

# Expanding TMDU Network in Latin America; Academic, Educational and Clinical Collaboration

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**IN 1968, PROFESSOR** Tadashige Murakami, former professor of surgery at TMDU, visited Chile to give a lecture on gastric cancer. This was the start of a long relationship between TMDU and Chile. In the 1970s, the Japan International Cooperation Agency (JICA) launched a project for the early detection of gastric cancers in order to reduce their high mortality rate. The Gastric Cancer Center in Santiago was founded in 1977 at Hospital Paula Jaraquemada (now the Hospital Clinico San Borja Arriaran), and this center has long played a major role in the project. TMDU also dispatched numerous experts there to support the prevention of gastric cancer. The Gastric Cancer Center was later renamed the Chilean-Japanese Institute for Digestive Diseases, and it still contributes to maintaining the health of the Chilean people.

## Colorectal Cancer Screening in Chile, Supported by TMDU

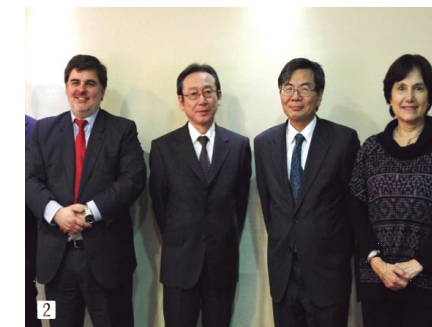
In Chile, the mortality from colorectal cancer has been increasing in the last two decades, and the need for colorectal cancer screening has grown rapidly. Based on a proposal from Dr. Lopez of the Clinica Las Condes (CLC), one of the biggest and most advanced hospitals in Chile,

approval was given to start a screening project for colorectal cancer. In view of the long history between TMDU and Chile, our university was invited to supervise the project. In 2009, the Ministry of Health of Chile, CLC and TMDU signed a collaboration agreement for colorectal cancer screening, and the Latin American Collaborative Research Center (LACRC) was established at CLC in 2010. TMDU has continuously sent experts in pathology, endoscopy and research to LACRC. From 2012, PRENEC (the Prevention Project for Neoplasia of Colon and Rectum) has been implemented in three major cities, Punta Arenas, Valparaiso and Santiago. More cities are planning to join the project in the near future. The Japanese method using immunological fecal occult blood test and colonoscopy has been adopted for the detection of colorectal cancer.

The Chilean-Japanese Institute for Digestive Diseases at Hospital San Borja Arriaran is the headquarters of PRENEC in Santiago. The institute also serves as a training center for endoscopy. Many Chilean doctors have taken a training course in endoscopy, acquiring the skills required for colorectal cancer screening with colonoscopy. The Institute's endoscopy unit has been renovated for PRENEC, with extensive support from the Japanese Embassy in Chile.

## LACRC members and University Activities in 2015

LACRC is staffed by experts from the pathology, endoscopy and research departments of TMDU, and various doctors have been involved in their work in Chile. As of 2015, LACRC is operated by five TMDU doctors; Dr. Hiroshi Kawachi (pathologist, March 2012 to March 2015), Dr. Maki Kobayashi (molecular biologist, July 2012 to March 2015), Dr. Takuya Okada (endoscopist, April 2013 to March 2015), Dr. Masahiro Tsubaki (endoscopist, October 2014 to Septem-



① Colonoscopy training for Chilean doctors by Dr. Tsubaki and Dr. Okada

② Ms. Carmen Castillo, Minister of Health of Chile, Mr. Naoto Nikai, Ambassador of Japan to Chile, with LACRC staff

③ LACRC staff visited Ministry of Health of Ecuador

ber 2015) and Dr. Tomoyuki Odagaki (endoscopist, since November 2014).

## Public Releases of PRENEC Results in Medical Journal and Congress

PRENEC's colorectal cancer screening system has achieved magnificent results.

From June 2012 to July 2014, a total of 10,575 asymptomatic participants were screened by PRENEC. 107 cases of CRC were detected, amounting to 1.01% of all participants, whereas the detection rate by the previous screening system in Chile was 0.2%. Furthermore, most of CRCs detected by PRENEC were early intramucosal cancers without risks of metastasis, and these lesions were treated successfully by endoscopy.

These results have been announced in various medical media. Dr. Okada published an article on the PRENEC outcome in the journal "Cancer", one of the most prestigious journals in medicine (DOI: 10.1002/encr.29715). Dr. Tsubaki made a presentation at an international congress, the World Congress on Gastrointestinal Cancer, in Barcelona. Further papers on topics concerning the PRENEC results are being prepared for publication.

