

# The Core Research Partnership Structure for Japan and West African Sub-Region: For the Next Step of Exchange by Young Researchers from Both Sides

Ghana-Tokyo Medical and Dental University Research Collaboration Center

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## Research Collaboration in Africa

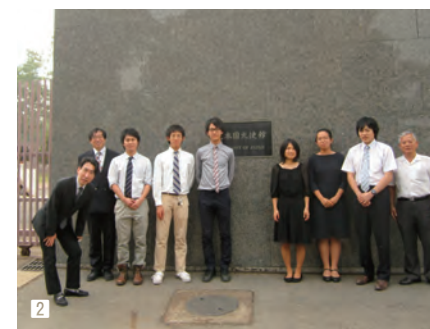
Our international research collaboration project between Japan and Ghana was started in 2008 as a member of the program of Ministry of Education, Culture, Sports and Technology (MEXT) entitled "Program of Founding Research Centers for Emerging and Reemerging Infectious Diseases." The aim of this program was to promote on-site research on infectious diseases to improve public health of Japan and each counterpart country, and also develop human resource in the field of infectious disease research. We are now in the second phase of the MEXT program under the new title of "Japan Initiative for Global Network on Infectious Diseases (J-GRID)." From a global point of view, sub-Saharan Africa is one of the hot and urgent areas for controlling infectious diseases. In J-GRID's structure, there are only two projects being implemented in Africa. One of the two projects is our Ghana center in West Africa, and the other one is the Zambia center in east Africa. In this sense, our situation in the MEXT project is quite important, and, also, it is expected to expand more intensive research collaboration in Africa.

The counterpart institution of our MEXT project in Ghana is the Noguchi Memorial Institute for Medical Research (NMIMR). By the use of the scheme, TMDU founded its international collaboration center at NMIMR in 2008. Since then, two

researchers, Professors Eiji Ido and Takashi Suzuki, have been dispatched to the collaboration center at NMIMR, and they are in charge of research implementation and also of exchange of students and researchers between TMDU and NMIMR. After five years operation of our collaboration activities, we have to consider the next step for our collaboration center. Several activities have been added to our project to step forward in the future.

## Education and Training in Ghana

Our international collaboration center at NMIMR was founded to promote exchange not only in research, but also in education and training. For the latter purpose, several schemes of mutual visits to/from Ghana were agreed, and more than 15 young Japanese and Ghanaian staff and students have visited each other in the past two years. To provide experiences of African situation for young students and researchers, we have sought to establish a scheme to dispatch Japanese undergraduate students to Ghana. In the past two years, medical students from TMDU were dispatched to NMIMR to join the MEXT research project. In the academic year 2012, TMDU started official support for dispatched students by covering part of their living costs in Ghana, through which students can stay more easily to accomplish research on tropical diseases.



① TMDU students at "Week-end party" at the University of Ghana.

② Medical students from TMDU visited the Embassy of Japan in Accra.

③ Lecture on infectious diseases by Professor Ido in Accra.

It is a big opportunity for Japanese medical students to experience the different culture, social structure, and medical demands that they can find in Ghana. One such visiting student was inspired to become a researcher of tropical medicine, and applied to the TMDU graduate school this year.

Visits of Japanese young people to Ghana through the collaboration center activities seem to have a good influence on Japanese residents in Ghana as well. Mr. Yoshikazu Tamura, President of Japanese Association in Ghana, understood the importance of these visits by medical students of TMDU to Ghana, and he kindly proposed to provide air tickets for their travel between Tokyo and Accra. In December 2012, Mr. Tamura and President Ohyama signed agreement papers, and tickets were donated to two students who were scheduled to visit NMIMR in January 2013.

## Monthly Newsletter on the Homepage

For informational transparency of the Ghana-TMDU center as part of the international exchange activities of TMDU, it is important for our activities in Ghana to get wider attention and understanding by the Japanese side. For this purpose, the Ghana-TMDU center started to distribute a newsletter through the homepage of TMDU. This publication is distributed monthly, and the contents are not limited to research outputs. Indeed, an introduction of Ghanaian culture is rather more concentrated. The first issue was in October 2011, and the latest issue introduced activities of dispatched students from TMDU to NMIMR.

## AARF 2013

The biggest event of our collaboration project in 2012 was the organization of the Asian-African Research Forum on Emerging and Reemerging Infections (AARF). The forum is held as an annual meeting on scientific outputs from each research collaboration center in the J-GRID pro-

gram. AARF in the fiscal year of 2012 (AARF 2013) was held on January 23 and 24, and the venue was Akio Suzuki Memorial Hall, TMDU.

