

## Haier Biomedical Annual Distributor Conference "Together Creating Better Future Through the Intelligent Protection of Life Science"



Haier Biomedical's Annual Distributor Conference was successfully held in Qingdao in May 2023 with the theme of together creating a better future through the intelligent protection of life science, where distributors, partners and key stakeholders from dozens of countries and regions around the world gathered to discuss the future with Haier Biomedical. The conference summarized Haier Biomedical's past achievements and shared its future strategies and plans, to implement its brand development concept in life science and medical innovation with quality product solutions and services.



After 17 years of international "pioneering", Haier Biomedical has grown from a channelized development stage of serving only individual countries and individual projects during the start-up period to a global enterprise focusing on a global localization strategy layout, focusing on strengthening service capabilities, including the No. 1 market share of UN International's global vaccine cold chain and acquiring Haishengjie (liquid nitrogen container), Sandaweiyi (plasma separation and consumables), Jinweixin (medical service system), Kangsheng (consumables), Houhong (medical innovation system) and other companies to accelerate the industrial layout and overall expansion.

Under the wave of digital economy, Haier Biomedical number one focus is the user, this is our overall intention for the betterment of health care for all. This is achieved by taking innovation and development as above a beyond, ploughing deep into the ecological scenario field. With continuous investment to strengthen the capacity by building three key aspects for health care and medical development. First, strengthen integrated marketing capability, based on market and user positioning, by focus on building brand awareness, friendliness, exposure, authority, and reputation. Secondly, enhance professional interaction experience capability. With Qingdao as the headquarters support, to enhance the interactive experience of international users, build five major User Training Centers in Dubai, Nigeria, Singapore, UK, and St. Louis to maximize the brand development with the outcome to enhance the brand value and user value. Finally, relying on the QAS service platform, we will improve the supply chain capability of rapid response, guarantee 100% customer satisfaction, and build a panoramic layout of "International Warehouses + International factories + Local Logistics".

Up to now, Haier Biomedical has innovated five smart scenario solutions, based on five major user channels, including biobank, hospital, disease control centers, blood and plasma stations, universities and research institutes, and pharmaceutical companies, has used digital technology to empower the upgrade of five scenarios, to promote the high-quality development of the industry. The important support for Haier Biomedical to maintain high growth is to adhere to users needs, to create more solutions and scenarios based on "co-creation and win-win solution"; always keep pace with the times and the industry, along the "Equipment + Platform + Service" model innovation with an emphasis as the key to Haier Biomedical delivering the best solutions for users and the market, and continue to lead the global health care and medical industry.

The essence of the digital economy era is to adhere to the user-oriented approach and make digitalization serve users. Specifically in terms of practical applications, to achieve the digital reconstruction of industrial model by integrating digital technologies such as Internet of Things to liberate people, serve people, add value to people and trust each other with a safer and more efficient digital scene. At present, Haier Biomedical products and solutions have entered 135+ countries and regions worldwide, covering tens of thousands of hospitals, biotechnology enterprises, universities and research institutions, disease control, plasma stations, testing institutions and other end-users in the medical and health fields in China and across the globe. Haier Biomedical International has maintained long-term and continuous cooperation with more than 40 international organizations, such as UN organizations, CDC, FDA, Biobanks to name but a few, promoting technical and cultural exchanges between different countries and protecting the lives and health of people around the world.



As a leading company in the biomedical industry, Haier Biomedical is committed to contributing to the global medical business. Haier Biomedical firmly believes that health care services with technological innovation as the core will change the future of humanity. Haier Biomedical takes "Smart guarding life, Making life better" as its mission and keeps launching innovative and forward-looking products to build a global leading medical and health care ecosystem. Even in the global international environment, in the field of biosafety where challenges and opportunities coexist, Haier Biomedical will join hands with global partners to build a sustainable biomedical ecosystem with mutual benefits and mutual assistance, together to create a better future through the intelligent protection of life science.

