Haier Biomedical
Intelligent Protection of Life Science

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Newsletter

Haier Biomedical Approved by U.S. R&D Institutions

Winning Recognition in the U.S. Market with Innovation & Technology, Haier Biomedical Continues to Demonstrate Its International Capability

With the new variant emerging in several countries around the world, new initiatives have been taken to fight the pandemic. The U.S. announced on December 2nd new anti-pandemic initiatives to protect Americans from the mutated virus this winter. The new initiative will provide booster vaccines for all adults, continue to guarantee the vaccination of children, and contribute to global vaccination efforts.

The new anti-pandemic initiative has mentioned vaccination many times, reflecting the high level of attention paid to the latest research and development of vaccines and antiviral drugs. To meet the strict temperature and safe storage requirements of precious biological samples needed in vaccine research and antiviral drug development, the Johns Hopkins University and the U.S. Centers for Disease Control and Prevention have successively introduced Haier Biomedical's ULT Freezer to provide a safe, secure, and reliable storage environment for precious research samples and promote local vaccine research and other life science research work.

Entering the top research universities to assist in the development of anti-pandemic research

The Johns Hopkins University is the first research university in the United States and one of the 14 founding schools of the Association of American Universities (AAU), the academic alliance of top universities in North America. In order to better promote the national anti-pandemic process and research the newly emerged variant and the corresponding vaccine, Johns Hopkins University chose Haier Biomedical's ULT Freezer DW-86L728ST to assist in its subsequent scientific research.

The dual system ULT Freezer from Haier Biomedical is known for its safety. It has two independent freezing systems, if one of them has problems, the other will automatically run and maintain the storage temperature of -80 °C, providing the highest level of protection for valuable samples that require strict and continuous storage conditions. In addition, the product adopts a hydrocarbon refrigeration system, which can achieve rapid cooling, and its energy-saving efficiency is 50% higher than the traditional refrigeration technology, greatly reducing the cost per unit of sample storage. And the application of VIP insulation technology makes the insulation efficiency increase by 20%. The products are recognized by the market in terms of performance, environmental protection, and energy-saving.

Trusted by U.S. government agency as a long-term partner

The Centers for Disease Control and Prevention (hereinafter referred to as CDC) is a government agency under the U.S. Department of Health and Human Services and the first federal health organization created in the United States. Currently, the Center's main task is to prevent and control infectious diseases, and it plays an important role in the prevention and control of the COVID-19 pandemic.

As a global supplier and manufacturer of complete cold chain solutions, Haier Biomedical continues to pay attention to the global pandemic. With stable product performance and superior quality, Haier Biomedical has signed a 5-year long-term procure agreement with the US CDC. At present, Haier Biomedical's ULT Freezer DW-86L579BPT has arrived at the destination.

As part of the complete cold chain solutions, Haier Biomedical's ULT Freezer has reached a world-leading level of energy efficiency, insulation, safety and stability, bringing a more stable and efficient sample storage solution for scientific research, thus being highly recognized by the U.S. market. The frequent presence of Haier Biomedical products in major top institutions in the United States is a sign of Haier Biomedical's increasing competitiveness in developed markets like the United States and reflects the global market's recognition and trust in Haier Biomedical.

Cutting-edge Technology Refined, Superior Products to Serve Professional Users.

In 2009, the Internet of Things (IoT) became the leader of the information revolution, igniting a new wave of global innovation, while biotechnology also brought in unparalleled opportunities. Haier Biomedical capitalized on the trend by integrating cryogenic cold chain technology with the Internet of Things at a deeper level, achieving a breakthrough in integration and development and becoming the first technology ecosystem listed on the Science and Technology Innovation Board, 2019 in Shanghai.

What type of organization continues to deliver leading edge IoT technology and innovation to the world? To gain further insight into Haier Biomedical, we were lucky enough to have some quality time with Mr. Chen Haitao, Chief Director R&D Department and Deputy General Manager of Haier Biomedical for an exclusive interview.

The consistent reality is that the product is king. Director Chen stated that the organizations new product development will always be"user demand-centered and market-oriented," and that the development platform and the entire Ecosystem Micro-community (EMC), (Haier's management system) will be integrated for various biomedical scenarios and needs, in order to develop a total solution including software and hardware that can more easily meet the customization needs of users.