The number of participants for AARF 2013 was 323 in total, and among them, foreign participants were 85 (26.3%). They came from 11 countries, including China, Thailand, Vietnam, Philippines, Indonesia, India, Myanmar, Kenya, Zambia, Congo and Ghana. Our Ghana project was the host of AARF this year, and we planned to have discussion on the matters of infectious diseases in Africa.

Professor Satoshi Omura, from Kitasato Institute, related his experience in discovering ivermectin, a highly effective drug for many parasitic helminthes causing "Neglected Tropical Diseases" in Africa. Our other specially invited speaker, Dr. Heinz Feldmann, of the National Institute of Allergy and Infectious Diseases, USA, gave a presentation on endemic episodes of Ebola fever in Africa. More than 120 papers were submitted, and all participants enjoyed active and fruitful discussion during AARF 2013.

As mentioned above, activities of the Ghana collaboration center at NMIMR are successful, and the new Director of NMIMR, Professor Kwadwo A. Koram, is willing to continue more intensive exchanges between TMDU and NMIMR. We have established a good partnership in these years, and our mutual understanding is to expand collaboration activities. The current structure of collaboration is limited to areas of limited research fields. However, TMDU and NMIMR have more possible resources such as dental research and biomedical research. We will continue to discuss how to expand our research partnership structure, for example by inviting more external researchers for our mutual benefit in future.

The Newsletter of the Ghana-TMDU Collaboration Center has been released monthly since 2011.



The Asian-African Research Forum on Emerging and Reemerging Infections 2013 was hosted by the Ghana-TMDU Center.





# TMDU Colorectal Cancer Screening Project: Expanding from Santiago to Other Cities in Chile, and from Chile to Ecuador and Paraguay

Latin American Collaborative Research Center,  
Tokyo Medical and Dental University, Santiago, Chile

Yoshinobu Eishi  
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## LACRC Activities in 2012

The Latin America Collaborative Research Center (LACRC), located within Clinica Las Condes (CLC) in Santiago, Chile, is operated by staff from three TMDU departments and a CLC secretary (Fig. 1). Dr. Koji Tanaka has been working as an endoscopist on the project since January 2012. He works at the training center of the Chilean-Japanese Institute of Digestive Diseases at the National Hospital San Borja Arriaran. Dr. Hiroshi Kawachi has been working as a pathologist on the project since March 2012. He reviews all pathology samples and clinical data obtained by the colorectal cancer screening project so as to standardize diagnostic criteria. Dr. Maki Kobayashi has been working as a molecular biologist on the project since July 2012. She is supported by a JSPS grant to perform molecular research using materials obtained from the project. Thanks to support from the three participating TMDU departments, their staff members, and the able assistance of Ms. Rieko Shinomiya of CLC, the LACRC secretary, six TMDU students were able to complete their project semester, from October 2012 to February 2013, at LACRC.

1 TMDU staff members associated with LACRC and the LACRC secretary in front of the LACRC office. From left: Dr. Kawachi, Ms. Shinomiya, Prof. Eishi, Dr. Kobayashi, Mr. Sekine, and Dr. Tanaka.



2 The Colorectal Cancer Screening Project will eventually expand to eight cities in Chile.

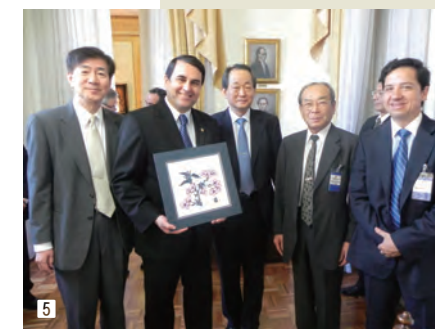


## Colorectal Cancer Screening in Chile

The pilot project for colorectal cancer screening has expanded from Santiago to other cities in Chile, including Punta Arenas, Valparaíso, and La Serena, and will eventually have a presence in at least eight cities (Fig. 2). The project has already led to the early diagnosis of 14 cancer patients via immunological fecal occult blood test screening of 2,200 people in Punta Arenas. The resultant detection rate of 0.64% is higher than the rates reported in other areas in Chile. In Valparaíso a new endoscopy center for the project is now under construction. In La Serena, a pilot screening project is now ready to be initiated from this March at the Hospital San Pablo de Coquimbo, in collaboration with the University of Católica Norte. A TMDU mission will visit La Serena for a one-day conference this August, at which they will be able to assess the progress made by this newest branch of the pilot screening project.

## New Training Center for the Project

The endoscopists and pathologists who will participate in the national screening project will be trained at the Chilean-Japanese Institute for Digestive Diseases in Santiago. The Institute's endoscopy unit has been renewed and enlarged by a USD\$500,000 fund from the Ministry of Health. The training center will be used for training doctors from other Latin American countries as well as from Chile. TMDU will give each successful trainee a certificate that will allow them to participate in the relevant national program held in their home cities and countries. Mr. Hidenori Murakami, the Japanese ambassador to Chile, expressed his gratitude for the project to a visiting delegation from TMDU and supporting Chilean doctors at a party held at his house on August 22, 2012 (Fig. 3).



