



There are a wide variety of exchange programs for young people at different levels. TMDU students and young researchers improve their skills by participating in training programs abroad.

# Reports of TMDU Students in the World

Report 01

## Clinical clerkship at University of Glasgow and Harvard Medical School

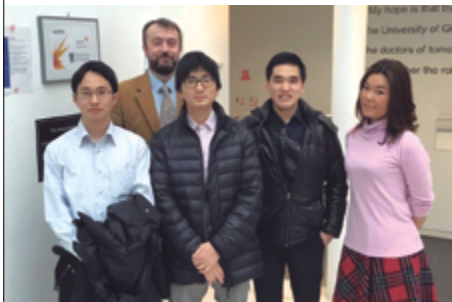


Takayuki Kuroda  
6th year student, School of Medicine  
Clinical Training in UK and US



ONE OF THE biggest benefits of the clinical clerkships in the United Kingdom and United States was the relationships that I made with many people. I met many doctors, researchers and students in each country who have broadened my mind about the medical field and also about my life. I realized through this clerkship that true relationships can only be made by meeting people face to face.

In Glasgow, I participated in clinical training in the Hyper Acute Stroke Unit and Neurology Department at Queen Elizabeth University Hospital as an international medical student from the Japan Medical Education Foundation

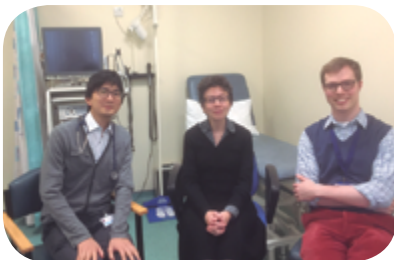


With Prof. Walters and other students from JMEF

(JMEF). It was a wonderful experience for me to learn about evidence-based intensive multidisciplinary care for acute stroke patients as well as the comprehensive approach towards patients including neurological examination with the guidance of great neurologists, including Dr. Edward Newman.

I also had an opportunity to learn about the differences in healthcare systems between Scotland and Japan through conversations with Prof. Yoshihiro Kokubo, Visiting Professor at the University of Glasgow, and Prof. Matthew Walters, the head of the School of Medicine at the University of Glasgow. In addition, Prof. Walters gave me a lot of guidance and support throughout the clerkship and told me about the educational strategies for increasing competent general practitioners from his viewpoint as head of the School of Medicine.

In Boston, I learned pediatric neurology at the Child Neurology Department, Boston Children's Hospital, and the Diagnostic Radiology Department at Beth



With doctors in Glasgow

Israel Deaconess Medical Center, both of which are Harvard Medical School (HMS)-affiliated hospitals.

At the Child Neurology Department, learning about how to diagnose, classify and treat epilepsy was challenging for me but it was wonderfully memorable to work for children as a member of the epilepsy care team, which is the first pediatric epilepsy unit in the world. This was mostly thanks to Dr. Takeoka Masataka, who guided me very kindly every day as an attending in the team.

As part of my radiology training, I mainly observed how doctors read images. I especially had a great time in the Neuroradiology Department, where the doctors, including Dr. Yu-Ming Chang and Dr. Rafael Rojas, taught me a lot about important features of neurological images. Sharing good cases with other HMS or international students was also a precious learning opportunity for me.

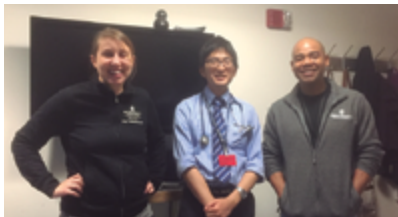
Furthermore, I had many opportunities to talk with Japanese researchers in

Boston. By observing laboratories and knowing how they do their research, I realized how hard but attractive it was to work as a researcher in Boston in terms of high academic cooperativeness and competitiveness.

What I also really felt through this clerkship was the importance of the collaboration between many fields. Close-

ly related to clinical practice are education, healthcare system and research all around the world, which have the potential to improve each other in order to ultimately maximize the patients' benefit. In terms of this collaboration, I was very lucky to be acquainted with many renowned doctors, educators and medical researchers with whom I would like

to continue to have relationships in my future work.