In the recent decade, the number of Internet of Things (IoT) devices has exploded onto the market. The trend toward interconnected gadgets such as wearables, sensors, appliances, and medical monitors has made it simpler to collect and share massive volumes of big data than ever before. According to International Data Corporation (IDC)'s estimation, there will be 41.6 billion linked IoT devices by 2025.

"Along with market demand, the product development also maintains abreast of technological advancements and undertakes forward-thinking research. To develop biomedical scenarios to be more user friendly, informative and controlled remotely, Haier Biomedical's research and development team has been stepping up its game in artificial intelligence and Internet of Things technology, with the goal of significantly increasing work efficiency while lowering labor costs, reducing error rates, and achieving standardized operational processes. Additionally, Haier Biomedical has developed a strong technical foundation in the field of cryogenic cold chain storage, and we will continue to advance into the core biomedical field in the future to ensure that the company's products can support scientific research in a deeper and broader biomedical field."

Energy is a critical component of human society's existence and growth, and environmental preservation is critical to attaining human society's sustainable development. China State Council has issued the "Action Plan for Carbon Peaking by 2030", which specifies the relevant requirements in enhancing energy utilization efficiency and reducing CO_2 emission levels.

Finding a balance between energy and environmental preservation is a challenging task, but Haier Biomedical has always delivered its mission and developed environmentally friendly products. Director Chen stated that as a corporate and socially responsible organization, Haier Biomedical has taken steps to conserve energy and safeguard the environment. At the moment, the company is investing heavily in Stirling technology, an advanced cryogenic refrigeration technology that utilizes helium as the refrigerant, is environmentally friendly, has a high efficiency rating, and has a large cooling capacity, and can achieve rapid cooling in deep low temperature zones. Under the zero emissions and carbon neutrality goals, accelerating the industrialization of Stirling refrigeration technology has become a necessity for the development of the industry.

"Our ultra-low temperature refrigerators use hydrocarbon refrigerants, which belongs to the second generation of products, and the refrigeration efficiency is more than 50% higher than the first generation of Freon refrigeration products; and, according to the company's Stirling technology planning and goals, Haier Biomedical's refrigeration efficiency will increase by another 20% or so," Director Chen explained.

"Stirling refrigeration originates from aerospace technology, and its higher refrigeration efficiency and reliability is in line with the needs of low-temperature scientific research field of the safe storage of precious samples; at the same time, Stirling technology can also give us a new ultra-low temperature intelligent platform that can be independently controlled, which will have a broad application space in high-end instruments, scientific research equipment and other fields, such as infrared detection and cryogenic superconductivity, to make reserves for future advancement of science and technology and expansion of high-end equipment."

Director Chen concluded the interview by sending a heartfelt greeting to all Haier Biomedical entrepreneurs, stating, "Looking back over the last decade, two important words resonate most strongly with me: entrepreneurship and innovation. Entrepreneurship, in my opinion, is founded on innovation, and entrepreneurship also demonstrates the path of innovation. We have been contributing to the common purpose during Haier Biomedical's expansion, and I feel the immense delight of innovation and entrepreneurship from the entire team. Simultaneously, the company over the last decade or more has realized we the potential to assist society and make a bigger contribution to the country, if not the globe, through the creation of solar vaccine refrigerators, aerospace refrigerators, and so on. If research and development practitioners can use their expertise to benefit society, and as long as they can apply what they have learned within the industry to benefit the country, this life is truly not a waste."

"A platform like Haier Biomedical that is focused on technology research and development is uncommon, and there are numerous opportunities and challenges, so we should cherish this platform, maximize our value, and create something tangible through innovation and entrepreneurship in order to achieve our goals and create social value."

Haier Biomedical has a long history for the development of innovation and breakthroughs in the biomedical sector; guided by the brand idea of "Intelligent Protection of Life Science" the organization is devoted to worldwide scientific progress and to Make Life Better through the most advanced solutions. Simultaneously, we always bear the social responsibilities of a global enterprise and work hard to provide a brighter future for all.