## TMDU Activities in Ecuador

TMDU mission members, including Professor Ohno, the Trustee for Planning and International Exchange, and Professors Sugihara, Kawano, Eishi, and Yoshida, and LACRC staff members, Drs. Tanaka, Kawachi, and Kobayashi, visited Quito, Ecuador, for a one-day TMDU conference on digestive diseases. Professor Ohno gave a presentation on brain metastasis of colorectal cancer, and, at the end of the conference, he signed a collaboration agreement between TMDU and the Ministry of Public Health of Ecuador (Fig. 4). The LACRC staff members plan to visit Quito again in February to provide a one-week training course at Hospital Pablo Arturo Suarez, where the colorectal cancer screening project is already underway.

## TMDU's First Visit to Paraguay

In November 2012, TMDU President Takashi Ohyama and Professors Eishi and Yoshida visited Paraguay upon an official invitation from the President of Paraguay, Dr. Federico Franco (Fig. 5). President Franco is a medical doctor and he is eager to implement a colorectal cancer screening program in Paraguay. The meeting between TMDU, CLC, and the Paraguayan government was arranged through the kind efforts of Professor Ricardo Fretes, who is a top leader of the Latin American Association of Colorectal Surgery. At the meeting, President Ohyama expressed his intention that TMDU will support the project in Paraguay through the activities of LACRC and CLC. President Ohyama also met several Paraguayan medical doctors of Japanese descent who had previously attended JICA training courses in Japan, and asked them to support TMDU activities in Paraguay.

## Japanese Grants for the Project

The Project is supported by grants, and will be

able to expand upon the receipt of newly-applied for grants. For example, a JSPS grant supports TMDU's research activities for molecular analysis of hereditary colorectal cancer patients in Chile. Another JSPS grant to support an analysis of the effectiveness of the endoscopy training held at the Chilean-Japanese Institute is under application. Funding for a third national training course to be held by TMDU and CLC, to train personnel from other Latin American countries, is currently under review by JICA. In addition, the Japanese Ministry of Economy, Trade and Industry recently encouraged mutual collaboration between TMDU and Japanese enterprises in distributing Japanese technologies and products throughout the region.

## Project Semester Participation

Six 4th year medical students from TMDU arrived in Chile in October, 2012 to study at CLC and the University of Chile. These six students are the third generation of project semester students to do research at LACRC since 2010. In all, 18 TMDU medical students have had 5-month stays in Chile. They all enjoyed the Chilean culture, food, and climate. The current students made poster presentations of their research on 21 January 2013, under the supervision of the assembled Japanese and Chilean professors (Fig. 6).



3 The Japanese ambassador to Chile, Mr. Hidenori Murakami (front row, third from left), invited Chilean doctors, LACRC staff and TMDU visitors to his house to express his gratitude for the cancer screening project.

4 Prof. Kikuo Ohno (center), TMDU Trustee for Planning and International Exchange, at the signing of the agreement to collaborate with the Ministry of Public Health of Ecuador towards implementing a national colorectal cancer screening program in Ecuador. Prof. Eishi is on the far right.

5 President Ohyama visited Paraguay upon a formal invitation by the President of Paraguay, Dr. Federico Franco (second from left, holding a gift from President Ohyama). Prof. Eishi is on the far left.

6 TMDU students at the poster presentation held at CLC. Front row, from left: Mr. Tashiro, Mr. Yanagawa, Mr. Sega, Mr. Inoda, Mr. Akiyama, and Ms. Ohki. Standing behind them are CLC staff, Chilean professors, TMDU staff members, advisors and researchers.



# Overseas Dental Seminar and Consultation Helps Japanese Residents in Thailand with Dental Problems or Concerns

CU-TMDU Research and Education Collaboration Center, Thailand

Yoko Kawaguchi  
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## Dental Support Activities for Japanese Residents in Thailand

One of the purposes of the CU-TMDU Research and Education Collaboration Center is to provide health support for Japanese residents in Thailand. On September 9, 2012, "The 1st Overseas Dental Seminar and Consultation" was held for Japanese residents at Imperial Queen's Park Hotel, Bangkok. The CU-TMDU Research and Education Collaboration Center organized the event with the support of the Japan Dental Alumni of Thailand (JDAT). The participants of this seminar and consultation were schoolchildren and their guardians of the Thai Japanese Association School in Bangkok.

After the opening address by TMDU President Takashi Ohyama, Professor Ikuko Morio (Director of the International Exchange Center) gave a speech outlining the history, current projects, and

future endeavors of the CU-TMDU Center. Eight lecturers from TMDU presented on variety of dental topics in the seminar.

