# Intelligent Protection of Life Science Smart Laboratory Solutions

### **About Haier Biomedical**

Haier Biomedical has long been a trusted provider of traditional products essential to the cell culture workflow, such as biological safety cabinets, CO2 incubators and ultra-low temperature freezers. The company is also at the cutting edge of innovation, developing advanced solutions that are poised to help revolutionise the cell and gene therapy sector. By integrating automation, real-time data analysis, and digitisation into their products, Haier Biomedical is driving forward the next generation of affordable, scalable, efficient, and safe solutions for cell and gene therapy, aligning perfectly with the forward-looking theme of Cell 2024.

#### **Cell Culture Workflow Solutions**











#### **Automated Cell Culture Station**



The Automated Cell Culture Workstation is designed for standardised, automated amplification and preparation of cells, suitable for various institutions including cell therapy enterprises, hospitals, and research institutes. It integrates modules for cell observation, centrifugation, and high-throughput culture, ensuring consistency and precision.

- Full integration of multiple cell culture processes (centrifuge, microscope, incubator, safety cabinet)
- Real-time traceability of cell culture data with digitised monitoring
- Standardised, automated cell preparation for improved batch-tobatch consistency



# -196°C Intelligent Liquid Nitrogen Biological Sample Storage System





retrieval of cryogenic boxes, ensuring the safety and stability of samples throughout the storage process.

This system ensures the safe, long-term storage of biological samples at ultra low temperatures (-196°C). It provides automated management and

- Fully automated sample access with one-key operation
- Select and pick a single vial or cryobox
- IoT-based monitoring for real-time traceability
- Personnel, sample, and equipment safety guarantee
- Optional robotic transportation module
- Capacity: Up to 46,000 x 2ml cryovials



This container provides secure, low temperature transport for biological samples, ensuring their safety during transit. It uses IoT technology for real-time monitoring throughout the process.

- Maintains temperatures below -150°C for over 6 hours
- GPS positioning and temperature logging via IoT
- Status alarms for overtemperature and accidental tipping



This station automates the refilling of liquid nitrogen, improving user safety by eliminating manual handling. It can be integrated with new or existing systems.

- Automates liquid nitrogen refilling to reduce injury risk
- Integrates with existing biobank systems
- Compact and portable design

## -80°C Automated Storage



The workstation offers an automated storage and retrieval system and is a stand-alone module for samples at -80°C, enhancing biobank efficiency and sample safety. It integrates information management to track every sample.

- One-key, hands-free operation for quick and accurate sample retrieval within just 50s
- Robotics are contained in -25C environment to ensure accurate sample picking with reduced freeze-thaw impact
- Connects to your LIMS or BIMS\*
- Quick and easy installation

## **Smart Sample Management Consumables**





These cryogenic tubes are designed for ultra-low temperature storage, ensuring sample safety and standardization in biobanks. They offer superior compatibility and biosafety.

- Compatible with multiple format options
- 2D Barcode & RFID solutions
- RFID compatible with Haier Biomedical's stand alone RFID ULT freezer for improved sample tracking and management
- Sealed to prevent leakage, meeting IATA dangerous goods standards
- Rigorous testing ensures no contamination (RNase, DNase, endotoxins)