With doctors at Boston Children's Hospital

Report 02

## What I've learned at Imperial College London



Yoshiko Ishisaka  
4th year student, School of Medicine  
TMDU -Imperial Exchange Program



MORE THAN A month has passed since I have returned from London. There were of course a lot of challenging things, but studying abroad was a very precious experience, and looking back at the memories make me miss the days there.

The study experience was beyond what I had expected, because I got the chance to get involved in clinical research, a dietary/clinical research, and clinical medicine. I was in the Endocrinology and Metabolism Department at the Hammersmith Campus of Imperial College. I was placed on a team that investigates how type 2 diabetes improves by bariatric surgery (obesity surgery), and my main research project focused on how glycemic control, insulin resistance, and gut hormone secretion change before and after patients undergo surgery.

Of course, research was tough for me at first. The workload was beyond my capacity in the beginning, and I struggled

with balancing two projects and studying at the same time. However, once I got used to everything, I became able to do more on my own. Moreover, acting independently made me more interested in the research topic and allowed me to learn actively.

Clinical research was also a good opportunity to interact with patients who had the will and motivation to contribute to medicine. I met many patients throughout the research project, and they all told me how they suffered from their disease, taking many medications, dealing with complications caused by the disease, and going to the hospital a lot of times. In addition, they told me that they joined the clinical research not only because they wanted a possibly effective treatment themselves but also wanted to help other people suffering from diabetes. As a medical student, I had been unaware of the suffering felt by patients and the generous contributions of patients who have supported the research of medicine. Now after doing clinical research, I feel that I need to be a doctor who can respond to those patients' wishes and commitment.

I tried things other than research during my study abroad as well. I met many students with diverse backgrounds in the dorm where I stayed. It was always exciting to interact with them and learn about different cultures. Living in



Yoshiko Ishisaka

a dorm served as a good chance to live independently as well. Also, Imperial College provided us with a lot of extra-curricular opportunities; I joined the gymnastics society and a volunteer group. Joining those groups made me feel refreshed from stress, and I was also able to interact with a lot of people from and outside Imperial College. Many of the students I met were motivated, and I was impressed how they engaged in studying, doing internship, and pursuing their hobbies at the same time, just like the phrase my friend at Imperial taught me: "Work hard, play harder."

The experience of studying abroad was unforgettable and made me grow in both academic and non-academic aspects. I hope I can connect what I have learned there to my future career, and I thank everyone who supported me throughout the period in London.



Hanging out with friends from the gymnastics society in the Imperial college student's union



St.Mary's In front of St. Mary's Hospital with my friend who did research together

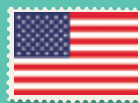


Report 03

## Learning Nursing in Seattle



**Haruno Suzuki**  
4<sup>th</sup> year student, School of Health Care Sciences  
Study program in U.S.



**I HAD THE** opportunity to apply and be accepted to an intensive nursing program at the University of Washington (UW) and Nikkei Manor (the elderly nursing home). We had several discussion sessions with actual Nurse Practitioners (NP) at UW Medical Center (UWMC), Seattle University, and Keiro Northwest Rehabilitation and Care Center. We also received nursing training for elderly residents at Nikkei Manor for two weeks.

Firstly, I had multiple opportunities to discuss about NP with administrative staff members at several hospitals and facilities. The NP is considered to be an advanced nurse practitioner mainly for primary care in the US. Compared to other states, the State of Washington grants the NP relative autonomy with regards to medical practice like diagnosing disease and opening their own clinic without physicians. In the discussions, NPs emphasized the importance



NP discussioning session at Seattle University

that NP has a holistic perspective for patients as a nurse. In Japan, the NP license has yet to be approved as a national license; I think it's necessary to evaluate the possibilities and limitations of the NP and pursue an optimal solution for Japan.

