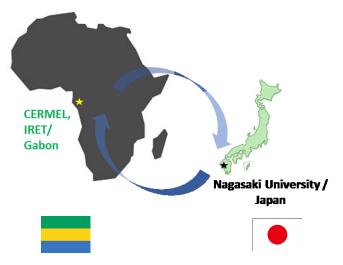
# **SATREPS** For the Earth, For the Next Generation



# **SYMAV**

The project for establishment of laboratory surveillance system for viral diseases of public health concern



## Training

**Molecular Biology Training** 



From May 7 to 11, 2018, the SYMAV project conducted Molecular Biology Training in the Centre de Recherches Médicales de Lambaréné (CERMEL) to improve techniques for detection of dengue virus (DENV). There were 10 trainees: 4 researchers from universities and institutes of Gabon, and 6 from CERMEL. In the training, they learned conventional and real-time RT-PCR techniques to detect DENV from samples of febrile patients. Since PCR is one of the most sensitive assays for detection of pathogens, it is essential to learn and adopt PCR assays in their own researches.

#### Daily on-site training in CERMEL



Daily on-site training on basic techniques of molecular biology and serology including viral RNA extraction, real-time PCR and ELISA has been conducted in CERMEL. Young researchers have obtained cumulative experience and improved their experimental skills. Furthermore, using the BSL-2/3 laboratory installed by the SYMAV project, we started a new training for handling cell culture system, which has not so far been performed in CERMEL.

#### Training in Nagasaki University



From November 12 to 23, 2018, the second short-term training, titled "Practical training on DNA sequencing and phylogenetic analysis," was conducted in Nagasaki University, Japan, for 3 researchers of CERMEL. With acquired knowledge and skills, they are carrying out their own studies in Gabon.

### Research Activities

Investigation of viruses in wildlife



The project targets not only febrile patients but also wild animals to clarify the risks of viral transmission between humans and animals. In collaboration with the Research Institute for Tropical Ecology (IRET), we collected animal samples (Rodents, porcupines, duikers, etc.) in the forest and residential areas. DNA/RNA extracted from their organs are being analysed to identify zoonotic viruses.

#### Installation of new equipment

#### New Equipment and Practical training for NGS



During the fiscal year 2018, the project installed two advanced equipment: a capillary sequencer (ABI 3500, left) and a nextgeneration sequencer (Miniseq, right). These equipment will reinforce the research capabilities at CERMEL.

#### Support for Doctoral Program

One of the collaborating researchers achieved а scholarship for doctoral program from Organization of Coordination for the Fight against Endemic Diseases in Central Africa (OCEAC). He started to prepare his own study protocol in collaboration with project researchers.

## Project Monitoring

Joint Coordination Committee (JCC)



To set up next-generation sequencer (Miniseq), one technician from a maintenance company (AGBL) visited Lambaréné and conducted a practical training on the principle knowledge of operation in CERMEL.

#### Capacity building Support for Master Program

Two master students from University of Science and Technology of Franceville completed their collaborating studies with supports of Japanese researchers, and acquired the degree in October and December, 2018.





On September 17, 2018, the second meeting of Joint Coordination Committee (JCC) was held in the Ministry of Higher Education and Scientific Research (MoHESR). This meeting is chaired by the General Director of Scientific Research and Innovation and is conducted annually. The objective of JCC is to share the progress of project activities and to exchange the opinions on the challenges which the project is now facing. Active discussions from the participants were held on and next JCC is scheduled for September 2019.



#### Press Tour of the Embassy of Japan



On September 13, 2018, the press tour by the Embassy of Japan was implemented in Lambaréné and Prof. YASUDA had an interview with Gabon television. L'Union, the main Gabonese newspaper, had an article on his comments on September 14. Gabon TV broadcasted the program on the interview on September 17, 2018.

#### Meeting at the MoHESR

In May 2019, the Resident Representative of JICA Gabon and project staff met the Ministry of State of MoHESR with the objective of discussing the progress of project activities.



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