Haier Biomedical Intelligent Protection of Life Science

— July, 2023 — Newsletter

Haier Biomedical Platelet Incubator with Agitator Wins Bid for Chilean Blood Bank Project!

As one of the driest regions in the world, Chile has a homogeneous economic structure, significant reliance on external resources, and a prominent energy shortage problem. However, Chile is increasing its investment in the healthcare industry annually. As of September 1, 2022, all Chilean residents with public health insurance will receive free medical services from public hospitals. The implementation of this policy has put the Chilean healthcare system to the test, particularly in terms of the preservation of blood products. Platelets are a type of blood component with aggregation and adhesion properties, which require storage in a 24-hour shock at a temperature of between 20°C and 24°C, failing which they may accumulate and become inactive, making it particularly challenging to preserve platelets.





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Such an issue has created opportunities for collaboration between Haier Biomedical and Chilean Healthcare. The Haier Biomedical Platelet Incubator with Agitator has been recently installed in the blood bank of San Juan de Dios Hospital in Santiago, following the successful bid by Haier Biomedical for the Chilean blood bank project. In response, the hospital spoke highly of the quality and performance of the equipment, stating that it appears sturdy and satisfies the requirements for storing products that require special handling, such as platelets.

At the same time, Haier Biomedical has responded to the local market demand, improved communication with local users, and taken into account the requirements of each stage in the product usage process. This ensures blood safety and significantly contributes to the Chilean medical industry.

Haier Biomedical Accelerates Global Expansion in Pursuit of New Opportunities

Over the past month, Haier Biomedical has been actively engaged in various global events, including participating in Gavi's Global Vaccine Impact Conference, bringing scenario solutions to the SCO Investment Expo, and attending the CEO Roundtable of the United Nations Global Compact, fulfilling its commitment to develop technological advancements while prioritizing users, and aligning with its vision of "making life better". Through these events, the company is able to showcase Haier Biomedical's expertise in intellectual manufacturing and exchange future prospects with global industry experts. Now, following the footsteps of the company's creators, let's review the highlights of their efforts in the active expansion of its international presence!

♦ Gavi's Global Vaccine Impact Conference

From June 13 to 15, the Global Alliance for Vaccine Immunization (Gavi) held its Global Vaccine Impact Conference in Madrid, Spain. The conference's theme, "Raising Generation Immunity", celebrates GAVI's achievements in protecting an entire generation of children from potentially deadly infectious diseases since 2000.

The conference brought together world leaders and immunization experts, Mr. Guangsheng Wang, the Vice General Manager and Mr. Enrique Wang, the Africa & UN Director of Haier Biomedical were invited to participate in the conference to assess GAVI's progress in achieving key goals and developing strategies to address future challenges and opportunities.

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♦ SCO Investment Fair

On June 15, the Shanghai Cooperation Organization Industry Chain Supply Chain Forum and 2023 SCO International Investment and Trade Fair was held in Qinghai, and Haier Biomedical made an entrance with scenario solutions in the life science field, showcasing the fruitful results of friendly cooperation with SCO countries.

The expo, themed "Gathering at SCO - Better Life", attracted 330 exhibitors from 34 countries and regions along the Belt and Road. On that day, Kyrgyzstan Deputy Prime Minister Edil Baisalov visited the exhibition and expressed his recognition and appreciation for Haier Biomedical's product solutions and quality. At SCO, the company leverages its potential in science and technology and contributes to building a better life.



Deputy Prime Minister of Kyrgyzstan visiting Haier Biomedical's booth.

◇ UN Global Compact CEO Roundtable

On June 25, the UN Deputy Secretary-General's visit to China and the UN Global Compact CEO Roundtable took place in Shanghai. The closed-door CEO Roundtable focused on the theme of "Artificial Intelligence and Technology Innovation for the Sustainable Development Goals: The Role and Actions of Business", aiming to explore the balance between the



Wang Guangsheng, Vice General Manager of Haier Biomedical, delivering a speech at the conference.

At the conference, Mr. Guangsheng Wang, the Vice General Manager of Haier Biomedical, shared the company's efforts in exploration of solar electrification and solar cooling technology, as well as its pioneering measures to reduce carbon emissions. Currently, Haier Biomedical's product solutions have expanded to 78 countries and regions along the Belt and Road, among which are solar-powered vaccine refrigerators that have served 45 million school-age children annually, which have helped nearly double immunization rates in low-income countries. The company's pioneering exploration has been unanimously recognized by leaders and immunization experts of the participating countries.