At Nikkei Manor, we underwent nurse training to interview elderly residents and create a nursing plan for each resident based on our own assessment. I learned the importance of promoting 'well-being' and supporting daily life activities for residents. One of the main tasks of the nurses at this facility is managing the health conditions of residents. A nurse mentioned she devised ways of communication with the elderly residents to give positive feedback and enhance their strengths. The atmosphere was really comfortable for all people to work together. Besides, I was happy to find that during my training in the US my original interest in geriatric nursing was reaffirmed.

In the US, Japanese-Americans sometimes experienced exclusion and discrimination, such as being sent to wartime relocations camps like at Tule Lake, which had a big impact on elderly residents and their families. Their



With my host mother and dog

hardship was considerable, and after the war they had to work hard to earn their current status in American society. It was a significant experience for me to hear their wartime stories and the discrimination they experienced.

On the weekends, I enjoyed going outdoors with my host family. Seattle has a large number of places to enjoy outdoors and we can refresh to touch plentiful nature on holiday. In my opinion, people in Seattle place a priority on enjoying their lives and striving to create quality of life. It was good chance to rethink my view on work-life balance.

There are a lot of insights I gained in Seattle. Before this study, I honestly didn't expect that I could experience such great opportunities to meet a lot of people and learn deeply. I appreciated this opportunity and all the support I received to complete this program.



Nursing conference at Nikkei Manor

Report 04

## Things I Gained in Thailand



**Ayane Ono**  
3<sup>rd</sup> year student, School of Health Care Sciences  
Study program in Thailand



**ALONG WITH OTHER** undergraduate students, I joined a two-week study program in Chulalongkorn University (CU) last summer. CU is located in central Bangkok and is known as the most

traditional university in Thailand.

In the Faculty of Allied Health Sciences (AHS) of CU, I visited two laboratories. One was the Laboratory of Thai Medicinal Herbs and the other was the



With the head of AHS

Laboratory of Bioinformatics and Neuropsychiatric Disorders. Firstly, I did some research in the laboratory of Thai

herbs with my friend. We conducted MTT assay and neurite outgrowth to analyze how Thai herbs are effective against neuroprotection, both of which we had never done before. Therefore, it took us a lot of time to understand the protocols. However, thanks to help from graduate students, we managed to succeed in these experiments. On our last day there, we had a chance to explain our results to our professor. This was our first time to make a scientific presentation entirely in English. In this lab, we gained valuable experiences like research using Thai medicinal plants and the presentation. In my second laboratory, graduate students taught me how to use some protein databases and perform electrophoresis. After I came back to Japan, the knowledge



Prepared electrophoresis with a CU student

helped me especially in my clinical chemistry class.

One weekend, I went to Saraburi, a rural province which is more than 100km away from Bangkok. In an open space there, 4th grade students in AHS ran medical examinations for the residents living in a small area of Saraburi in order to study community medicine. Medical technology students collected urine and blood samples and examined them manually. Observing this situation, I could feel the relationship between the Thai society and medical laboratory science, but on the other hand, by helping CU students examine samples, I realized that the number of people with diabetes was increasing in Thailand. Moreover, I found how medical conditions were different between Bangkok and rural areas. After the health check-up, I saw a Japanese occupational therapist talking in front of residents. I was surprised that he gave health guidance in Thai! At the sight of him, I also became interested in health promotion in Thailand.



Examind a urine sample in Saraburi

Originally, I applied for this study program because I wanted to study about medicine in a foreign university. However, through the experience in Saraburi and cultural exchanges with CU students, I could broaden my outlook on global health and Thai cultures as well. Now I want to visit Thailand again to study these fields. Fortunately, I could join another overseas program held in Finland in 2015. Through these overseas programs, I could learn medical weak and strong points in Finland and Thailand. In addition, I noticed that a lot of the skills and knowledge I'm studying in TMDU are used around the world. These programs encouraged me to study harder and think about my future career. I really appreciate everyone who supported me in these programs.

Report 05

## Fruitful Days in Ann Arbor



**Sumiko Yoshida**  
4<sup>th</sup> year student, School of Dentistry  
Study program in U.S.



**ANN ARBOR, A** peaceful college town in the United States, was definitely a great place to spend the summer. During my research semester, I stayed there to conduct basic science research. I was really excited about my first stay in the US, and expected to undergo many challenges. Now, looking back, I am satisfied with my experiences. In order to turn my intentions into reality, I found that it was important to express them to the people around me. Here, I would like to share some of the experiences I had.