## Haier Biomedical Products Assists Gabon

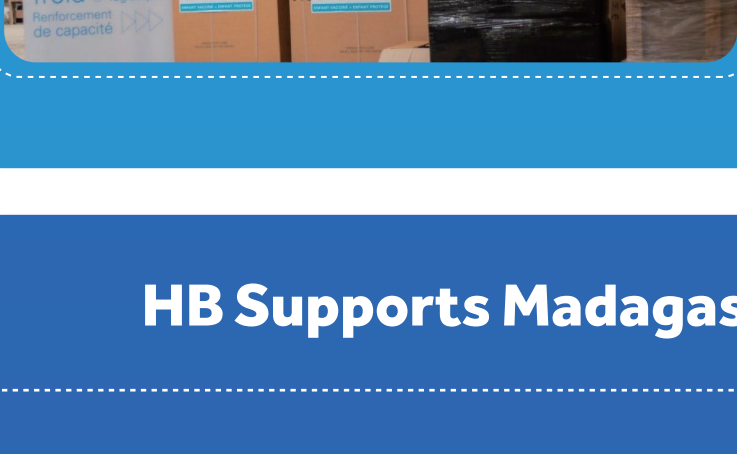
Recently, the Japanese government purchased multiple sets of cold chain equipment from Haier Biomedical through UNICEF, including Cold Room, Solar Direct Drive Vaccine Refrigerator, Transport Cooler and other medical devices, aiming to improve Gabon's vaccine cold chain system. Not only has the safety of vaccine storage been greatly improved, but more and more Gabonese children have the opportunity to be vaccinated.

Local Minister of Health and Social Affairs Dr. Guy Patrick Obiang Nden expressed thanks and introduced that these important equipment of Haier Biomedical are part of the emergency assistance of the Japanese government, mainly to support Gabon's vaccination services and sanitation system to provide Gabonese children with better vaccination protection and improve the overall immunization level in Gabon.



The Ceremony of Haier Biomedical Vaccine Cold Chain Equipment

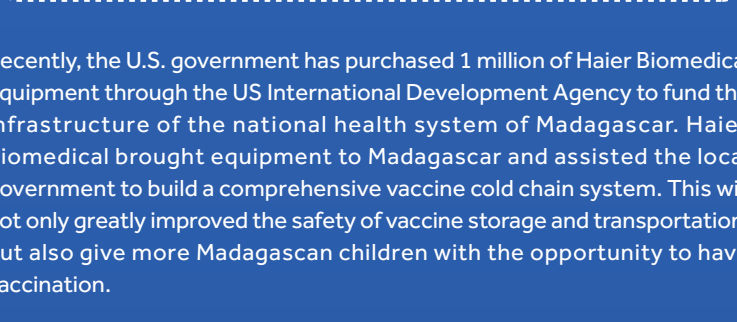
As the world's leading service provider of life science and medical innovative digital scene solutions, Haier Biomedical always cares about global immunity and healthcare. In line with its corporate social responsibility vision of "Smart Life, Shared Future", Haier Biomedical has constructed a life-centric corporate social responsibility model that focuses on leadership, integrity, future, and ecosystem, to give back to society through concrete actions.



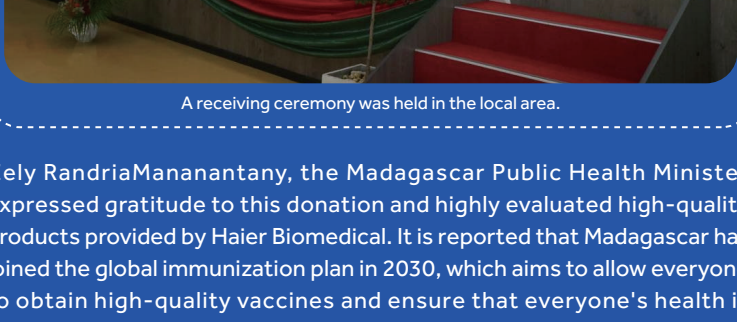
At present, Haier Biomedical's vaccine solutions have been installed in more than 135 countries and regions around the world, making outstanding contributions to improve public health in underdeveloped countries and regions. Also, through the organization's health care for all platform, as well as the Utilization and the core advantages of life science and medical innovation, Haier Biomedical also joins hands with global ecological partners to contribute to social medical public welfare. This core advantage accelerates the popularization of medical technology, promotes inclusivity and sharing of quality medical resources, and continuously implements corporate social responsibilities values, thereby further promoting the construction of a global community of health for all, but also promotes technical and cultural exchanges and cooperation between different countries, actively contributing the Haier Biomedical Power to the world!

## HB Supports Madagascars Vaccine Cold Chain

As the largest island in Africa, and a developing country, Madagascar has suffered from infectious diseases for the years. Plague, measles, malaria, dengue fever and other diseases harms the health of the Madagascan people. The daily average income of some 90% of people in the country is less than two dollars, and it is particularly important to establish a basic guarantee for medical care.