This Global Vaccine Impact Conference is an important milestone in GAVI's current strategic period. As a long-term partner of GAVI, Haier Biomedical will continue to work with the organization to help promote equitable and accessible vaccination for a better life.



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tremendous opportunities created by the current technological revolution and the unprecedented new challenges to achieve the UN Sustainable Development Goals by 2030, in which Haier Biomedical has been invited to participate as a member of the United Nations Global Compact.

In her keynote address, Amina J. Mohammed, Deputy Secretary-General of the United Nations, emphasized that, "Like many powerful technologies, Al must be guided with human values, human solidarity, and human wisdom. If we are to overcome the climate crisis and make a decisive breakthrough towards a new, more sustainable, and equitable 'normal', we need to harness the power of disruptive technologies like Al."

Guangsheng Wang, Vice General Manager of Haier Biomedical, delivered a speech at this roundtable as a representative of member organizations, highlighting Haier Biomedical's pioneering practices in promoting new technologies to contribute to sustainable development goals.

"Haier Biomedical is one of the first enterprises to focus on green energy conservation, involving various fields such as hydrocarbon refrigerant research and development and industrialization and popularization, innovative environmental protection foaming technology, the development of solar direct drive refrigeration technology, water conservation and noise reduction, carbon reduction and emission reduction, and supplier management, and has been awarded the title of national green factory. The company has not only fulfilled Its social responsibility, but also reaped economic benefits.



In promoting the innovation of artificial intelligence technology, Haier Biomedical has taken an innovative path of IoT digital scenario solutions, which encompasses various fields including smart lab, smart biospecimen bank, smart public health, smart blood, and smart hospital. These digital scenario solutions align effectively with the UN's sustainable development goals."



It is important to always remember the initial inspiration and practice effective planning for long-term success. Haier Biomedical has always been based on user needs, and is committed to deepening scenario solutions, exchanging experiences gained, discussing the new industry blueprint, and befriending international partners, both new and old. These enable the company to create a win-win ecosystem that promotes life sciences and medical innovations, ultimately improving quality of life.

Solar Energy may Become a New Trend in the Medical Equipment Industry!

Due to global climate change and escalating energy demands, many countries are gradually adopting renewable energy sources, particularly solar energy, which is a natural energy source. With its unique advantages of abundant reserves and non-polluting nature, solar energy has gained global recognition as one of the most competitive energy sources for the future. At present, the use of solar energy has witnessed a significant rise in the operation of medical equipment, which has brought benefits to economically deprived and energy deficient regions. The application of solar energy not only powers local medical equipment, but also ensures the functioning of hospitals in the event of natural disasters or power outages.

At present, the carbon-neutral solar vaccine refrigerator pioneered by Haier Biomedical has surpassed the insulation capacity of foreign brands by 1.6 times in extreme environments, improved upon the international standards, and features a battery-free green design that extends its lifespan from 5 years to over 10 years, allowing it to adapt to harsher environments and only require more straightforward installation and maintenance. Haier Biomedical's solar vaccine refrigerator maintains an internal temperature of 2°C to 8°C, which is accurately indicated by the solar temperature monitor, even in an environment temperature of 5°C to 43°C. The refrigerator also has an extended duration of internal insulation of up to 160 hours or more, which ensures the efficient use of resources.

Currently, vaccination rates in certain regions, including Africa and South America, are significantly lower than those in other parts of the world, which can be attributed to factors such as unstable or lack of electricity, inadequate infrastructure, and inconvenient transportation. As an



Based on statistical data, approximately 800 million people across the globe currently still lack access to electricity, significantly impeding the development of healthcare systems in energy deficient regions. Particularly in remote areas of India and other economically underdeveloped countries, solar energy is of great importance in the modern healthcare industry, and has emerged as a powerful tool for alleviating the pressure on medical electricity.

Apart from India, solar energy equipment is gaining popularity in the development of equipment for the healthcare industry worldwide, becoming an effective tool to solve the issue of electricity consumption in healthcare facilities. Many countries have initiated the exploration of employing solar energy equipment in medical facilities to increase their self-sufficiency, efficiently save energy costs, and achieve low carbon emissions, which are made possible due to the technological advances and the development of renewable energy. To this end, Haier Biomedical is firmly committed to green products and solutions. Driven by green technology innovation, it is dedicated to achieving green ecological development through the incorporation of green science and technology into its development process; among others, it self-engineered a series of solar-powered equipment, such as the solar vaccine refrigerator and solar blood refrigerator. Now, it has made its presence in 143 countries and regions along the Belt and Road, consistently providing technical support for human health development and accelerating the development and application of green scenarios.