## Expanding TMDU-PRENEC Network

PRENEC and the supporting activities of TMDU are recognized as an essential health promotion initiative for the Chilean people. Dr. Tsubaki and Dr. Odagaki met Ms. Carmen Castillo, Minister of Health of Chile, and the Minister expressed her gratitude to TMDU doctors for their activities. TMDU and the Chilean doctors worked as a team to secure the support of the government of Chile, and thus the TMDU-PRENEC network continues to expand as more cities and districts are scheduled to participate in this project.

TMDU has also endeavored to promote the same screening system to other Latin American

countries, in association with the Japan International Cooperation Agency (JICA) and the International Cooperation Agency of Chile (AGCI). In August 2015, the first meeting on this cooperative activity took place in Santiago, and LACRC members and TMDU professors, Dr. Kumagai and Dr. Ito, gave lectures to doctors from Chile, Ecuador and Colombia.

## Projects in Ecuador and Paraguay

TMDU came to an agreement regarding a cancer screening program with the government of Ecuador in 2012. At that time, a pilot project for colorectal cancer screening was being carried out at National Hospital Pablo Arturo Suarez in Quito, with clinical and project management support from TMDU. LACRC sent doctors from Chile to Ecuador several times, for discussions and to make suggestions about the cancer screening system. In a notable academic initiative, the Ministry of Health of Ecuador holds annual medical congresses in Quito, and TMDU professors are regularly invited as presenters. In Paraguay, TMDU agreed to a direct request from the President of Paraguay for support for the colorectal cancer screening project. Dr. Kawachi from TMDU attended a signing ceremony for the agreement held in Asuncion in June 2013.

④ Meeting of cancer screening in Latin-American countries by JICA and AGCI



Conclusion of an agreement for colorectal cancer screening between the Chilean Ministry of Health, CLC and TMDU





# Strengthening relationships between TMDU and Universities in Southeast Asia

CU-TMDU Research and Education Collaboration Center, Thailand

Yoko Kawaguchi

DDS, PhD  
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## Joint Degree Program

TMDU and Chulalongkorn University (CU) signed an academic agreement establishing a Joint Degree Program in Dental Science on November 26, 2015. This is a new PhD program focused on orthodontics. This program will be implemented in August of 2016. This is the first time for both of the Faculties of Dentistry, TMDU and CU to establish a joint degree program. It is expected that students in this joint degree program will become leaders of dental science in Southeast Asia as well as Japan.

## Providing information to overseas students about studying at TMDU

In 2015, TMDU provided information about our school, especially the graduate school, to potential candidates of our Ph.D. program twice in Southeast Asian area. The first occasion was at the 6th International Congress on Adhesive Dentistry in Faculty of Dentistry, Mahidol University, in Bangkok, Thailand, January 31 and February 1, 2015; and the second one was at meetings of the South East Asia Association for Dental Education (SEAADE) and International Association for Dental Research Southeast Asia Division (IADR SEA) in Bali, Indonesia, held from August 12 to August 15, 2015. Many participants stopped by the TMDU booth to listen to explanations given

by TMDU staff, especially international students. International students described their own experiences and student life at TMDU. A total of 250 visitors from Asia, Africa, the Middle East, and other regions visited the TMDU booths.

## Student Exchange Program School of Health Care Sciences, Faculty of Medicine

Three 3rd-year undergraduate students from School of Health Care Sciences, Faculty of Medicine and one 1st-year graduate student from postgraduate school, TMDU received training at the Faculty of Allied Health Sciences, CU from August 26 to September 10, 2015, under the Re-Inventing Japan Project.

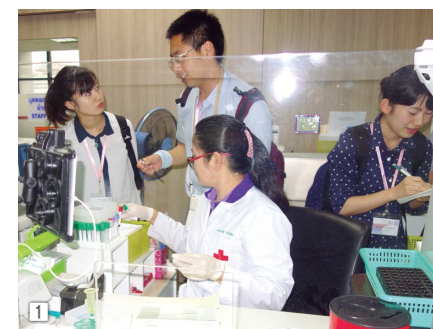
## Project Semester Program School of Medicine, Faculty of Medicine

Two 4th-year undergraduate students from the School of Medicine received training in the Faculty of Medicine, Chulalongkorn University, June 2 to November 13, 2014, as part of the Project Semester Program.

These student exchange programs will contribute to an expanded medical science network between TMDU and universities in Southeast Asia in the future.

## Health Seminar and Consultation for Japanese Residents

TMDU conducted a health seminar for Japanese residents in Thailand at Bangkok General Hospital with co-sponsorship from Bangkok General Hospital on June 13, 2015. Assoc. Prof. Nobuhide Hirai, Director of Student Support Office, Health Administration Organization, TMDU, Assist. Prof. Keiichi Hosaka from Cariology and Operative Dentistry, Graduate school, TMDU and Dr. Thiravud Khuhaprema, Visiting Professor of TMDU and Director of Wattanasoth Cancer Center of



- ① Student Training program at the Faculty of Allied Health Sciences, Chulalongkorn University
- ② Discussion session of ASEAN Dental Forum
- ③ Signing ceremony of Tri-University Academic Consortium at Chulalongkorn University

Bangkok General Hospital gave presentations in the health seminar.