Haier Biomedical Helps Children's Vaccination

Safeguarding Children's Vaccination, Create a Future Together

The United Nations General Assembly has designated January 24 as International Education Day to commemorate the contribution that education makes to advance peace and development. Without inclusive and equitable quality education and lifelong learning opportunities for all, countries will not succeed in achieving gender equality and breaking the cycle of poverty that leaves millions of children, youth and adults behind. And today, 262 million children and adolescents still do not attend school; 617 million children and adolescents lack reading and basic math skills; less than 40 percent of girls in sub-Saharan Africa complete lower secondary education and some 4 million refugee children and youth are out of school. And now, with the current pandemic, the right to education is even less guaranteed for children in many regions. Achieving vaccine equity and securing global vaccine supplies will effectively support every child's right to education.

The WHO report noted in November that vaccinating children and adolescents helps advance other societal goals, and that maintaining education for all school-age children should be a key priority in the epidemic. (UN News, 2021) Vaccinating people aged 3-11 years against the new coronavirus is an important component of building a population-wide immunization barrier and is the most important measure to interrupt the spread of the new coronavirus. Although children are mostly mildly infected with coronavirus, schools are places where populations gather and are prone to localized transmission in the event of an imported outbreak. Vaccination of children against coronavirus can, on the one hand, effectively reduce the risk of morbidity, severe illness and death in children; on the other hand, it can establish an immune barrier in the population of children and guarantee the normal functioning of their studies and lives.

Vaccines save lives," said Marc Vincent, UNICEF Representative in Côte d'Ivoire, Africa. As health workers and other frontline staff are vaccinated, we will see a gradual return to normalcy in life, especially for children." He stressed that "in the spirit of universal health coverage, we cannot leave anyone behind." (UN News, 2021).

However, for parts of Africa, universal access to vaccines is no easy task. On the one hand, local residents' awareness of vaccines is not yet popular, and some local Ethiopian resident said frankly, "I don't understand why I should give an injection for no reason"; on the other hand, some vaccination sites in Africa are scattered, "I have to walk for a day with my children to get vaccinated, and it is easy to miss the best vaccination time. " A local Ethiopian mother said. (CSCN, 2019) In addition, even after overcoming the pressure of long distances, it is not always possible to get an effective vaccination. Vaccine outages, spoilage and failure during delivery and storage are also culprits in reducing vaccination rates.

There have been many local attempts and efforts in Africa to improve the vaccination situation for local children. "I've had other vaccine refrigerators sent to me before, but I don't use them very often. One reason is that we always have power outages here, and the previous refrigerators that were sent to us were not able to maintain the temperature without power; another reason is that they are easily damaged if we don't use them properly, and we can't afford the high cost of repair." Mulunesh Herema, head of a vaccination site, said. (CSCN, 2019).

But at least in Ethiopia, the vaccination environment for local children has changed, and Mulunesh Herema says that this situation has improved since Haier Biomedical's Vaccine Refrigerators entered the country. According to him, Haier Biomedical's Vaccine Refrigerators are completely solar-powered, and the temperature of the refrigerators is guaranteed. There are also local service personnel who come regularly to check the equipment and introduce how to use it properly, and the IoT device carried on the product can also see its operation status in China. Once there is a problem, it can be reported and repaired in time.

Haier Biomedical launched the solar vaccine safety solution to solve the problem of the last mile of local vaccination in Africa by building a complete ecological system of the whole process from production, transportation, distribution, installation and maintenance to guarantee the differentiated advantages of the whole life cycle. To ensure the vaccination of African children and contribute to the achieving of global immunization. In the future, Haier Biomedical will continue to launch a variety of energy supported equipment for energy shortage areas in Africa, cover the whole life service cycle, broaden industrial channels, and contribute"Haier Biomedical's" strength to public health construction in Africa.

Related Products

Active Temperature Controlled RKN Container

- IoT functions
- Robust construction
- Superior temperature uniformity
- Supports AC and DC, switches automatically

Biosafety Screening Swab Booth

- Ergonomic design
- 7 Inch touch screen
- Stable positive pressure
- Microprocessor-controlled fan

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