

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

The Fruitful Experience of the Overseas Elective Program



Kahori Cho
6th year student, School of Medicine
Clinical Training in the U.K. and the U.S.



FROM APRIL TO June, 2017, I was given the opportunity to participate in the overseas elective program in the U.S and the U.K. In April and May, I rotated in Child Neurology and NICU, both at Boston Children's Hospital. Following that was a one month elective at Accident and Emergency in Leeds Teaching Hospital. During the course of these placements, I was able to see many different cases and improve my medical skill, as well as to experience different health care and medical systems.

During my rotation in Child Neurology at Boston Children's Hospital, I was able to join different teams: the Inpa-

tient team, the epilepsy team, and the consult team which also covered a variety of cases seen at the Emergency Department. I played a role in taking new patients almost every day and presenting at rounds. The style of team rounds was what I felt is the most interesting difference between BCH and Japan; one team consists of only a small number of members; each team covered only 1/2-1/3 of the number of patients that Japanese ward teams would be in charge of, therefore, one visit to a patient's room took about 30 minutes each, maximizing patient interaction.

NICU experience was also unique. Each morning, I was able to present my patient during "sit rounds" (in order not to disturb babies with rounds). Different from Japanese rounds, nurses are a must. Nurses are the ones who know how the patients actually were during the last 24 hours, and present the data. Nurse practitioners and fellows would present assessments and plans. This system, I felt, was one of the most efficient round systems that I've experi-



Picture with Marianna, the Fellow in charge. In the Fellow and attending's room

enced, because each professional was only in charge of what they do best, saving both time and energy. This was certainly an eye-opener for me.

Each Accident and Emergency facility was huge in the University of Leeds teaching hospitals, with about 30-35 cubicles including resus cubicles. There I was expected to take history, about 5 patients each day, and formulate my own management and plan and present this to senior doctors. Because of my lack of experience in the number of patients I'd seen throughout my medical education, it was very difficult in the beginning to take history and come up with differentials at the same time. However, with experience, I got more comfortable with this process, which helped me become more comfortable around patients. I truly think this helps establish a good base for how to see patients in the future, and I'm very lucky that I was given this opportunity. It was also very interesting to learn how different the A&E and ambulance systems

were between Japan and U.K., which helped me think about what would be the best health care system.

Last but not least, I would like to thank everyone who helped to prepare and get me through daunting but fruit-

ful experience as a student doctor overseas. I strongly thought that not only the level of the institutions is important for doctors' learning, but also teaching skills are very important in maintaining high medical standards, so that a high

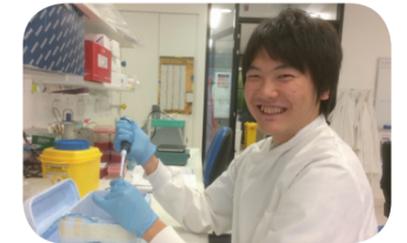
level of medical care can be provided. In the future, I hope that through acquiring good teaching skills and solid medical knowledge, I can become a good role model for others, leading Japanese medicine forward.

Report 02

Expedition of Experiment and Experience



Ryohei Watanabe
4th year student, School of Medicine
Project Semester in Australia



Doing experiments in the laboratory

THE DAYS AT Australian National University have revealed to me that diverseness and uniqueness is what I have to keep in mind in carrying out what Australians would call "fair dinkum" (honest and serious) research.

Diversity is a powerful activator to create a breakthrough. Since most of all ideas we come up with are already mentioned by another person, or covers only a limited situation, sorting out what is correct or applicable can be a challenge. When my lab members and I were talking about physical symptoms, for example, we easily realized that

clinical observation standards differed quite a lot among us. Our normal body temperature firstly is different in a range of a degree. If we think to focus on this data as an indicator of an event, there is quite a risk to overlook this difference in a homogenous group. Thus diversity can be said to decrease the possibility of ending up with a false result.

World-wide connections will help us to get contact with people with various ideas. Each person with a different background has their own perspective towards what they do. They all have different mindsets for ruling out the well-known ideas, or providing creative ideas. The more apart experience they have, the more various ideas that can be figured out.

Outside the lab, in the kitchen of the dormitory, I daily had a chance to chat with PhD candidates from all over the world. There we had a serious discus-

sion on what we can do with soy beans. To my surprise, people in Indonesia also use fermented soy beans *tempe*, which has similar but less pungent odor compared with Japanese *natto*. This discovery can quite easily inspire one to create a hybrid between those fermented foods, or use *tempe* in another Japanese food and vice versa.

It requires a huge effort for a person to change their customs. As Australia is rich in diversity, everywhere everyone was pleasantly gathering and comparing their own traditions from their original nations. There I learned how I should act as a member of a diverse group, and experienced a reconstruction of my thoughts and customs, inspired from unique traditions and ideas from all over the world. What I have to do is not to become a slave to global standards, but to broaden my perspectives.