I had a chance to join Dr. Gabriel Nunez's laboratory in the Department of Pathology, at the University of Michigan (UM) Medical School, which cur-

rently focuses on models of intestinal, skin and lung inflammation driven by microbial pathogens, commensal bacteria and sterile organ injury. I worked on a project which aimed to investigate the effects of bile acids on commensal bacteria in vitro and on colitis-model mice. Thanks to my supervisor, I was able to experience and observe several research techniques, such as quantitative-PCR, CFUs counting, bile acid sampling, DNA sampling, microbiota analysis and so on.

The lab meetings I attended impressed me the most. I realized that strong critical thinking and language skills are vital for researchers to present their re-



Huron River in Ann Arbor

sults effectively and to participate in active discussion of their research topics. I also learned that it is important to consider how to demonstrate data carefully. Data may give a different impression depending on how it is shown in relation to figures and charts and even depending on the way data is presented in general. Also, it was obvious that contributing to discussion and showing passion and skill for research was indispensable. Lab members asked questions and suggested their ideas frequently, and presenters dealt with these questions and were able to deepen



their research.

In addition to laboratory training, I visited the UM Dental School and Dental Hospital. In the dental students' clinic, I observed a restoration for wedge-shaped defects with glass ionomer cements. In the clinic for graduate periodontics program, implant applications for implant overdenture and a flap operation were performed. Through observing these clinics, I learned that students place importance on teamwork and communication to improve health outcomes. In particular, students in different grades asked each other questions, and professors gave students feedback and discussed cases with them. As for communication with patients, dental care workers explained treatment in detail and asked patients for their questions and opinions. It was interesting for me to discuss the differences in den-

tal clinical practice between the United States and Japan with Dr. Furgeson, who is Director of the Dental Hygiene Graduate Program and Clinical Assistant Professor at UM. From this discussion, I was convinced that those differences, especially in terms of communication, come from our culture and health care systems.

There were so many things to enjoy off campus. Living in a multi-cultural country enabled me to appreciate cultures and differences between people. I am very grateful to have met wonderful, caring and respectful friends there who gave me opportunities for cultural exchange. Thanks to my friends, I fully enjoyed celebrating summer time in the US, such as BBQ, an Independence Day party, and kayaking and tubing on the river. An educational event collaborating with artists in Detroit gave me

my first encounter with hip-hop culture. Before going to Detroit, my assumption was that local people might have negative feelings towards Japan and I was a bit nervous. To my surprise, the people who joined the event gave me a warm welcome. They inspired me a lot through their work and I fully realized it was important to get rid of my prejudices, open my heart and respect other people. There was another event called 'Michigan Japan Week,' which was organized by the UM Center for Japanese Studies, and I was lucky to participate as a volunteer. At this event, local people enjoyed Japanese culture such as summer festival games, sushi and art. From volunteering, I found that many people are interested in and know a lot about Japan. This experience encouraged me to understand and clarify my culture, history, identity and morality.

of registered students. For example, there were students who entered immediately after graduation from high school and those who already had another bachelor's degree. There were students with many backgrounds in Asian countries such as Vietnam, Pakistan, Singapore, Korea, and so on, but unfortunately this time I did not encounter any Japanese college students. I found that among those from other countries, not all could speak English fluently. Some patients were accompanied by an interpreter to a dental hospital and received treatment.



Clinical training at the University of Melbourne

I was very impressed with the acceptance of diversity in Australia. When I was with students they asked me without hesitation, "Are you a vegetarian? Can you eat anything?" In Japan, I think that we should make efforts to deepen people's relationships while respecting

each other's religion and nationality.

I am grateful that I had such valuable opportunities. Through this overseas program, I came to realize that there are many fields in which dental hygienists can contribute. Of course I will continue to learn about dentistry and to study areas of interest such as public health and health promotion. In addition to communicating using English in everyday conversation, I can now express my ideas and opinions at the academic level of specialized fields. I look forward to challenging myself to build on these experiences in the future.