Also TMDU conducted a health seminar and dental consultation for Japanese residents in Indonesia at Jakarta Japanese School in collaboration with Jakarta Japanese School on July 27, 2015. Junior Assoc. Prof. Dr. Zusei Kanno, Assist. Prof. Haruko Fujita, Assist. Prof. Shinji Kuroda, Assist. Prof. Yuriko Komagamine from Graduate School, and Assoc. Prof. Katsuji Onoda, Assist. Prof. Noriko Hiraishi, Mr. Tomoki Mihara of Section Head and Mr. Yusaku Shindo from International Exchange Center, TMDU attended this seminar and consultation.

## Dental E-learning Seminar

On June 13, 2015, a dental e-learning seminar was conducted at the Faculty of Dentistry, University of Medical and Pharmacy at Ho Chi Minh City in Vietnam. Many academic staffs from the dental school attended. In the seminar, Prof. Atsuhiko Kinoshita, Director of the Institute for Library and Media Information Technology, Assistant Prof. Masayo Sunaga from the Institute for Library and Media Information Technology and Assist. Prof. Naoko Seki from the TMDU Postgraduate School introduced the idea of e-learning, explained its utilization, and gave instruction on how to create software.

## 21st Anniversary of Faculty of Dentistry, Srinakharinwirot University

The Faculty of Dentistry at Srinakharinwirot University had its 21st Anniversary Meeting of the Faculty on August 24, 2015. Prof. Keiji Moriyama, Dean of Faculty of Dentistry, TMDU gave a special lecture to nearly 100 dental doctors from the university and other organizations.

## ASEAN Dental Forum

On May 22, 2015, the first meeting of the ASEAN Dental Forum was held at Chulalongkorn

University. Prof. Junji Tagami, TMDU Executive Director and Executive Vice President, was invited and presented on TMDU's activities at the university and at other universities in the ASEAN region.

## Tri-Universities Academic Consortium Agreement between TMDU, CU and Beijing University (BU)

The signing ceremony of the Tri-University Academic Consortium Agreement between TMDU, CU and BU was held at Chulalongkorn University on May 20, 2015. The agreement was signed by three deans. At same time a two-day workshop opened and 19 students and 9 academic staff from TMDU, such as Prof. Junji Tagami, Executive Director and Executive Vice President and Prof. Keiji Moriyama, Dean of Faculty of Dentistry, TMDU, attended and made presentations.

## Executive Director and Executive Vice President Prof. Junji Tagami received an honorary doctorate from Mahidol University

On September 7, 2015 Executive Director and Executive Vice President Prof. Junji Tagami was awarded an honorary doctorate for development of dental scientists from Mahidol University. He received honorary doctorate from Her Royal Highness Sirindhorn at the awarding ceremony in Mahidol University.



- ④ Awarding ceremony of an honorary doctorate at Mahidol University

Signing ceremony of Joint Degree Program in Dental Science



# The Research Partnership between TMDU and Noguchi Memorial Institute for Medical Research, Ghana: New Project under the AMED Scheme

Ghana-Tokyo Medical and Dental University Research Collaboration Center

Nobuo Ohta

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## Project re-started in West Africa

Our international research collaboration project between Japan and Ghana started in 2008 as part of the Program for Founding Research Centers for Emerging and Reemerging Infectious Diseases, sponsored by the Ministry of Education, Culture, Sports and Technology (MEXT), Japan, and became the Japan Initiative for Global Network on Infectious Diseases (J-GRID) program with a minor modification in the scheme. J-GRTID project has completed in the end of Japanese fiscal year of 2014, and the program has restarted as a new project sponsored by AMED, a new agency for supporting biomedical research in Japan. The main focus of AMED/J-GRID program is to promote research collaboration with counterpart researchers in developing countries, which is expected to yield innovative outputs such as new drugs, new diagnostics, and/or vaccines. Information sharing with National Institute of Infectious Diseases is also a strong request from AMED. Under the basic concept, our new AMED-J-GRID project has started to promote research collaboration with

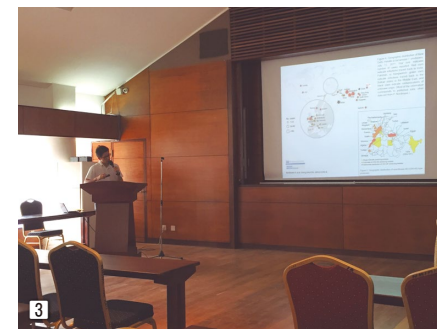
Ghana.