Dinner with members of the Burgio group

Report 03

Wonderful Experience in Seattle



Reina Hirono
4th year student, School of Health Care Sciences
Study program in the U.S.



Listening to lung sounds

IN THIS STUDY trip, I had the opportunity to visit a lot of facilities. From these experiences, I learned how different the health care systems are between the US and Japan and how to care for patients who have various backgrounds.

Firstly, I was surprised at the difference in the practice of nursing students. When we went to the learning lab in the University of Washington (UW) and Seattle University, the patient dolls looked like actual humans, because

they were able to show their vital signs, heart sounds, lung sounds and intestinal peristalsis sounds. Moreover, when they had pain, they could actually frown,



With TMDU Harvard Medical School Exchange Clerkship students at the famous Ether Dome

sweat and talk about complaints. Also, in the examination for students, teachers manipulated the dolls to create an actual clinical situation. It was wonderful, because it can reduce the reality shock for students when they start working at clinical sites. Also, the dolls can say various words, including Japanese. The US has a multinational society, and there are many opportunities to provide medical care for patients who have various backgrounds. However, nurses can take care of patients appropriately according to their backgrounds even though they have a language barrier, so this training is a good opportunity for students to learn how to provide sufficient medical care to such patients. I think we will have the same problem in Japan in the future, so nursing education may have to be changed so that students acquire skills to care of such patients.

Secondly, I was impressed when we attended the lecture at UW. The content was about nursing leadership. I could integrate the lecture with what I learned from practical training in Japan. We had the opportunity to give a presentation



My extended family

about Japanese nursing leadership in front of the UW students. In Japan, as part of team medicine, medical professionals hold conferences. The members are doctors, nurses as well as social workers and so on. However, such conferences seemed to be rare in the US. I thought it was due to the difference in the health care system.

Thirdly, we visited two hospitals in Seattle. One was the University of Washington Medical Center (UWMC). In this hospital, I learned how Nurse Practitioners (NPs) make them successful. I learned that an NP is engaged in initial medical care. Even in the United States, the shortage of doctors is getting worse especially in rural areas. As a result, NPs are expected to provide efficient medical treatment by diagnosing patients. However, if patients' conditions are serious, they can be connected with urban hospitals. Also, since an NP is not a doctor but a nurse, they tell their opinion as a nurse to the doctors and promote team medicine smoothly. NPs are not legally licensed in Japan. However, because of the aging of the population, NPs will also be needed in Japan, too.

Fourthly, we volunteered at two geriatric facilities. There were various patients of different nationalities. Therefore, I had a problem with language. Although I tried to use intelligible English, I sometimes could not make them understand well. In addition, I could not



With UW students

be cognizant of the patient's signs and prolonged pain. Therefore, I asked staff how they realized patients' needs. They prepared a compatibility table of frequently used words. Moreover, they looked ahead at the request of the patients and asked for things before having to call for them. For example, they were trying to recommend patients going to the toilet before and after meals. However, it is most important to look closely at patient's expression and try to be considerate of patients' feelings. From this volunteer activities, I noticed what is important for foreign medical care is not only to deal with the language barrier and cultural differences, but also to be considerate to patients even if they are foreign patients.

I stayed with a host family during the period. My host family called us an "extended family" and treated us just like real family members. Therefore, I could spend time there without feeling lonely. Also, all of the people I met in the USA gave us kind words. I thought it is normal for American people who accept multiculturalism.

Report 04

A City where Education and Society Collaborate



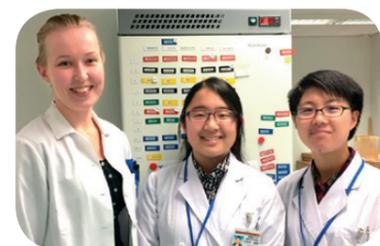
Mutsumi Gotanda
3rd year student, School of Health Care Sciences
Study program in Finland



DURING THE LAST summer vacation, I participated in a study program at Seinajoki University of Applied Sciences (SeAMK), Finland. I would like to share my experience there.

At SeAMK, we took some lectures and joined practical training. Dr. Jaakkola

Kontturi and Dr. Harri Jokiranta, directors of Seinajoki city, taught us about the efforts being made for elderly care and the renewal of the healthcare and social welfare system. I was impressed by these progressive policies. In the training, we practiced blood withdrawal



With Ms. Monica Nieminen, cell biologist in pathology

and blood glucose tests with public health nursing students.

In addition, we visited several health-care facilities. At the Home Care center, I heard about how they utilize informa-

tion technology. Time management and documentation are conducted electronically. Public health nurses and registered nurses are responsible for different work and the work was done in a vibrant atmosphere. Both help each other to make progress smoothly.

The health center provides regular consultations for patients with chronic diseases. It takes 30 to 60 minutes per one patient. I thought it may have caused overwork but there are no such kind of problems. This is because they control demands for medical services well and people can receive care or treatment not so many times but at a high quality. Neuvola, a perinatal care facility, is attached to the center and people can receive basic health services at the same place.

