Dengue fever, rabies, and other neglected tropical diseases (NTDs) impede economic growth and human development in impoverished areas. The photo shows a patient being treated for mycetoma. The GHIT Fund has invested in a project undertaken by Eisai Co., Ltd. to develop therapeutic drugs for the disease.
LAMECK ODODO-DNDI

PUBLIC-PRIVATE FUND BOLSTERS GLOBAL PARTNERSHIPS

IN FIGHTING INFECTIOUS DISEASES

Neglected infectious diseases threaten the lives and health of multitudes in the world's low- and middle-income countries. The Global Health Innovative Technology Fund, based in Japan, promotes global partnerships between public and private actors in developing drugs, vaccines, and diagnostics, thus contributing to healthcare systems that leave no one behind.

Infectious diseases such as neglected tropical diseases (NTDs), tuberculosis, and malaria greatly affect and threaten the health and lives of more than a billion people in the low- and middle-income countries of the world. However, research and development into drugs, tests and vaccines that target those infectious diseases have not been tackled well in high-income countries, where they are less prevalent, as the return on investment has been deemed to be low. Instead, medical research in these countries has tended to focus on other diseases such as cancer.

The Global Health Innovative Technology (GHIT) Fund was established in 2013 as a unique global public-private fund with the goal of making the world a place where adequate medical treatment is available to all, promoting the development of drugs, vaccines, and diagnostics to treat and prevent infectious diseases. Its funding partners include the Government of Japan; the Bill & Melinda Gates Foundation; Wellcome, a global charitable foundation; and various Japanese and global pharmaceutical companies. Up to now, a total of 170 product development partners have participated in a system of open innovation that generates new countermeasures by linking Japan's leading technologies with overseas resources and networks.

KUNII Osamu, MD, MPH, PhD, CEO of the GHIT Fund, has worked for UNICEF and the Global Fund to Fight AIDS, Tuberculosis and Malaria, and has strived for improved global health in such fields as infectious disease control, maternal and child health, and humanitarian relief. He is committed to improving access to medical technology and services for the countless number of people underserved or left behind in over 130 countries. He regards the GHIT Fund as a way to provide support by positioning domestic and overseas partners in a win-win relationship.

"The GHIT Fund emphasizes partnerships," says KUNII Osamu, CEO of the fund. "Drug development is extremely costly and requires years to complete. The success rate is low for single businesses and universities. It is important to accelerate the process and improve the success rate by strengthening cooperation."

In the decade since its inception, the GHIT Fund has invested 29.1 billion yen in a total of 118 projects. Clinical trials are underway for 12 of them. One involves the development of a drug to treat mycetoma, an infection frequently caused by bacteria or fungi picked up while walking barefoot. Eisai Co., Ltd., Japan had already developed a drug for onychomycosis, which is expected to be also effective against mycetoma. A partnership with the Drugs for Neglected Diseases initiative (DNDi), an international NPO, was thus initiated and became the basis for an ongoing effort to develop a drug that is safer and more effective than existing ones.

The first GHIT-funded drug project to apply for approval in clinical use involves a pediatric drug for schistosomiasis (bilharzia), an infection caused by exposure to contaminated water, and which can damage internal organs. An application for the drug was submitted to the European Medicines Agency in December 2022. Merck KGaA, a pharmaceutical company based in Germany, had already provided the world with an effective therapeutic drug, but a pediatric version of the drug was yet to exist. Oral tablets for adults were not only too large—they were also bitter and difficult to administer to infants and young children. Astellas Pharma Inc. of Japan, on the other hand, possessed the necessary technology to manufacture small pills without the bitter taste, which makes them easier for preschool-aged children to swallow, and collaborated with Merck to develop a pediatric drug for schistosomiasis. If approved, the drug may bring relief to more than 50 million children suffering from the disease.

"Japan prioritized measures against infectious diseases as one of the important agenda items at the G8 Kyushu-Okinawa Summit in 2000. Since then, the country has continued to emphasize the importance of global health," Kunii explains. At the G7 Ise-Shima Summit in 2016, the promotion of universal health coverage—the idea that everyone, everywhere, should be able to access quality health services—was presented for the first time as a major agenda item. "Japan has continued to assert that an emphasis on health would increase the resilience of communities and reduce poverty," says Kunii. At a press conference following the G7 Hiroshima Summit in May of this year, Prime Minister KISHIDA Fumio mentioned that Japan planned to make contributions totaling approximately 7.5 billion U.S. dollars from the public and private sectors toward the enhancement of global health, including a 200 million U.S. dollar pledge to the GHIT Fund by the government.

In addition to AIDS, malaria, and tuberculosis, NTDs are rampant in developing countries. The GHIT Fund was established as a means of linking Japanese technology and innovations with the development of new tools to combat those diseases.

Going forward, the GHIT Fund will further accelerate the development of various drugs, vaccines, and diagnostics, with additional plans in place to fortify efforts and partnerships to deliver the products resulting from that work to the people in need by ensuring equitable and timely access. Kunii concludes, "The GHIT Fund will be the leverage and catalyst to make our world better. We want to be a driving force for a greater future."