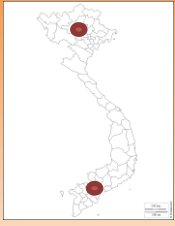


Basic Seminar by Prof. Yamamoto, 18th - 20th DEC.

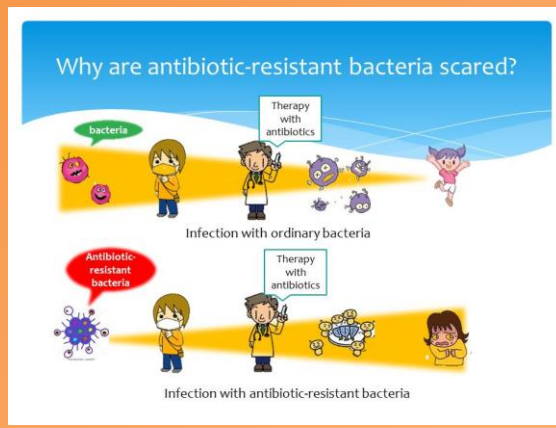


Prof. Yamamoto, who is the chief advisor of the Project, held a basic seminar of scientific backgrounds on antibiotic resistance for Vietnamese researchers at NIN and IHPH. The aims of the seminar are to share common scientific understandings with project members and to enhance ability of researchers, especially for young researchers. He visited NIN and IHPH from 18th to 20th Dec., presenting mechanisms of multi-drug resistant bacteria and exchanging ideas with 14 core researchers of the Project.

SATREPS PROJECT NEWSLETTER

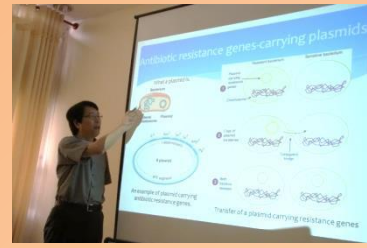
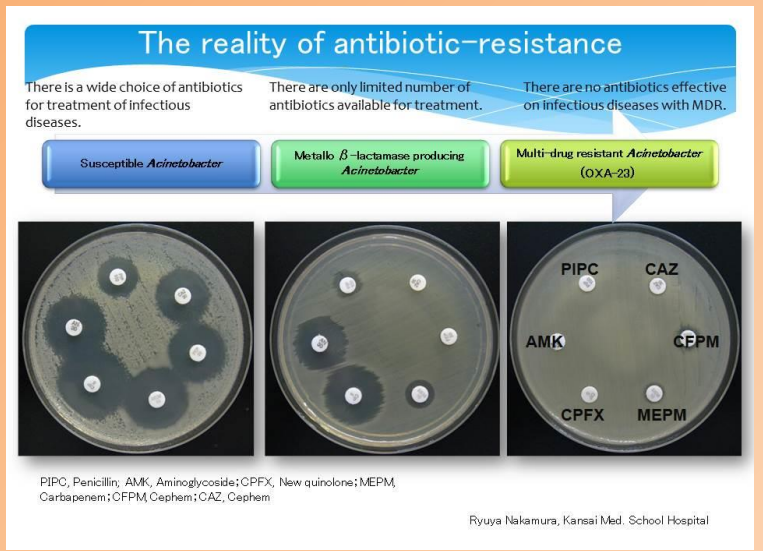


Project for "Determine the Outbreak Mechanisms and Development of a Surveillance Model for Multi-Drug Resistant Bacteria"



❖ Why are antibiotic-resistant bacteria scared?
Firstly Prof. Yamamoto pinned down the reason why antibiotic resistant bacteria are scared. Antibiotic resistant bacteria cannot be killed by antibiotic medicine, which in particular scared for children or aged people those who do not have enough power to fight with bacteria. That's why, as Centers for Disease Control and Prevention USA warned, antibiotic resistant bacteria have been called one of the world's most pressing public health problems.

❖ Multi-drug resistant (MDR)
Then he showed the reality of antibiotic-resistance from laboratory analysis. The left picture shows the fact that all antibiotic medicines of white disks on the plate can kill a bacterium. The middle picture shows only two kinds of antibiotics can kill a bacterium. The worst case on the right picture, none of antibiotics works with a bacterium, meaning that a very danger multi-drug resistant (MDR) bacterium is born. As an example of MDR bacteria, he warned the spread of NDM-1 (New Deli Metallo-beta-lactamase) cases in the world.



❖ Antibiotic resistance genes carrying plasmids

He explained an example of genetic transferring mechanisms from one bacterium to another bacterium. A small DNA molecule, plasmid, sometime carries antibiotic resistance genes. If the plasmid carrying resistance genes is transferred from a resistant bacterium to a sensitive bacterium, both will be antibiotic resistant bacteria. Advanced research on a transfer of plasmid, he suggested, is an important mission for the Project, such as a transfer from resistant *E.coli* to *Salmonella*.