In 2022, Haier Biomedical achieved an annual power generation of 1.489 million kWh from its photovoltaic power generation equipment, which reduced carbon emissions by 865.69 tons. In particular, its vaccine refrigerators from the solar direct drive solution reduced carbon emissions by 109,500 tons annually, which is comparable to the carbon neutralization of 4500 acres of mature forests. With a focus on implementing its own green practices and promoting its factories' green and smart development, Haier Biomedical is committed to establishing green factories that can serve as an industry demonstrative model, and empowering carbon reduction practices through technological innovation, becoming the industry leader in the development of green transformation.

important partner of UN International, Haier Biomedical has developed comprehensive vaccine solutions that cover the vaccines' entire life cycle, successfully resolved the "last mile" of vaccination, and created a whole-process solution for vaccines. This also protects all aspects of transportation, storage, vaccination, and monitoring throughout the vaccination process. With a focus on its "Health at Your Fingertips Wherever the Sun Shines", Haier Biomedical is committed to safeguarding lives through its Sunshine Vaccine Initiative and establishing a global immunization business. This solution not only improves vaccination rates in underdeveloped regions, but also improves local health standards and ensures carbon-neutral technology for environmental development.

During the first half of this year, Haier Biomedical's solar-powered vaccine refrigerators played a crucial role in improving the level of immunization in Burkina Faso, Gabon, and Madagascar. This equipment filled the vacancy in Burkina Faso's cold chain preservation of vaccines, which helps improve immunization of the country's residents, contributes to Gabon's health system and provides better vaccination coverage for the country's children, and helps build the infrastructure of Madagascar's national health system and assists the local government in establishing a comprehensive vaccine cold chain system. It also established a solar-powered mobile cabin at the Pasteur Institute, which helped to address the lack of basic immunization in less developed countries and regions due to the absence of electricity, thereby promoting fair access to global health.



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Today, solar-powered medical equipment is playing a vital role in improving healthcare conditions and saving lives across the globe. With the decreasing cost of solar technology and advancements in medical equipment innovation, this niche market is expected to grow, and will have a significant impact on saving the lives of hundreds of millions of people while reducing carbon emissions and improving the ability to respond to both natural and human-caused disasters. It is believed that in the foreseeable future, there will be an increase in the implementation of solar energy on medical equipment, enhancing healthcare accessibility and improving quality of life.

Haier Biomedical continues to enhance our capability for a green planet to make life better through the intelligent protection of life science – creating balance in the need for medical innovation while protecting our planet.

Products + Services: Haier Biomedical Launches Vietnam's First Constant Temperature and Humidity Chamber

The medical device market in Vietnam, a country situated in Southeast Asia, heavily depends on imports, accounting for about 90% of the market, with an average annual growth rate of 13.1% since 2014. Vietnam is also currently one of the fastest-growing pharmaceutical markets in the whole of Asia. In 2020 alone, the country's pharmaceutical markets reached US\$10 billion, with about 75% of finished pharmaceutical products being manufactured domestically. This robust pharmaceutical market has also created a huge demand for medical devices.

The Climate Chamber is widely used for bacteria, fungi, and microorganisms. It can not only help provide necessary enzymatic reactions, ligation reactions, and embedded culture sites for the pharmaceutical industry, but can also enable drug stability testing under different climatic conditions with its adjustable temperature and time settings that have proven to be a source of great convenience for industry experiment preparation. Due to its ability to ensure the accuracy of experimental results and significantly reduce labor costs, it has become highly sought-after equipment in the pharmaceutical industry and laboratories today.





in a MEDCEN JSC in Long An Province, Vietnam

A week after the product's arrival and installation in Vietnam, the company personnel responsible for equipment thoroughly tested and inspected the product and gave the highest praise. "The 10-inch LCD screen offers an intuitive data display and highly sensitive touch response. The machine has a double support frame on the internal shelf, compact and solid cabinet design, and is overall sturdy construction and fully meets our usage requirements."

