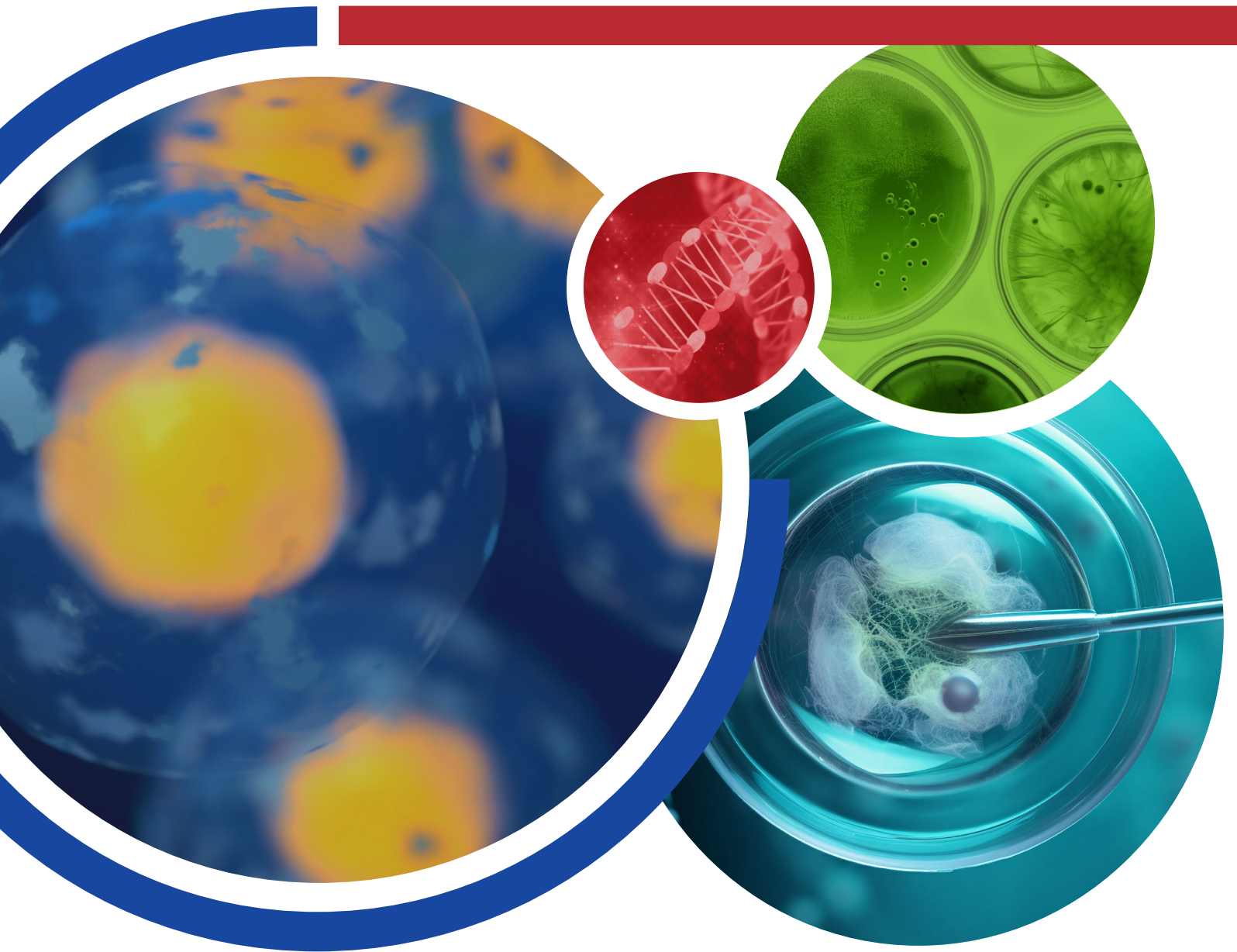




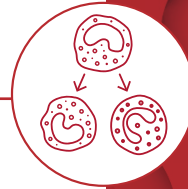
CELL AND GENE THERAPY





Transforming Concept into Reality

No matter the scope of your research or the workflow in your laboratory, cell and gene therapy discovery and manufacturing can face hurdles in ensuring consistency and quality. PHC Corporation of North America (PHCNA) is proud to offer instruments designed to help propel your research forward. Whether your research requires reduction in cell damage during sorting or high quality 2D and 3D visualization, PHCNA is here to help.



The World's First Disposable Microfluidic Chip Cell Sorter

Utilizing advanced microfluidic technology and micro-molding technology, the world's first microfluidic chip-based sorting technique was developed by On-chip Biotechnologies Co., Ltd. PHCNA is proud to partner with On-chip Biotechnologies to offer this revolutionary advancement which opens doors to new possibilities for scientific discovery.