Progress Meeting at Hanoi, 4th - 5th Nov.



Project members gathered at NIN

The second progress meeting was held at National Institute of Nutrition, Hanoi from 4th to 5th November. The meeting was to monitor the progress of activities, make the rest of detailed activity plan and review issues and solutions of project management. Twenty six project members from Vietnamese and Japanese institutions attended and discussed on the matters. Each Vietnamese institution presented the progress of project's outputs: research on multi-drug resistant bacteria and research capacity development. For developing monitoring system, the members agreed on monitoring sites of Hanoi, Nha Trang and HCMC to monitor ESBL-producing bacteria and Beta-lactam antibiotics in food samples. The monitoring system will adapt a framework of Ministry of Health Vietnam Food Administration's system and start from 2014.



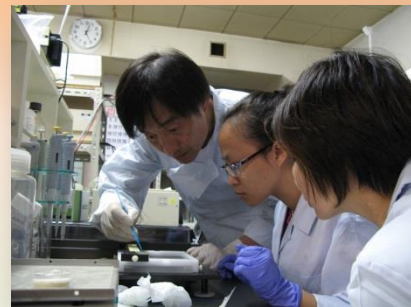
The project leader Prof. Tuyen and chief advisor Prof. Yamamoto signed on Minutes of Meeting and agreed on the meeting results, witnessed by representatives of each Vietnamese institution.



After the meeting, Japanese members prayed for the success of the Project at Van Mieu, the temple of literature in Hanoi.

Short-term training in Japan completed, Oct.

Six participants finished short-term training courses in Japan on 15th Oct. 2013. The courses consisted of three themes: microbiology, pharmacology and food monitoring system. Each participant attended on lectures at Osaka University, experimental practices at Osaka Prefecture Institute of Public Health and field visit to food whole sale market, etc.



Zoom in Researchers



❖ Can Tho University (CTU)

Can Tho University, focusing on food production sites in Mekong Delta, plays role in food microbiology, pharmacology and anthropology study.



➤ Dr. Nguyen Cong Ha
College of Agriculture and Applied Biology



➤ Ms. Tran Thi My Duyen
College of Aquaculture and Fisheries

➤ Ms. Duyen has started doctoral course on pharmaceutical science at Osaka University under Prof. Hirata's supervision.



➤ (Left) Dr. Tran Thi Tuyet Hoa
College of Aquaculture and Fisheries

➤ (Right) Dr. Nguyen Trong Ngu
College of Agriculture and Applied Biology



➤ Ms. Tran Thi Thu Suong
College of Agriculture and Applied Biology

➤ Ms. Suong has just certificated by Prof. Yamamoto for her completion of short-term training course at Osaka University.

Digest of Activities in Vietnam, Oct. – Dec.

➤ Hanoi



NIN microbiology team with Mr. Ueda collected 317 samples from Bavi, started isolation of ESBL-producing bacteria in healthy human and foods.

➤ Can Tho



CTU microbiology /anthropology team discussed with Dr. Sumimura about the next research plan in Mekong Delta.

➤ Thai Binh



TMU microbiology team with Dr. Watabe, Dr. Kawahara and Hirai collected 251 samples including healthy human feces, foods and chicken swab, conducting disk diffusion test.

➤ HCMC



IHPH pharmacology team with Dr. Harada, Dr. Okihashi and Dr. Uchida started LC/MS/MS analysis on food samples. Microbiology team isolated ESBL-producing bacteria from foods.

➤ Nha Trang



PINT pharmacology team with Dr. Harada conducted Premi test on antibiotic residues in 200 food samples collected from a market.

❖ Pasteur Institute of Nha Trang (PINT)



Pasteur Institute of Nha Trang, covering from food production to human consumption sites, plays role in microbiology (human and foods) and pharmacology research. They are also in charge of managing the Project's monitoring system of ESBL-producing bacteria and antibiotic residues in Nha Trang.



➤ (Left) Mr. Le Quoc Phong
Microbiologist, Center for food safety analysis of central provinces of VN

Mr. Phong will start a sandwich short-term training course at Osaka Prefectural University from FY 2014.



➤ (Left) Ms. Dao Thi Van Khanh
➤ (Right) Mr. Chau Van Vien
Pharmacologists, Center for food safety analysis of central provinces of VN

Mr. Vien has completed the short-term training course at Osaka University in 2013.

EDITED BY PROJECT OFFICE

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