SAFETY	iDTECT® Transcriptome	<b>✓</b>	Min. 3×10⁵ cells	5 weeks (Standard) 4 weeks (Fast Track)	<ul><li>Certificate of Analysis</li><li>Expert virologist report</li><li>Raw data</li></ul>
GENETIC CHARACTERIZATION	iDTECT® Integration Site Analysis		5×10° cells (≥10 μg DNA per sample)	5 weeks (per round)	<ul><li>Report</li><li>Raw Data</li></ul>

Back up samples required. BSL1 and BSL2 samples accepted. | Shipment & storage: - 80°C/Dry Ice







