

Results report

1. Title of Research and Development : An innovative continent-wide NTD surveillance network based on simultaneous multiplex assay technology in Africa
2. Principal Investigator : Satoshi Kaneko (Department of Ecoepidemiology, Institute of Tropical Medicine, Nagasaki University, Professor)
3. Counterpart Principal investigator : Matilu Mwau (Kenya Medical Research Institute (Kenya))

4. Results of Research and Development:

Item 1) Development and evaluation of NTD multiple assay antigens for regional optimization

As a preparation for antigen developments to be differentiated into four types of filariasis (*Wuchereria bancrofti*, *Loa loa*, *Mansonella streptocerca* and *Onchocerca volvulus*), which have become endemic in the Central African region, we have initiated information gathering and are producing a proposal in order to further our analysis on this endemic in collaboration with the University of Kinshasa as well as local Congolese (DRC) governments. As it is essential to obtain serum from infected and uninfected residents, we have approached local Congolese governments where filariasis has become an epidemic and started a collaborative work to investigate the antigen developments.

Item 2) Systematization, development and dissemination of NTD surveillance program

To launch the research project in Kenya, Egypt, Democratic Republic of Congo, and Nigeria, memorandum of agreements were exchanged with the institutes corresponding: KEMRI (Kenya), E-JUST (Egypt), University of Kinshasa (DRC), and University of Nigeria (Nigeria). For survey system development, discussion has started for the development of an automatic recognition system for housing structures in rural areas of Africa with the Center for Spatial Information Science at the University of Tokyo. A website has launched for this project to facilitate sharing information (<http://panafrican-ntd.org>).

Item 3) Development of African network on community diagnosis for multiple NTDs

An office for the PanAfrican Network to link African areas has been set up in the premise of KEMRI. Furthermore, preparation of a symposium or forum corresponding to TICAD 6, which will be held in Nairobi by the Japanese government has started.

Item 4) Sharing information on the project and preparation for the next step

On January 15, 2016, a symposium in Nairobi was organized with more than 200 participants from 10 African countries, as well as from Japan and Kenya to share scientific and public health information among the participants. As mentioned above, a website has also been launched to share information on this project. To establish a relationship with international organizations, discussions have been started along with the preparations for the symposium corresponding to TICAD 6.