Inter-Graduate School Program for

Sustainable Development and Survivable Societies

Interdisciplinary Seminar (2 session course)

【＃16-Part1/2(1)】【＃17-Part2/2(1)】

An Example of International and Multidisciplinary Study at Ctr. for Southeast Asian Studies: A Crossover Approach between Medical Science and Field Science

◆Lecture I

By : M. Nishibuchi
(Ph.D. & Prof., Ctr. Southeast Asian Studies (CSEAS), KyotoUniv.)
Date : June 2 (Thurs.) 2016, 18:15 – 19:45
Venue : Shishukan Hall (HIGASHI ICHIJOKAN, basement floor)

<Summary>

The infectious disease study group of CSEAS has been headed by M. Nishibuchi in the last 20 years. This group have carried out the studies on various infectious diseases that are important in Asia. In many of the studies, the approach was multidisciplinary and required international collaboration between CSEAS and various institutions in Asian country(ies). The basis of the multidisciplinary approach is a crossover between two cores: medical science and a field (or area) science with each core being supported by the workers with varying disciplines. They turned out to be very successful and resulted in publication of many internationally coauthored scientific papers. In particular, the study on seafood-borne infection by *Vibrio parahaemolyticus* has been expansive (Fig. 1). It started with findings of the emergence of infections by a new clone of *V. parahaemolyticus* in Southeast Asia and its spread to other parts of the world.

The discovery of the pandemic spread of the infection stimulated establishment of preventive measures by domestic and international administrators. These included development of a sensitive yet easy-to-do method of pathogen detection using two clever techniques assisted by two Japanese companies. It can be carried out in any countries including resource-limited tropical countries and validation of the method in various parts of the world was ordered by FAO/WHO. Some GSS students had an opportunity to serve as staffs to teach the participants from various counties in the validations where they learned importance and skills to tide over the difficulty in teaching foreign scientists. The study was also extended to development of a new disinfectant by industry-university cooperation.

◆Lecture II

By: A. Y. Kayali (Ph.D. & Assist. Prof., CSEAS, Kyoto Univ.)
Date: June 3 (Fri.) 2016, 17:00 – 18:30
Venue: Shishukan Hall (HIGASHI ICHIJOKAN, basement floor)

<Summary>

Our achievements in Asian studies are going to be utilized in collaborative studies on food safety in Middle East and South America.

As to cooking food materials, KSA is considered to be most conservative in Middle East, which might be the way of cooking transferred through religion. For example, safety of the food is assured by cooking meats and seafood by thorough heating, which M. Nishibuchi felt more than enough. He hypothesized that the traditional cooking method was established probably against extremely hot climate and that it rather dulls one's appetite, becomes an important source of discontent, and possibly stimulates the juvenile to resort to dangerous activities such as reckless driving and extreme political movements.

A scientist well versed in food microbiology from the Middle East, Dr. A. Y. Kayali from Syria, a less conservative country with milder climate than KSA, will express his opinion on the above hypothesis and explain a possibility of improving the cooking habit for meats and seafood in KSA by the proposal to reduce heating with hygienic conditions being maintained. This will be made possible by the quantitative risk assessment using the food examination data obtained by our collaborator group headed by Dr. Nasreldin E. H. Mohamed of Dammam Univ., KSA and detection techniques created by Dr. A.Y Kayali. We will also ask him the possible methods to avoid the religious barriers in our way so that people can enjoy happy family dinner with improved tastes of meats and seafood.

Dr. A.Y. Kayali will kindly introduce our collaborative study with Dr. Oscar Roberto Escalante Maldonado at Peru NIH, the first graduate of GSS, concerning the effect of El Niño on seafood safety in Peru where fishery is the top industry and he will also report the update of the achievement on the contributions of the techniques that Drs. Kayali and Escalante Maldonado reported previously.

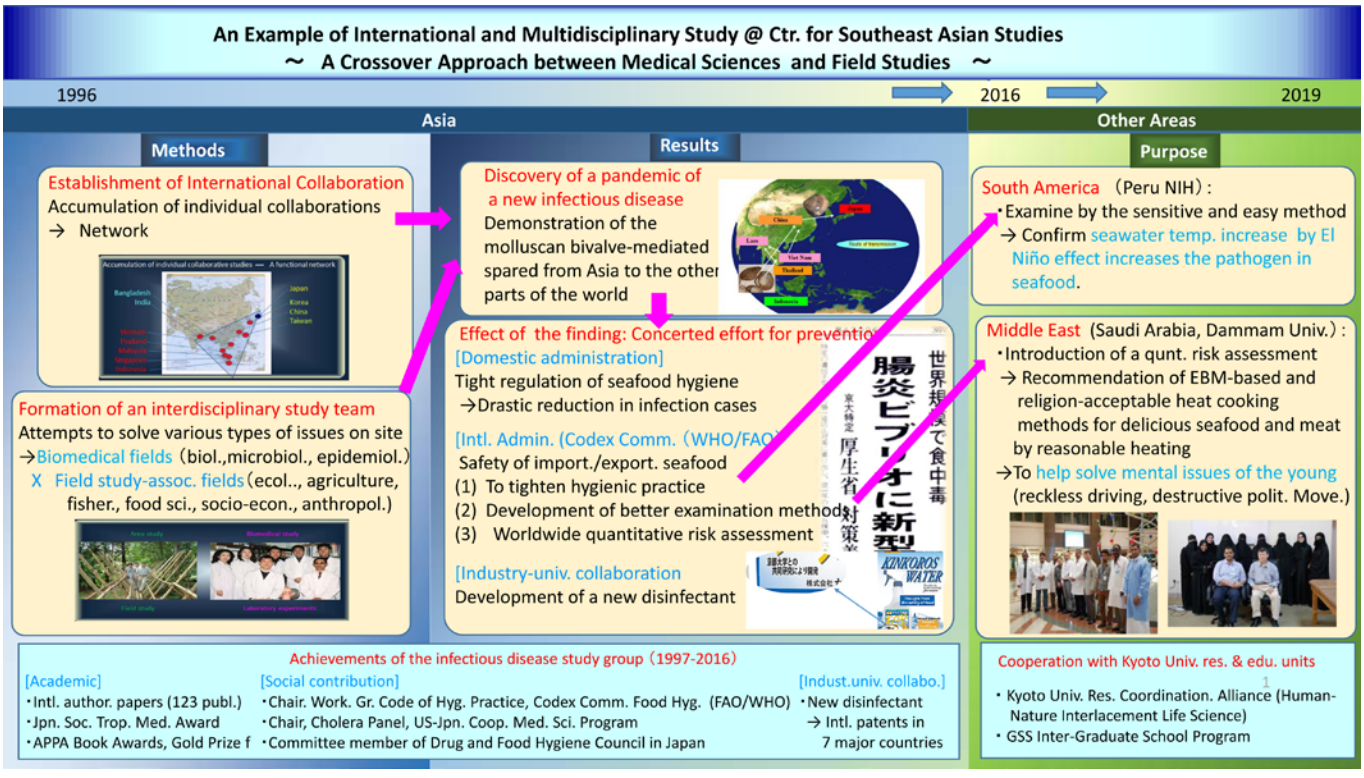

Fig.1. Schematic representation of the contents of the lectures