Report 06

My Experience as a Dental Hygienist Student in Australia



Sayoko Yamashita  
4th year student, School of Oral Health Care Sciences  
Study program in Australia



THROUGH THREE WEEKS of study in Australia (from 2nd September to 26th September), I had had many wonderful experiences as a student becoming a dental hygienist. I took lectures at the University of Sydney, Newcastle University and the University of Melbourne and participated in clinical training. In the lectures, the most surprising thing was that the students enthusiastically asked questions and expressed their own opinions. Some lectures used laptops for interactive communication. What I admired most in the lecture was



Good-bye dinner party in Melbourne

the interactive dialogue.

In Australia there are dentists, oral therapists, dental therapists, dental hygienists, dental nurses, and dental technicians. Oral therapists are a relatively new job. It is like a combination of pediatric dentistry and dental hygiene. Dental nurses have a role like dental assistants in Japan. The most impressive part of the overseas training was the interaction with students in the program for the bachelor's degree in oral health therapy at the University of Melbourne. In clinical training, I took practiced periodontal disease examinations while sometimes talking to the patient in English. Incredibly, I actually sucked saliva from a patient's mouth. Instruments like scaling were nearly identical to those found in Japan, but there was a difference between sterilization and dispos-



Study programs in Australia

able equipment for each patient. It was necessary for students to understand the patient's oral problem, to make a dental or dental hygiene diagnosis, and to report on how to intervene to their supervisor, and to formulate the intervention plan itself before treatment and dental preventive treatment are taken. I learned about the role of oral therapists in Australia and was asked questions about Japanese dental hygienists and what kind of programs or careers are available in Japan. My experience was exceptionally enlightening and caused me to reflect on Japanese dental care and dental hygienist work.

I didn't sense any major differences between the two countries in lecture content and clinical training, but I felt there was a difference in the diversity

Report 07

Invaluable Experience in Sweden



Maya Toyoda  
3rd year student, School of Oral Health Care Sciences  
Study program in Sweden



I VISITED THE the University of Gothenburg in Sweden and attended a training program in the Dental Technology Course for 3 weeks. During this stay, I had an opportunity to observe a dental clinic, dental laboratory, and a dental manufacture's factory.

During my stay in Sweden, I enjoyed school life. It was my first time staying abroad by myself. Moreover I couldn't speak English well. These things made me a little nervous, but the students and teachers there were so nice and helped me a lot. They interpreted their lectures into English for me, which helped me to understand. My classmates invited me lunch and "fika," which is a coffee break and Swedish custom for getting along with each other. It was an especially exciting experience to associate with foreign students who study in the



At my friend's house

same field. Thanks to them, I spent a wonderful time.

With respect to dentistry, Sweden is one of the most advanced countries. Sweden is a pioneer in preventive dentistry and dental implants. Surprisingly, titanium dental implants were invented in the University of Gothenburg where I stayed. The training program I participated in had thirteen 3rd semester students. An instructor taught us how to fabricate heat-pressed all-ceramic restorations, which I had never used before. I think that this technique helps to fabricate prosthetic work effectively.

The dental clinic and dental laboratory are both located in the same building as the Dental Technology Course. At the dental clinic, dental implants are a very popular procedure while at the dental laboratory various prostheses are fabricated. The most surprising prosthesis I saw was a dog's fixed orthodontic appliance.

I also visited a dental implant factory. This company is one of the largest dental manufacturers supplying various dental products such as implants. A Japanese employee working at this factory



With professor in Gothenburg

guided me inside the company. According to her explanation, employees in the factory rotate their jobs in the middle of each day, to allow them to do various jobs so that they can feel refreshed, and they rarely extend their working time. I feel these characteristics are very Swedish. The nice working environment at this factory fascinated me.

I found many good points about both Sweden and Japan. During my stay, I was proud to hear that Japanese people who work in Sweden have a good reputation. I really feel that Swedes are so kind and friendly. It was a valuable experience for me. I am very grateful to all those who supported me to join this program and I deeply appreciate this overseas training opportunity.



Farewell party with my classmates