### Haier Biomedical Intelligent Protection of Life Science

—August, 2021—

### Newsletter

# Haier Biomedical Liquid Nitrogen Container Receives Multiple Orders

As a professional biosafety solution provider and manufacturer, Haier Biomedical liquid nitrogen storage solutions are widely used in laboratories, hospitals, universities, medical enterprises and other institutions around the world to provide guarantees for the integrity and maximum value of biological samples. Haier Biomedical is able to customize products and solutions according to the different requirements of users to meet the needs of different ranges of capacity and diversified scenarios and environments.





Customers from the University of Liverpool said that they like Haier Biomedical's liquid nitrogen containers very much. It is compact, but it can make a big difference. The castor base and storage access make this unit easy to move and access, to store or retrieve samples.

Matthew Hutchings from the School of Biomedical Engineering and Imaging Sciences, King's College London, also uses Haier Biomedical's liquid nitrogen containers to store the precious samples. He said, they are highly satisfied with the performance of Haier Biomedical's liquid nitrogen containers, and they plan to procure more in the future as the research expands.



In Ethiopia, Haier Biomedical has supplied 115 small-capacity aluminum alloy liquid nitrogen containers to the Ministry of Agriculture, including 100 YDS-3 and 15 YDS-35 liquid nitrogen containers. The batch of liquid nitrogen container products will be used by National Artificial Insemination Center (NAIC) of Ethiopia's Ministry of Agriculture to preserve cattle semen cryogenically.



In Manchester, Haier Biomedical has installed a large-scale liquid nitrogen biological sample library for customers, and provides comprehensive management of samples in transportation, storage, processing, and transformation.



At the University of Cambridge, Steve Ward from Haier Biomedical visited the Department of Pharmacology to follow up on a recent installation of their new Haier Biomedical liquid nitrogen biobank storage system. It is located in a shared storage facility used by both the MRC Toxicology Unit and the Department of Pharmacology for researchers'study and experiments.

Haier Biomedical Liquid Nitrogen Containers have advanced vacuum and superinsulation technology, which can ensure temperature uniformity and storage security while reducing the consumption of liquid nitrogen. The smart bottle stopper is designed for dual independent monitoring of temperature and liquid level. High-precision liquid level and temperature sensors can monitor the temperature information and liquid level information in the liquid nitrogen container in real-time, ensuring sample safety, security and reliability.

## Haier Biomedical and THACO Unite to Build Vietnam's Anti-Pandemic Defense Line

According to a report by Vietnamese media Dantri, the Vietnamese automobile manufacturer THACO designed and manufactured a batch of vaccine transport and inoculation vehicles for local COVID-19 sampling tests in response to the call from the Vietnamese government.



It is worth noting that the vehicles in this project are designed with Haier Biomedical's HBC-150 ice-lined vaccine refrigerators, with a total of 63 units used to date. The vehicle and its wide-ranging benefits, with superior cold chain vaccine solutions onboard was demonstrated to the Prime Minister of Vietnam. Haier Biomedical's ice-lined vaccine refrigerator is recognized by customers for its superior thermal insulation performance. The vaccine refrigerator only needs power supply for up to 8 hours a day to work under normal conditions. The temperature in the unit can be maintained at 2° C-8° C at an ambient temperature of between 5 ° C-43 ° C, and the holdover time after power failure is more than 60 hours. The Haier Biomedical's HBC-150 ice-lined vaccine refrigerator is designed with a solar display panel, a safety door lock, a compressor operating status indicator, and a temperature data logger, which can effectively monitor and record the storage temperature which ensures the safety of the vaccine.

The joint efforts from Haier Biomedical and THACO is beneficial to build Vietnam's anti-pandemic defense line and accelerate the local vaccination process!

## Haier Biomedical Helps Togo Build a National Vaccine Solution

According to Anadolu News Agency, the coronavirus positive rate in Togo has continued to decline since the Togolese government launched the national vaccination program on March 10. The local pandemic prevention initiative has achieved remarkable results. It is reported that the vaccines used in the country are mainly AstraZeneca, Sinovac and Pfizer vaccines. At present, Togo has received 729,000 doses of AstraZeneca vaccine, 200,000 doses of Sinovac vaccine and 100,620 doses of Pfizer vaccine for national vaccination programs. By the end of August, the total number of vaccines is expected to reach 3 million.

As a professional complete cold chain solution provider and manufacturer, Haier Biomedical had the honor to receive earlier this year a visit by the Chargé d'Affaires a.i. of Togo. With safe, secure, and reliable products and solutions, Haier Biomedical won the trust of the Togolese government and thus became the supplier of Togo's national vaccine cold chain system.

In this project, Haier Biomedical provided a complete cold chain solution to ensure vaccine safety for Togo's vaccination program. It safeguards vaccine safety and ensures a secure vaccination cold chain from the national level to the regional level, from vaccine storage, transportation to inoculation at the last mile.

For the national level, Haier Biomedical walk-in cold rooms, which are fully WHO/PQS certified, were used for central cold storage when the vaccines originally arrived by air to Togo. For the regional level, when the vaccines were distributed to major cities and local health institutions, they were stored in Haier Biomedical's pharmacy refrigerators.







In addition, Haier Biomedical's -86°C ULT freezers will also be used by the Togolese government to store the Pfizer vaccine, providing the Togolese people with more options for vaccines and accelerating the overall vaccination program – together improving health networks across Togo.



At the same time, Haier Biomedical's transport cooler is widely used in various health institutions and vaccination stations. With the help of the high-efficient cold preservation of Haier Biomedical's transport cooler, vaccine safety can be guaranteed to the last mile.

Haier Biomedical continues to pay close attention to the global pandemic and is committed to delivering the optimum vaccine cold chain complete solutions globally, safeguarding vaccine safety and reliability!

## Haier Biomedical and the Red Cross in Turkey Unite to Fight the Pandemic

Since June, Turkey has increased its vaccination progress against COVID-19 by expanding healthcare vaccination teams with the plan to achieve herd immunity before the autumn. According to Xinhuanet, the country's previous on-site vaccination sites included shopping malls, municipalities and commercial centers, and now it covers train stations and bus stations. In addition, the Turkish health authorities have also organized more mobile vaccination teams to call on the public for vaccination by visiting neighborhoods and villages.

Haier Biomedical cooperated with the Red Cross to assist Turkey's vaccination program for the entire population. Significant discussions regarding equipment deployment and temperature testing etc. occurred between Haier Biomedical and Turkish authorities and the Red Cross prior to a formal agreement. However, due to the advanced cold chain product and solution offering for vaccine safety and distribution, Haier Biomedical provided the Turkish Red Cross with 20 units of DW-86L828J ULT freezers for vaccine storage, ensuring vaccine security and reliability.



Haier Biomedical DW-86L828J ULT freezers are designed with a hydrocarbon refrigeration system, which is environmentally friendly and pollution-free. It does not damage the ozone layer at all, and the greenhouse effect is almost zero. The freezers utilize two-stage cascade refrigeration technology with high cooling efficiency and are fully US Energy Star certified. Thermal insulation board and LBA fluorine-free foam design achieves a superior thermal insulation performance. Four individual removable foam inner doors and a five-layer sealing design can reduce energy consumption by more than 20%. The cabinet temperature can reach -86°C with temperature uniformity within ±5°C. In addition, the pressure equalization port enables easy opening of the door. The test port is convenient to connect to the temperature monitoring module, bringing more convenience to the user by the humanized design.

