

Results report

1 . Title of Research and Development :

Antigenicity to humans and gene polymorphism of the new malaria vaccine candidate, TAM (Trans-amidase like molecule) of Asian malaria.

2 . Principal Investigator : Name (Department and job title at the affiliated institution)

Kenji Hirayama, (Department of Immunogenetics, Institute of Tropical Medicine (NEKKEN), Nagasaki University, Professor.)

3 . Counterpart Principal investigator : Name (Department and job title at the affiliated institution (Country))

Mario Jiz, (Immunology Department, Research Institute for Tropical Medicine (RITM), Head. (Philippines))
Tin Maung Hlaing, (Defence Services Medical Research Centre, Director. (Myanmar))

4 . Results of Research and Development:

<**Meetings**> Regular teleconference by Skype and Kick-off meeting (at RITM (Philippines) in January) were held almost as scheduled in original proposal. Staff of Defence Services Medical Research Centre, Director (Myanmar) could not go to RITM, so they attended by Skype.

<**Planning for Research and Development**> According to the result of discussion, we fixed the sample number and area for sample collection in each country. In addition, we determined the detail of our Research and Development.

<**Ethical Review**> RITM already applied their proposal for institutional and national ethical review boards. The review boards gave us some question and asked modification. We discussed to answer their request. And they already got the institutional approval and now they are waiting for national approval. In Japan and Myanmar, we finalized proposal and prepared for apply.

<**Sample Collection**> Still now we are waiting for the approval of ethical review board, so we didn't start sample collection yet.

<**Preliminary Study**> We referred to our previous data and reported clinical study for the genetic analysis of polymorphism, then selected malaria antigens and host factors like HLA as targets for our analysis. Three institutes agreed to utilize next generation sequencer (NGS) to analyze the polymorphism, so we prepared reagents and designed primers for the setup.

To establish the detection system of anti-malaria immunoresponse, we planned to use ELISA and ELISPOT, so we prepared recombinant antigen like TAM for those.

We agreed to launch a laboratory in Palawan island (will be a sample collection site in Philippines) by Nagasaki University and RITM. Recovery of DNA and cells from patient blood and (part of) experiments will be done in the laboratory. We consider the laboratory as our co-laboratory, then the space for our laboratory will be offered by RITM and the equipment will be provided by Nagasaki University. RITM selected candidate for our laboratory, and Nagasaki University selected electric devises like centrifugation, clean bench etc and bought part of those.