Microfluidic chip-based cell sorting helps solve problems found in conventional cell sorters. On-chip® Sort uses a unique sorting mechanism to eliminate many of the challenges involved in the jet-in-air method to reduce Sort Induced Cell Stress (SICS) which often plagues cell isolation technologies currently used in the cell therapy manufacturing space.*

The On-chip Sort also helps to improve the consistency and reproducibility of results by reducing the potential for contamination. The unit is compact enough to fit inside a biosafety cabinet. It also does not produce aerosols during sorting so it can accommodate biohazardous samples.

Key Features:

- Easy to operate
- Disposable pipette tip-based dispensing system
- Automatic dilution function + CCD camera image recognition
- Sample sizes up to 125 μm can be dispensed

Key Features:

- A variety of lenses from 2x to 40x for diverse sample observation
- High-definition stitching with advanced image processing technology
- Clear bright-field image capability
- Plate incubation function (optional)
- Ability to capture all-in-focus images optimal for 3D cultured cell analysis



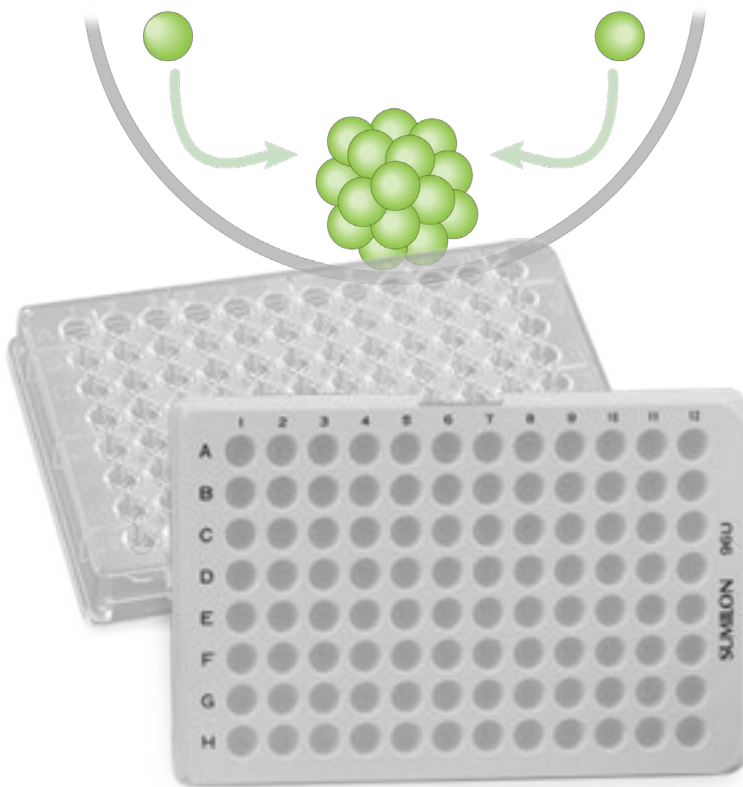
Imaging and Analysis System for 3D Cell Cultures

The Cell3iMager series instruments are imaging systems that capture and analyze 2D and 3D cultured cells at high-speed using SCREEN's unique optical system and image processing technology.*

The instruments leverage Deep learning analysis to allow high-confluence and non-uniform organoid images to be accurately extracted and measured. Detection of cells by their degree of differentiation and cell morphology is enabled with the Deep learning software.

The SCREEN Cell3iMager NX is a high-throughput imager used to perform quantitative analysis of cells cultured in 2D and 3D environments.





3D Cell Culturing

PrimeSurface 3D cell culture well plates are designed with a variety of well shapes to enable spheroid culturing of your special cell type. PrimeSurface cell culture labware leverage ultra-low attachment (ULA) dishes and plates that promote scaffold-free self-assembly of spheroid formation.

PrimeSurface ULA plates are designed to provide high optical clarity making them highly suitable for bright field imaging and confocal microscopy.

96 well plates are available in U, V, and M bottoms enabling the formation of tighter spheroids that are preferred for special cell types. For high throughput screening (HTS) needs, 384 well plates are available in clear and white.

Key Features:

- Wide range of PrimeSurface media plates enables variety imaging processes
- Ultra-hydrophilic polymer reduces surface adhesion of certain cell cultures
- High rate of uniform, single spheroid formation from one well

PHCNA Supports Your Cell and Gene Therapy Workflow

Providing optimal laboratory equipment to support your autologous, allogeneic, and other cell and gene therapy work.

phcbi



Preservation

Secure cell and gene therapy products with safe, reliable, and industry-leading energy efficient ultra-low temperature solutions.

[ULT Freezers](#)

[Cryogenic Freezers](#)



Laboratory Storage

Protect stored media, reagents, chemotherapy, pharmaceutical, and other products in PHCbi brand +2°C to +8°C undercounter and upright refrigerators.

[Laboratory Refrigerators](#)

**Protect, Visualize,
Analyze, Sort,
Grow, Preserve**



Cell Culturing

Ensure reproducibility while mitigating contamination risks through active and passive decontamination features with high-quality cell culture labware and incubators.

