

大 学 の 世 界 展 開 力 強 化 事 業  
「ASEAN 諸国との協働・連携による次世代  
医学・保健学グローバルリーダーの育成」

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研修期間（6/3～7/2 1ヶ月間）

I have attended a training course about a variety of bacteria and cases in Airlangga University, Indonesia between June 3 and July 2. I report about the course as follows.

[Training in the laboratory of Intestinal tract infectious diseases ]

I had trained for a total of 13 days at the laboratory of intestinal tract infectious diseases in the University. In the laboratory, The Indonesian staffs isolated clinical strains such as *Salmonella* spp., *Vibrio* spp and *Escherichia coli*, and performed genetic analysis and drug susceptibility testing in the laboratory. In the first two weeks, I actually experienced to isolate using the test medium, and perform the drug susceptibility testing and the DNA extraction from the stool specimens of pediatric patients with diarrhea that has been sent from Soetomo hospital . I also performed to isolate *Salmonella* spp. from chicken samples in the last week.

In the training, I found that *E. coli* and *Klebsiella pneumoniae* were isolated from most of stool specimens of diarrhea patients in the laboratory. In particular, I was surprised the previous data indicated the isolation of *Shigella* spp.. Furthermore, I detected adenovirus, rotavirus and norovirus using Japanese-made adenovirus, rotavirus and norovirus detection kits. I first taught the Indonesian staffs how to use these kits although I always learned the Indonesian methodologies for the bacterial isolations by them, Of course, It was very difficult for me to teach them in English, but I was surprised the staffs consciously asked detailed questions about the kits. Although they had willingness, they perfectly couldn't use the Japanese virus detection kits because there were no Japanese resident researchers, I felt like a contradictory situation

The Indonesian methodologies were mostly consistent with the Japanese methodologies, but I realized it was slightly different between Indonesian and Japanese methodologies. The differences were the ways of directly putting stool specimens on the medium, using an alcohol lamp and make the medium using glass dishes. I always felt the importance of contamination in our laboratory. According to the Indonesian condition, I became more aware of the high risk of the contamination in the Indonesian laboratory compared to the Japanese laboratory.

[Human immunodeficiency virus (HIV) laboratory tour]

I had a tour of research facility, which newly has a human immunodeficiency virus (HIV) laboratory, in the University for a day. Moreover, it was also planned that I took part in blood samplings for HIV patients who were drug users. I shocked the activity of the samplings for the HIV patients because I have been seen it in Japan. But the samplings had to be canceled.

[Influenza virus laboratory tour]

I also had a tour of Influenza virus laboratory in the research facility for a day. The laboratory has been conducted clinical and epidemiological studies. The staffs isolated the influenza virus from serum of birds, and performed RNA extraction and the genotype analysis. I looked around the experiments to detect genes of influenza virus from the serum of birds by RT-PCR in biosafety level (BSL)3 room because of the possibility that high-risk type was included among the virus. It was a very good experience because I had been never entered the BSL3 room. To enter the room, we had to wear the gown covered the entire body except eyes, double gloves and goggles for protecting our bodies. Thus, It reminded me how dangerous influenza virus was. Additionally, I watched a Japanese staff explained a procedure of the study, and Indonesian staffs aggressively confirmed and performed it. I really felt a good collaboration between Indonesian and Japanese staffs to perform it.

[Sutomo hospital tour]

I visited Sutomo hospital for only half a day. The hospital was the second largest in Indonesia, in particular, pediatrics had about 70 to 150 patients. There were many patient rooms for infectious diseases such as pneumonia, dengue fever, tuberculosis and liver diseases in the pediatrics., The 0-5 years and over 5 years children hospitalized in the first and the second floors, respectively. There were almost 10-20 beds at each room. When the number of patients was too large, the staffs set up the beds in the hallway. The rooms did not put up curtains as a partition in Japanese rooms. The patient's families sat on the bed, some peoples even ate on the bed. I also watched facilities which I had known such as a hospital school for long-term hospital children, operating rooms, and intensive care units. I saw twin babies who were born with sharing stomach, children with a big head just containing water due to hydrocephalus, children being in the hospital for three years, and the baby whose body color was yellow. After all I thought that the environment surrounding children in Indonesia is severer than that in Japan.

[My impressions]

Through this training in Indonesia for a month, I got really good experiences because I could do what I would not be able to do in Japan. It was especially impressive for me to visit to Soetomo hospital. I was able to consider my current study, why the study was needed, how important the study was and what the study would lead to. In addition, people who I met in Indonesia were very kindness. I made good relationships with them. Therefore I also wanted to contact with foreigners like them. In Indonesia, I felt that the number of saying "Thank you." is larger than that of saying "I'm sorry."

Indonesia with enriched kindness and love was very attractive. I could get various knowledge and experiences and put them to use for my study and life.

- The drug susceptibility testing



- The laboratory of Intestinal tract infectious diseases



- Soetomo hospital tour





- Using the kit in Japan to detect adenovirus



- The group of Flu.



• BSL 3



• My friends in  
Indonesia





• The gate of ITD