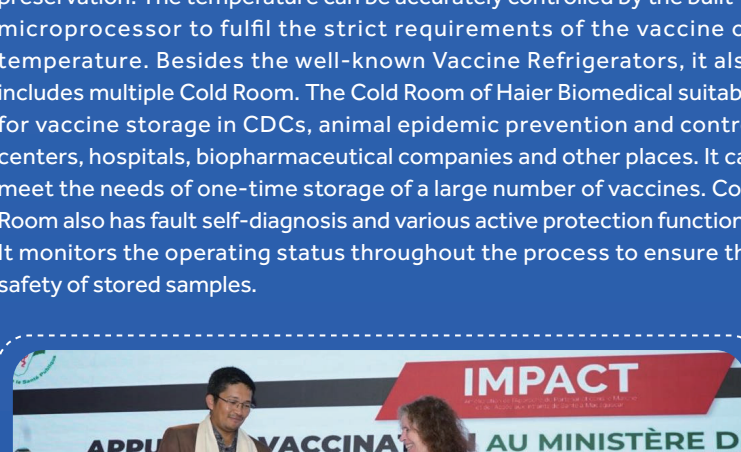


Recently, the U.S. government has purchased 1 million of Haier Biomedical equipment through the US International Development Agency to fund the infrastructure of the national health system of Madagascar. Haier Biomedical brought equipment to Madagascar and assisted the local government to build a comprehensive vaccine cold chain system. This will not only greatly improved the safety of vaccine storage and transportation, but also give more Madagascan children with the opportunity to have vaccination.



A receiving ceremony was held in the local area.

Zely RandriaMananantany, the Madagascar Public Health Minister expressed gratitude to this donation and highly evaluated high-quality products provided by Haier Biomedical. It is reported that Madagascar has joined the global immunization plan in 2030, which aims to allow everyone to obtain high-quality vaccines and ensure that anyone's health is guaranteed.



In this project, the Vaccine Refrigerators are specifically used for vaccines preservation. The temperature can be accurately controlled by the built-in microprocessor to fulfil the strict requirements of the vaccine on temperature. Besides the well-known Vaccine Refrigerators, it also includes multiple Cold Room. The Cold Room of Haier Biomedical suitable for vaccine storage in CDCs, animal epidemic prevention and control centers, hospitals, biopharmaceutical companies and other places. It can meet the needs of one-time storage of a large number of vaccines. Cold Room also has fault self-diagnosis and various active protection functions. It monitors the operating status throughout the process to ensure the safety of stored samples.



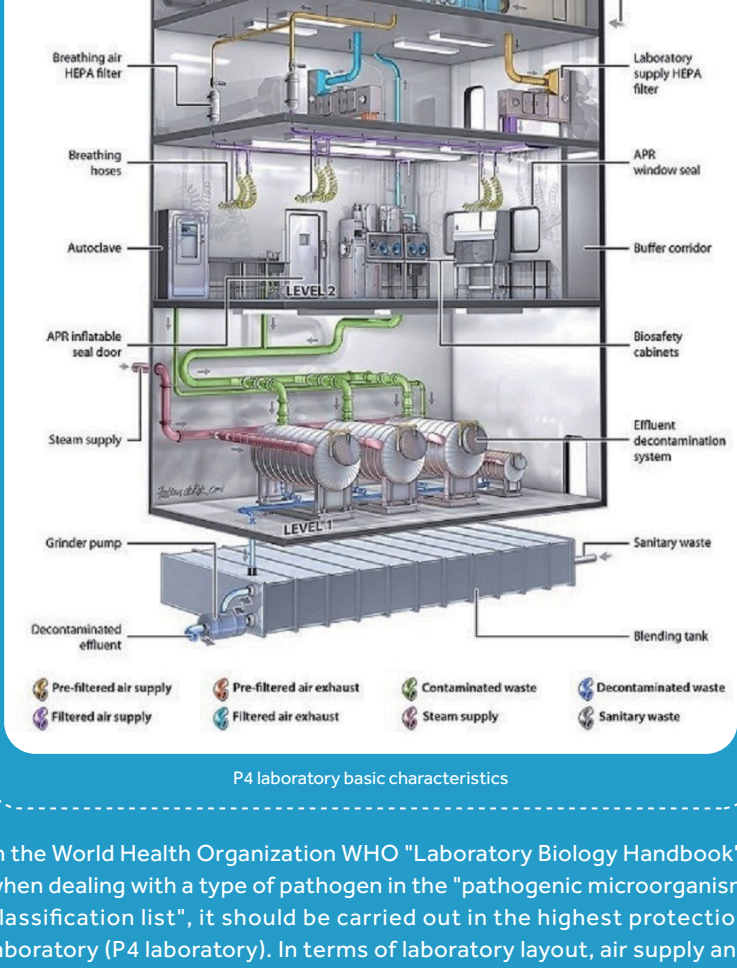
As the world's leading life science and medical innovation digital scenario solution provider, Haier Biomedical always cares about global immunity and health. As of now, Haier Biomedical Vaccine Solutions are found in 78 countries and regions including the "the Belt and Road" initiative. Related technologies serve 45 million children in the world each year, helping low-income countries' immune vaccination rates increase from 30% in 2015 to 57%. Haier Biomedical supports the development of local public health, but also promotes technological and cultural exchanges and cooperation between different countries. Actively contribute the power of Haier Biomedical for the global medical and health.