[PrimeSurface®](#)

[Cell Culture Incubators](#)

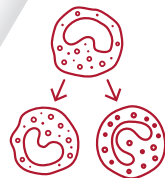


Cell Imaging and Analysis

Improve therapeutic product quality and consistency through advanced cell imaging and analysis products.

SCREEN

Cell*B*iMager



Cell Sorting

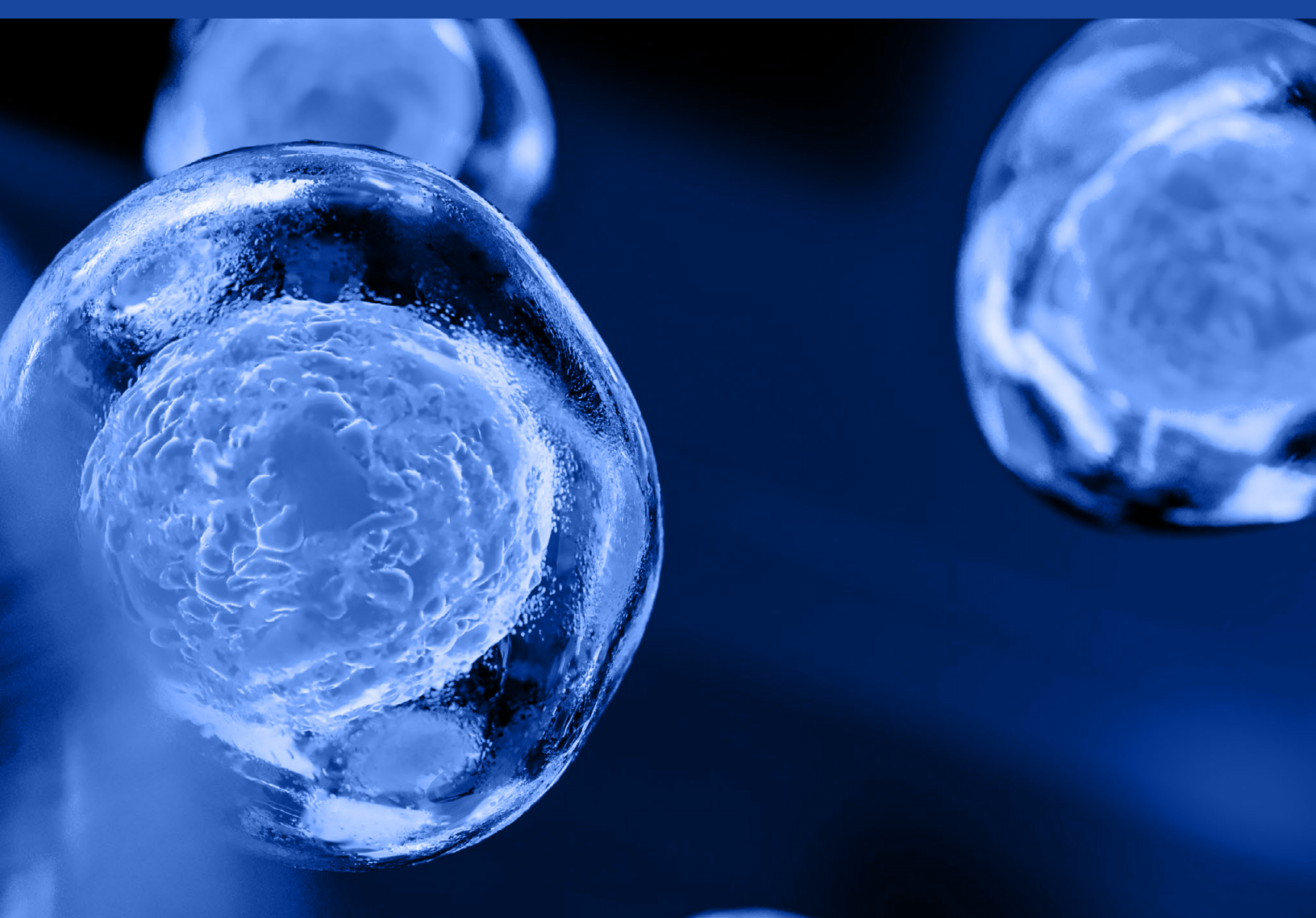
Eliminate damage from decompression shock and shear stress and reduce contamination with microfluidic cell sorting, leading to greater cell health and purity.

On-chip
Microtechnology

About PHC Corporation of North America

PHC Corporation of North America, located in Wood Dale, IL, is a leader in laboratory equipment for the biopharmaceutical, life sciences, academic, healthcare and government markets. Product lines under the PHCbi brand include the space saving and energy efficient VIP® ECO and TwinGuard® ultra-low temperature freezers, cryogenic and biomedical freezers, pharmacy and high-performance refrigerators, cell culture CO₂ and multigas incubators, and Drosophila/plant growth chambers. PHC Corporation of North America is a subsidiary of PHC Holdings Corporation, Tokyo, Japan, which is a global healthcare company that develops, manufactures, sells, and services solutions across diabetes management, healthcare solutions, diagnostics and life sciences.





PHC Corporation of North America

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