Haier Biomedical

Intelligent Protection of Life Science

— March, 2023—

Newsletter

HBU-Blood Solution Approved by Partners

Blood safety is an important part of public health management and an global healthcare concern for safety of blood from vein to vein. On March 17th, and in order to learn from China's advanced smart blood management solution and improve the level of blood safety management, Haier Biomedical's international partners and senior management team visited Qingdao Municipal Hospital, Qingdao Central Blood Station to learn the smart blood management platform. This not only demonstrates the global leadership of the U-Blood Solution created with Haier Biomedical, but also means that Haier Biomedical's smart blood model has taken a new journey of going abroad to promote and copy it international, and contribute the "Haier Power" to the world.



"Seeing how our RFID U-Blood solution connected with the hospital blood management software has been implemented to offer a full closed loop blood tracking system was incredible to witness. The hospital can remotely issue blood and also track its temp status and GPS position through our RFID transport coolers meaning blood can be taken for emergencies in ambulances and helicopters but more importantly can be returned if not used therefore avoiding wastage. The distribution center is also using the same technology and can easily see which hospitals in the local area require more stock. The time and money saved from wastage and over stocking etc. has enabled the distribution center and the hospitals to streamline their processes and offer a better service to the patients. This solution is leap forward from what most are using currently, and I am convinced it will be used across the planet in the future". Said Richard Jafrato GM Haier Biomedical UK.

The Internet of Things empowers blood safety and creates a new model of urban blood management, said Vice GM, Mr. Wang of Haier Biomedical International.

Blood is the source of life. With the development of information technology such as the Internet of Things, big data, and artificial intelligence, it is highly anticipated to use modern technology to solve blood safety problems. During the hospital visit, Haier Biomedical's international partners and senior management team discussed with the leaders of Qingdao Municipal Hospital and other leaders about blood innovation in smart hospitals. Among them, Cheng Cong, the director of the Blood Transfusion Medicine Department of Qingdao Municipal Hospital, gave a detailed introduction to the current smart blood use scenarios such as distributed blood bank scenarios, in-hospital transfer scenarios, and blood transfusion department blood bank scenarios.





It is said by the Qingdao Central Blood Station, that they have achieved unified supervision of the city's blood quality and comprehensively improved the quality of blood in the city by building paperless blood donation, automated component preparation lines, whole-process smart blood supply, sample testing management, and smart city blood distribution management.

To Replicate China's Smart Blood Solution to the World

The development of modern medicine is inseparable from the promotion of engineering technology and equipment.

"Therefore, it is necessary to adhere to the collaboration between manufacturer and user and strengthen the drive of clinical needs and innovative technologies to suit all healthcare global requirements. The smart blood management platform jointly engineered by Haier Biomedical and Qingdao Municipal Hospital is not only the most professional solution available on the market, it also uses the latest innovative digital technology to promote the construction of a smart city blood network, but also a new model in the development path of "collaboration between manufacturer and user". Said, Peter Pedersen, Director of International Business Operations at Haier Biomedical.



Specifically, the smart blood transfusion department can achieve automatic monitoring of blood inventory, expiration date, and temperature monitoring through the layout of intelligent blood cell and plasma management refrigerators, with the help of the big data platform, it can also monitor blood quality assurance in the hospital and cold chain equipment. Overall, the monitoring of the operating status for blood transfer, can be achieved with Haier Biomedical's U-Blood Solution deployment of blood in the hospital and emergency blood outside the hospital by moving forward the intelligent blood refrigerator of the Internet of Things, and can monitor the transfer temperature, alarm information, and door ajar and closing records in real time, improving the qualification rate of blood transfusion.

In addition, during the visit to the blood station in the center of Qingdao, Haier Biomedical's international partners were full of praise for the blood collection and supply mode of the digital blood station. Europe Director, Mr. Giorgio Citarei said after the visit, "That the Haier Biomedical solution that has been innovated, developed, and installed is extraordinary for its completeness in managing the traceability of the temperature of blood bags along the entire route. The solution dramatically increases efficiency and safety in blood bag transfusion".

The application of the smart blood network platform has promoted the digital upgrade of the intelligent hardware and software of the central blood station and the blood transfusion department of the hospital. The travel accelerates the progress of blood solutions to the international and provides a feasible idea for solving the global blood safety problem as well.

Protecting blood safety is a major task related to global healthcare. As the global-leading innovative digital scenario solution provider in the life science and medical innovation fields, Haier Biomedical has built a timely and efficient blood safety service system through co-creation of the U-Blood Solution, and continues to contribute the Haier Groups wisdom and solutions to global health. Facing the future, Haier Biomedical will continue to develop its independent innovation strength, continuously improve the level of urban blood safety management, help achieve the mission of making life better through the intelligent protection of life science and deliver the highest level of quality and development for global healthcare!