At the same time, dental consultations with Japanese residents in Thailand were held. Each consultation was carried out in a private compartment by a two-person team consisting of a member of the TMDU and a Japanese-speaking Thai dentist (JDAT member) who have the same specialty. In all, 75 Japanese residents in Thailand who had particular problems or concerns received advice on dental treatment in Japan and Thailand.

Continuing these kinds of activities and expanding the amount of information available to Japanese living in Thailand must be necessary for future CU-TMDU center activities. Based on this experience, we have high hopes for our next projects.

## Voluntary Contribution in Mobile Dental Services by President Ohyama

The Faculty of Dentistry of Chulalongkorn University provides mobile dental services for Thai people living in the north in dentistless areas, who cannot otherwise receive dental treatment, as a Royal Project. In December 2012, President Ohyama participated in this project as a volunteer and provided dental treatment to local people. Both Thai dentists and Thai people highly appreciated his contribution, as President Ohyama made excellent dentures and also directly talked



President Ohyama giving the opening address for "The 1st Overseas Dental Seminar and the Consultation."

## Seminar Topics and Lecturers

1. Prevention and treatment of dental caries  
Dr. Yoshiaki Ono (Pediatric Dentistry)
2. Basic knowledge of orthodontic treatment  
Dr. Yoshiro Matsumoto (Orthodontics)
3. Basic knowledge of bad breath prevention  
Dr. Yoko Kawaguchi (Fresh Breath Clinic)
4. Tooth whitening  
Dr. Naoko Seki (Cariology and Operative Dentistry)
5. Bruxism, metal-free dental treatment  
Dr. Yuji Fukui (Fixed Prosthodontics)
6. Prevention and treatment of periodontal disease  
Dr. Hiroaki Kobayashi (Periodontics)
7. Self-check of oral cancer  
Dr. Yusuke Nakajima (Maxillofacial Surgery)
8. Dental implant treatment  
Dr. Shinji Kuroda (Dental Implant Clinic)



with people in their own language.

## Celebration Meeting with JDAT Members

JDAT is an alumni society made of members who have studied dentistry in Japan. The society has an important role in activating academic exchanges between TMDU and institutions in Thailand. Since its members can speak Japanese and understand Japanese culture, there is a great opportunity to support Japanese residents in Thailand with dental care.

On September 8, President Ohyama and TMDU staff joined the JDAT meeting to celebrate Dr. Thosapol Piyapattamin's inauguration as the Dean of the Faculty of Dentistry at Naresuan University. Dr. Piyapattamin is the second TMDU graduate to become a dean of a dental school in Thailand, after Dr. Naronsak at Srinakharinwirot University.

It was indeed a great and warm-hearted meeting for TMDU alumni both in Japan and Thailand. There was a big round of applause from everyone when President Ohyama gave the congratulatory address, in Thai, for Dr. Piyapattamin's achievement.

## TMDU Students' Program in CU

In fiscal year of 2012, two 4th year medical students spent five months in CU during their project

semester. Ten 4th year dental students (from the Schools of Dentistry and Oral Hygiene) also spent one week in CU under the overseas dental training program. The lecture the students received at the CU-TMDU Center was broadcast to TMDU by the Video Conference System (VCS) and a lively Q&A session between Tokyo and Bangkok ensued.

The VCS system was also used for the graduate school lecture sessions and business meeting between TMDU and CU-TMDU Center. As the time difference is only 2 hours between Tokyo and Bangkok, it is very convenient to hold meetings between the two schools.

## Coordinators of CU-TMDU Center

Dr. Atiphan Pimkhaokham (Faculty of Dentistry, CU) has been working as a coordinator of CU-TMDU Research and Education Collaboration Center, and has been the main administrative supporter of the center's activities until August 1, 2012, when Mr. Katsuji Onoda (International Exchange Center, TMDU) was also appointed as a coordinator. Therefore we have coordinators from both TMDU and CU. Now that the CU-TMDU Center is expected to expand its activities as a "center" of Southeast Asia, it will contribute a lot for a newly established TMDU project, which aims to harmonize and develop medical and dental education network in Southeast Asia and Japan.

① The Royal Project mobile dental service serves Thai people who live in the north in dentistless areas and is managed by CU staff.

② President Ohyama participated in the project as a volunteer and provided dental treatments for local people.

③ President Ohyama, Dr. Piyapattamin (Dean) and JDAT members of Naresuan University.

The two coordinators of the CU-TMDU Center: Dr. Atiphan Pimkhaokham (right) and Mr. Katsuji Onoda (left).



TMDU and JDAT participants at the Dental Seminar and Consultation 2012.