At present, Haier Biomedical has established cooperative relationships with more than 40 international organizations. Moving forward, Haier Biomedical will continue to invest, develop, and innovate in life science and medical digital ecosystems for the long-term benefit of global health care. Haier Biomedical does this to help build a community of human health to make life better, through the intelligent protection of life science!

## Demystifying the Biological Safety Research Lab

With the global outbreak of the COVID-19, the vaccine industry was pushed to forefront and knowledge reached the public about biosafety. Scientific researchers have also begun to accelerate virus research and drug testing. So, what are the laboratory of biological experiments? What are the differences between them and ordinary laboratories?

The laboratory is a necessary place for scientific research. According to the level of risk, including the infectious and harmfulness of the original infectious diseases, the international biological laboratory will follow Biosafety level, divided into P1 (Protection level 1), P2, P3 and P4 levels. P1 and P2 levels are the basic laboratory, mainly research on the pathogenic factors that have low and middle risk to human body, animals and plants, and the environment. P3 and P4 levels are protective laboratories, which are suitable for handling highly harmful pathogenic factors to human, animals and plants, or the environment. Among them, the P4 laboratory specially treats unknown and highly dangerous pathogenic factors like Ebola virus without prevention and treatment measures. Generally, it is a separate building with four-story structure commonly. The first floor is sewage treatment and guarantee equipment, the second floor is the core experimental area, the third floor is the filter layer of the exhaust pipeline, and the fourth floor is an air-conditioning equipment and the exhaust pipeline.



P4 laboratory basic characteristics

In the World Health Organization WHO "Laboratory Biology Handbook", when dealing with a type of pathogen in the "pathogenic microorganism classification list", it should be carried out in the highest protection laboratory (P4 laboratory). In terms of laboratory layout, air supply and exhaust systems, environmental parameters, etc., there are special requirements for the fourth-level biological safety laboratory. You must use a Class III Biological Safety Cabinet or a Class II Biological Safety Cabinet plus positive pressure protective clothing. Among them, the Class III Biological Safety Cabinet is designed for the pathogenic microorganisms of the level of four biological safety (BSL-4). It is suitable for high-risk operations on pathogenic virus, pathogenic bacteria, fungi, etc., and can provide maximum protection for laboratory operators, samples, and environment.



According to the product manager from Haier Biomedical Safety Cabinet department, Haier Biomedical's Class III Biological Safety Cabinet is designed for P3/P4 laboratory. With 304 stainless steel inside and outside the cabinet, which is resistant to corrosion and easy to clean. And an innovative unit with double DC fans ensuring low noise, energy consumption and high reliability. Using a fully enclosed design structure, this structure can completely isolate the operator from potentially harmful substances. It can not only prevent scientific researchers' infection, but also effectively avoid cross-infection of samples. It is currently the highest-level biological safety cabinet. When performing experimental operations, the interior of the Class III Biological Safety Cabinet will keep negative pressure, which can ensure the safety and stability of biological experiments. It is an ideal product for biological safety testing tests.



Because the infectious microorganisms study in the P4 laboratory is usually fatal high-risk viruses, there are no effective treatment methods and no vaccines. Therefore, some insiders call the P4 laboratory as "Devil's Lab". According to international practice, this is currently the only safety place for humankind to experiment with live viruses such as Ebola virus. Therefore, the P4 laboratory is a "double-edged sword". Its application may benefit humans, but it may also bring various disasters to humans.



P4 laboratory protection suit

Illegal omissions and accidents in the management of P4 laboratory can not only lead to the infection of laboratory staff, but also cause environmental pollution and large-scale people infections. It is not uncommon for accidental infection in laboratories at home and abroad. In severe cases, it is required to slaughter thousands of experimental animals and even cause laboratory staff deaths. The more irregular management, the worse the protection conditions, and the more possibility of accidents. Therefore, through the prevention and control of biological hazards is the fundamental task of biological safety, to maintain the health and ecological environmental safety of the country, the economy, people's health, and ecological environment.

More secure, efficient and more accurate experiments are of decisive significance for the research of high-risk viruses. Haier Biomedical's Class III Biological Safety Cabinet provides the highest level of safety protection for high-risk experiments in P3 and P4 laboratory, help scientific researchers make more achievements in viruses R&D, and contribute to the protection of public health.

## 2022 Corporate Social Responsibility Report

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Intelligent Protection of Life Science