Haier Biomedical | International Senior Management **Conference Successfully Completed!**

On March 13th 2023, Haier Biomedical International Senior Management Conference was successfully held, all the international management and key team members from across the globe, as well as directors and leaders gathered together at HQ Qingdao -China. Focusing on local market demands, the event aims to create more market opportunities for the international market. With the Redanheyi management platform at the forefront of discussions - the team will continue to focus on the betterment of global healthcare services to make life better, through the intelligent protection of life science. Said, Peter Pedersen, Director of International **Operations Department.**



What was an important issue, was not only did all the global managers represent themselves, but also their local markets, and communicated with all related departments on multiple scenarios such as biobanks, pharmaceuticals, laboratories,





New product training

At the same time, the company also arranged visits to Qingdao Blood Bank, Qingdao Municipal Hospital and other end users, providing global managers with an opportunity to fully understand Biomedical that guarantees for public health and life safety through the management and of safety of blood collection and supply and clinical blood use.

conference is a further development of Haier Biomedical's localization strategy, through an in-depth understanding of the characteristics and needs of international markets, the outcomes will provide customers with more high-quality products and services due to the two-way communication between international and local HQ team members, and promote the better development of Haier Biomedical in international markets.

On-site interaction between global managers and product departments

Unlocking the Power of ULT Freezers: Why Validation is Crucial for Success!

Ultra-low temperature (ULT) freezers are essential pieces of equipment in many industries, including pharmaceuticals, biotech, and healthcare. They are designed to provide stable, ultra-low temperature storage conditions for a variety of samples and materials. However, to ensure that the ULT freezer is providing the necessary conditions, it's important to validate the

operating within its intended specifications. The validation process includes testing the equipment to ensure that it can maintain the desired temperature range and uniformity, as well as assessing its performance under various conditions.

There are several reasons why it's important to validate a ULT freezer. One of the most significant reasons is compliance with regulations. Many industries are subject to regulatory requirements that mandate equipment validation, including ULT freezers. By complying with these regulations, organizations can avoid non-compliance penalties and maintain their license to operate.

In addition to regulatory compliance, validating a ULT freezer is crucial for quality assurance. Ensuring that the freezer is performing as intended is critical for maintaining the integrity of stored samples and materials. If the freezer is not operating within the specified temperature range or has poor temperature uniformity, it can compromise the quality of stored samples, which can have serious consequences for research or clinical



Validating a ULT freezer is also important for risk management. By identifying potential risks associated with equipment failure, such as temperature excursions or freezer malfunctions, organizations can take steps to prevent or mitigate them. This can help minimize the impact of equipment failures and prevent. damage to stored samples.

Finally, validating a ULT freezer can also improve efficiency and reduce costs associated with energy usage and maintenance. By ensuring that the freezer is operating within its validated specifications, organizations can optimize its performance, lower energy costs and reduce the need for maintenance or

In conclusion, validating a ULT freezer is an essential step in ensuring that it is providing reliable ultra-low temperature storage conditions for samples and materials. It can help ensure compliance with regulatory requirements, maintain the integrity of stored samples, minimize the impact of equipment failures, and optimize efficiency.



Haier Biomedical's range of ULT freezers have been successfully validated and temperature mapped by users in multiple compliance scenarios. The UK recently heard of one such test performed by a client within the highly regulated pharma and biopharma manufacturing and testing arena, Merck's BioReliance. BioReliance® testing services are the leading GMP and GLP testing services provider for the development of therapeutics and complies with regulatory bodies such as the US Food & Drug Administrators (FDA) and the Medicines and Healthcare products Regulatory Agency (MHRA).

During a visit to Merck Bioreliance in Glasgow, Richard Jafrato, UK General Manager and Usman Ayub, Scotland and North sales representative, learned how imp validation team has been with the temperature mapping data from Haier Biomedical's Twincool ULT freezers. The freezers show better temperature uniformity than competitor dual cool ULT freezers on site.

Haier Biomedical: Resource Integration Accelerates **Global Market Expansion**

critical for enterprises to accelerate their efforts to further tap into new opportunities as well as continued growth in global markets, by



industry.

Compared with the mature global laboratory consumables market, China's biological laboratory consumables market is still bring tremendous benefits to China's laboratory consumables market. At a macro level, only by integrating resources and accelerating efforts to export products can enterprises grow larger and stronger.

to be a promising industry. The acquisition of Suzhou Kangsheng, a leader in the field of domestic consumables, enabled Haier Biomedical to integrate resources and accelerate the company's expansion into international markets.

and development, Haier Biomedical has been building its presence in differentiated market segments, mainly including pipette tip consumables, PCR tube series, and centrifuge tubes.



At the same time, to meet the needs of users, Haier Biomedical's R&D team is continuously optimizing and improving the products. For example, the company's pipette tips composed of medical grade polypropylene is resistant to high temperatures, high pressure, and high heat, and the company's product department has optimized the pipette tip's size to ensure that the pipette can smoothly suction the sample. The company's different packaging methods, such as bulk packaging and sterile packaging, also provide users with convenience in various scenarios.

With an emphasis on laboratory consumables, Haier Biomedical has always valued user satisfaction and product quality, which will allow the company to expand its presence on local and international markets, thereby increasing the global competitiveness of its laboratory consumables.

In the future, Haier Biomedical will continue to break through technical barriers, establish competitive advantages in differentiated market segments, and provide clients with more comprehensive scenario solutions by expanding its global channels, strengthening its brand influence, and improving platform capabilities, thereby allowing the company to contribute its expertise to the advancement of life science.

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