Our counterpart in Ghana is the Noguchi Memorial Institute for Medical Research (NMIMR). Through discussion with NMIMR counterparts, we agreed to continue our collaboration partnership; further, a new MOU was signed by the representatives from NMIMR, Professor Koram (picture) and TMDU, President Yoshizawa. Dr. Mitsuko Ohashi, Project Lecture of TMDU has been dispatched to Ghana as the Team leader, and three research subjects have been on-going at NMIMR under her guidance.

According to AMED policy, the new AMED/J-GRID project is recommended to invite other Japanese laboratories, and as a result, researchers from NIID, Nagasaki International University and Fujita Health Science University have joined our TMDU team.

## New research subjects added to the AMED/J-GRID project in Ghana

Research subjects implemented in the new project have been changed from former J-GRID project. Three subjects are considered: (1) Dengue and/or Chikungunya fever, (2) Diarrheal diseases due to enterovirus, bacteria and protozoa, and (3) drug-development for parasitic diseases from Ghanaian plant extracts. Dengue fever is a infectious disease that threatens to re-emerge in Japan. It is possible to import Dengue fever from tropical countries including Africa. There is no tight evidence whether Dengue fever is endemic in the West African subregion, and our research on Dengue/Chikungunya fever in Africa is critical to disease prevention in Japan. Diarrheal diseases are important health problems both in developing and developed countries. Epidemiological information should be shared globally, and our research collaboration in Ghana on this subject can make an important contribu-



③ Seminar given by TMDU researcher at NMIMR

④ Joint research on mosquitoes at NMIMR

⑤ Karate exhibition by TMDU student

tion. There is still not enough surveillance data available on diarrheal diseases. Also, molecular epidemiology is underway. The third subject is drug development against tropical parasitic infections, almost all of which are categorized as Neglected Tropical Diseases (NTD). Considering that no safe and effective drugs for NTDs are still available, our project on drug-development is highly innovative. We have already obtained promising drug candidates isolated from Ghanaian plant extracts, targeting African trypanosomiasis, leishmaniasis, schistosomiasis and/or malaria.

## Partnership with NMIMR and more

Since the independence of Ghana in 1957, cooperation between Japan and Ghana has been undertaken on various aspects of social and scientific development. In the field of health sciences, NMIMR was established by the support from Japanese Government in 1979. Since then, many collaborative projects between Japanese institutions and NMIMR have been implemented. As mentioned above, TMDU became a NMIMR partner in 2008. Since then, various cooperative activities have been performed not only in research, but also in education and human development. From TMDU, there is a program to dispatch undergraduate students to NMIMR for a few months to gain experience conducting research in developing countries like Ghana. Such programs give our medical students opportunities to see health problems in developing countries, which may influence the future course of their medical careers. It has been decided to re-start the student dispatch project from the school year of 2016, and 4 students have been nominated to visit NMIMR. Graduate students of TMDU have also visited NMIMR. In addition to medical science, young Ghanaian students are interested in Japanese

culture, and it was an impressive event when a TMDU student introduced Karate exhibition to Ghanaian colleagues (picture). Although Ghanaian gentlemen are in general not heavy drinker, but they know Japanese rice wine. “Dr. Noguchi Cup”, product of a company in Fukushima is a popular souvenir from Japan (picture).

From NMIMR, TMDU accepted young and talented researchers as PhD students under the scholarship program of the Japanese Government. In the last 5 years, 7 PhD students from NMIMR received support to join Graduate school of TMDU. Recently, applicants from Ghana have expanded, including young persons not belonging to NMIMR. The specialties of those students are not necessarily the field of infectious diseases, but students of neuroscience or pharmacology from other Ghanaian institutions. This seems to indicate that our Japan-Ghana partnership is expanding, with the TMDU-NMIMR partnership at the core.

NMIMR belongs to the College of Health Sciences of the University of Ghana. The College of Health Sciences is composed of seven Schools, including the School of Medicine and Dentistry, School of Public Health, School of Nursing and others. Along with NMIMR, it is very beneficial to have a partnership with those schools. The partnership is expected to promote scientific and personnel exchanges with those schools in the future. For future planning, we were able to see and talk with Professor Naa Adamafio, Dean of International Exchange, University of Ghana (picture). Based on partnership of TMDU with NMIMR, we agreed that a more intense exchange would be mutually benefit. In this sense, our partnership between TMDU and NMIMR can be deeper and broader one covering various fields of medical sciences. Our Ghanaian colleague are anticipating the next step in the partnership.



① Koram director

② Visiting Prof. Adamafio at International Exchange Centre of University of Ghana