MEDCEN JSC is a new pharmaceutical company in Long An Province that has completed the construction of its plant and laboratory in 2022 and put into operation in 2023. As the world's leading life science and medical innovation digital scenario solution provider, Haier Biomedical has secured a partnership with MEDCEN JSC as their preferred supplier, and its Climate Chamber HHS-256, designed with intelligent LCD screen and IoT module, has been favored by MEDCEN JSC and put into use in their QC lab.



Users taking photographs of product details

With a focus on the "Product + Service" model, Haier Biomedical expands its product categories based on market demand, improves its global network layout driven by science and technology, consistently introduces innovative and forward-thinking products, and aligns with its mission of "Make Life Better" through the intelligent protection of life science. The company also strives to build a global leading medical health ecosystem, ensuring the well-being and health of people around the world.

Haier Biomedical: The National Brand, the World Brand

The market economy has stepped up, and with Haier Biomedical's brand has become very quickly stronger and now a leader in the global medical sector. In order to deepen people's awareness of Chinese brands, and to enhance the brand development awareness, "Chinese Brand Day" was launched by the Chinese State Council, which aims to show the latest results of brand development in all directions, to strengthen public awareness and spread, and tell the Chinese brand stories.



Haier Biomedical was founded in 2005. It is a life science and medical innovation digital scenario service provider based on the transformation of the Internet of Things. Technology is the source of the development of Haier Biomedical development. With the mission of guarding the health and safety of the public, Haier Biomedical always adheres to technology leadership, continues to deeply cultivate in the fields of life science and medical innovation, promotes original technology leadership and ecological co-creation, strives to build a new benchmark of industry "intelligence", and help the construction of the modern industrial system. Adhering to the concept of "respect life", with users at the center of the why we do what we do, and creating an integrity ecosystem with all stakeholders, carry out corporate governance in accordance with the highest standards of business ethics and corporate governance requirements, corporate governance is strictly preventing corporate risks. Be honest and compliance operation, at the same time, strictly control the quality, establish high-quality/high requirements and high standards of supply chain, serve the cause of life science and medical innovation with actual action.

We are all full of challenges and opportunities in modern society, with Haier Biomedical adhering to the "RDHY" model to achieve high-quality development, focusing on ecological transformation, digital transformation, and technology self-reliance on strategic height, rapid recognition, and response, breaking down technological barriers, by building a safe and smart base for the medical healthcare sector. Haier Biomedical continues to expand the application for different products and solutions, use independent research and development technology, high-end equipment and smart IoT solutions for complete process, complete full cycle, covering all scenarios. Standing from the perspective of harmonious coexistence of people and nature, Haier Biomedical adheres to the innovation of green low-carbon technology, to further improve the carbon reduction path of the whole life cycle, lead the industry's green transformation, and make life better.

After nearly 20 years of development, Haier Biomedical has withstood the test of the market, both domestically and abroad. We firmly believe that great brands are based on great products. Only by making superior products can the brand have a long-term vitality. With this vision, we continuously provide a smart solution for the construction of a healthy China and a strong country in science and technology. In order to build a community of human health, we must continue to work hard, achieve life and health. However, the real Chinese brand should not be limited to domestic China, but also to have the courage to expand across the globe. Haier Biomedical through the advantages of scientific and technological innovation, now has the brand awareness and power to influence to promote the development of the global medical industry. Countless efforts from the team have and will continue to create world-leading medical technology products, in order to achieve global medical fairness and contribute Haier Biomedical power across all regions for the betterment and healthy life for all.

Currently, Haier Biomedical's products and solutions have been utilized in over 135 countries and regions, and built partnerships with more than 40 international organizations. Haier Biomedical has also established local training centers in Dubai, Nigeria, Singapore, and the UK as examples.

Made in China, China Innovation, and Chinese Standards need each Chinese brand to present and show our overall technologically advanced products to the world. Behind this, Chinese brands are moving towards the world stage in a form of cultural power. Haier Biomedical is giving back to the society with practical actions, providing people with better products and services for people around the world, actively undertaking the responsibility of enterprises, and continuously improving multi-level and multi-chain service capabilities, better empowerment of industrial progress for all.

In 119 BC, along the vast Gobi and desert settings, Zhang Jian lead the Chinese brand to go abroad for the first time. In the early Ming Dynasty, with the mighty cloud sails and stormy waves, Zheng He went to the West seven times to spread the Chinese brand again. Today, Haier Biomedical, with creation and innovation, carrying extraordinary courage and strength, again, is bringing Chinese wisdom and Chinese brands to the world again!

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