



Continuing the Legacy of Dr. Hideyo Noguchi

A Japanese expert and researchers
at the Noguchi Memorial Institute
for Medical Research

Photo: Courtesy of Akio Izuka/JICA

The Noguchi Memorial Institute for Medical Research (NMIMR), located in the Republic of Ghana, conducts research and examination of infectious diseases requiring a high level of technology and knowledge. It is highly esteemed internationally, and makes a great contribution to the control of infectious diseases in West Africa.

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IN 2006, the Japanese government established the Hideyo Noguchi Africa Prize to publicly honor individuals and groups with prominent achievements in the areas of medical research and medical services to combat infectious and other diseases in Africa. This prize was awarded to two people at the Tokyo International Conference on African Development (TICAD) in 2008 and to two more people in 2013. Another two people will be awarded the prize at TICAD7.

Dr. Hideyo Noguchi, for whom the prize is named, is a bacteriologist who is very familiar to Japanese people for his portrait on the obverse of the current 1,000-yen note. Dr. Noguchi, born in 1876 to a poor farmer in Fukushima Prefecture, Japan, studied very hard, became a doctor, and went to the United States in 1900. He achieved many breakthroughs in the study of syphilis and yellow fever at the Rockefeller Institute for Medical Research, and was nominated several times for the Nobel Prize. But Noguchi died

All photos: Courtesy of JICA

of yellow fever in 1928 at Accra in the British-colonized Gold Coast (currently Ghana) in West Africa, where he had moved to research the disease.

Accra is home to the Noguchi Memorial Institute for Medical Research (NMIMR). The NMIMR was founded as a biomedical research facility at the University of Ghana in 1979 through Japanese grant aid. The institute has nine departments, including virology, bacteriology and parasitology, and currently has about 400 staff, including about 50 researchers.

“The institute staff respect Dr. Noguchi deeply and they have a strong sense of pride in working in the institute,” says Aya Yagi of the Human Development Department of the Japan International Cooperation Agency (JICA).

Since the establishment of the NMIMR, JICA has provided extensive support, such as the construction of laboratories, provision of research equipment, sending Japanese experts, and offering training programs for Ghanaian researchers in Japan, in cooperation with the Ghanaian government. Currently, the NMIMR is regarded as a center of excellence in infectious disease control in West Africa, and also within Ghana. When the Western African Ebola epidemic spread throughout West Africa in 2014, the institute examined about 200 suspected cases of infection inside and outside the country. In addition, the institute’s researchers were sent to Guinea as technical officers of the World Health Organization (WHO), and contributed to contain the epidemic in the country.

The NMIMR is also highly esteemed internationally for its research achievements, conducting collaborative research projects with many organizations, such as the Danish International Development Agency (DANIDA), Bill & Melinda Gates Foundation, the National Institutes of Health, and also Japanese organizations.

Currently, backed up by JICA and the Japan Agency for Medical Research and Development (AMED), the NMIMR is conducting a collaborative project for strengthening a disease surveillance system aimed at containing unknown infectious diseases and preventing epidemics of known infectious diseases (cholera, meningitis, etc.) with Japanese research institutes, including the Institute of Medical Science at the University of Tokyo. In this project, the NMIMR distinguishes the pathogens of patients with symptoms of diarrhea collected from project target areas and also analyzes intestinal bacterial flora. Intestinal bacterial flora are said to be closely associated with infectious diseases and related research is being conducted around the world. Along with this basic research, the NMIMR grasps the conditions of the outbreaks of infectious diseases and strengthens a surveillance system of shared information in collaboration with the Ghana Health Service (GHS), the organization under the Ministry of Health of Ghana, which has jurisdiction over and implements hospital treatment and disease control. The project is aimed at constructing surveillance system models so that



Participants in the inaugural training program for infectious disease control at the NMIMR, held January to March 2019
Photo: Courtesy of JICA

Ghana will be able to establish a system for perceiving signs of an infectious disease epidemic without delay and for urging the nation to be vigilant.

In March 2019, Noguchi Advanced Research Laboratories opened as a new research facility within the NMIMR through the support of JICA. The NMIMR, which is forty years old, was facing a shortage of research space and the obsolescence of facilities. But world-class experiment facilities and equipment



Opening day of the Noguchi Advanced Research Laboratories (right), March 2019
Photo: Courtesy of JICA

were established in the new research center, which enables researchers to execute advanced research using state-of-the-art research equipment in an environment safer than anything seen before. In particular, the NMIMR is expected to be a hub for research on infectious diseases, infectious disease control, and training for capacity development in West Africa. From January to March 2019, the NMIMR implemented its first training program for clinical examination technicians in four countries, including Sierra Leone and Liberia, for infectious disease control in West Africa. The new research center will implement the training programs for clinical examination technicians engaging in the diagnoses of infectious diseases in the same four countries by 2021.

Yagi says, “The knowledge and insights obtained through the NMIMR, such as an infectious disease surveillance system, can also be used extensively for infectious disease control in Japan. Forty years after its foundation, the NMIMR has become Japan’s research partner.”

The legacy of Dr. Noguchi, who devoted his life to researching infectious diseases, will be handed down to future generations. 