We learned about the social function



After practical training with public health nursing students, Seinajoki University of Applied Sciences

Report 05

My Precious Days at Oxford



Suzu Chida
4th year student School of Dentistry
Study program in the U.K.



OXFORD IS A great city for students and all people who have a desire for studying. More than 6 months have passed



At the Oxford Natural History Museum with my classmate Yuka KOIKE; who had been to King's College London last summer

of Seinajoki Central Hospital (SCH). There are only five university hospitals and SCH is one of the main hospitals in the twenty hospital districts in Finland. The hospital works as an education hospital too and students in SeAMK do on-the-job training there. In this study program, we visited the clinical laboratory in SCH to observe the work place for two days. In Finland, "Bioanalyttikko" take charge of laboratory work such as microbiological and pathological tests. What is remarkable is that a physiological function test is included. This is similar to Japanese clinical laboratory scientists.

On holidays, we enjoyed sauna and swimming with three nursing students at summer cottage. In addition, I fortunately had chance to homestay with Ms. Soili Alanne, who works as dietician in SCH. I talked a lot with her and her family about careers for women, Finnish history and multiple native language education.

Finland, especially in Seinajoki, SeAMK, is a place where the city governance and other health facilities have strong connections and collaborate mutually. This system makes it possible to



With Moomin statue at Moomin Museum in Tampere

provide a well-rounded education for students. On the other hand, education is returned to the city in the form of health care services or other staff. I thought this is how Finnish society manages to work so well.

Before I left for Finland, I had done an internship at a hospital in Japan and visited the University of Washington Medical Center in the US. I had also experienced volunteer activities at an elderly care home. Through whole of last summer, I could feel how each country's health and social welfare systems are established reflecting people's way of thinking and culture in a broad sense. It was really exciting and what I never get in my daily life. I would like to express my gratitude for everyone who supported me through these study programs.



The photo I was using as my thumbnail

analyzing the location and amount of the neuro-secreting protein neuroserpin, with a Hypoxia-Ischemia mouse model.

Hypoxia Ischemia is a serious disease for neonatals because it can cause a high rate of neonatal death and cognitive disability, but as there are few clinical treatments understanding the cascade of the disease and to find an effective neuro protective protein is important. My summer project was basic research but had a strong relation to

clinical areas so that I could learn how important it is to pair basic research and clinical trials with each other. Doing experiments was very interesting for me but I faced many difficulties in getting good results, and this despite reading lots of papers and having many discussions in my laboratory days. I had absolutely no idea as to how to solve such problems by myself and was often disappointed with my lack of knowledge. At times of difficulty, my supervisor often told me that the important thing is not to stop thinking about the reasons why I was not succeeding and to improve my knowledge by reading more papers in order to change failure into success. Such words encouraged me a lot and I could keep my motivation high in searching for a good result.

After finishing all the experiments and the final presentation, the professor told me "It must have been hard days but you did great job. Our aim in educating students is not to make technicians but

developing them like one would teach someone how to swim, and supporting their efforts in becoming good swimmers. This is Oxford." These words remain in my mind and I came to understand the importance of thinking and making efforts by myself.

Of course, my free time was very stimulating as well. My days in my pretty accommodation are my treasure. It was small, but all the people who lived there were so kind and took me out to talk with me, having dinner parties and movie nights! All of them were so smart and proud of their countries and respected one another's opinions and liked to have discussions. I learned the importance of not hesitating to show my opinion, having confidence in myself and asking questions about things.

Every tiny moment in Oxford became my treasure, doing experiments, talking with my friends, reading Harry Potter (and sometimes having a nap) in the park, going to the museum to see Ein-



Harry Potter quiz party at Blackwell. I took part in this event with my friends at my lodgings

stein's blackboard and thinking about my future in the old streets. All my summer memories are still alive in my mind and I started feeling a subtle change taking place in me. I really want to say thank to TMDU Dental School which gave me an opportunity to go abroad, and to all the people who supported me and also the "Tobitate!" study abroad scholarship project. I want to connect my experiments to my future and someday, I want to go to other foreign countries and back to Oxford to see my professor, my supervisor and all friends.

Report 06

Lovely Days in Dublin



Haruka Okamoto
4th year student, School of Oral Health Care Sciences
Study program in Ireland



FORTUNATELY, I GOT an opportunity to visit Trinity College Dublin for two weeks as a dental hygiene student.

During my stay in Dublin, I studied with dental science, dental hygiene and dental nurses students every day and I also had some lectures and clinic lessons at the dental college hospital.

The most impressive thing was what I

learned in clinic lessons and this was not only dental staff but also dental students were good at communication. Although I had known the importance of communication with patients that was my first time to feel the reality of it. Communication is not about just talking, but showing an interest in the patient.

Trinity College Dublin has a long history and the buildings were so lovely. The college has many departments so many events were held in the college on the weekends.

In the city, Trinity College Dublin is one of the famous places because of the Long Library that has a book of Kells, so many tourists visit the college every day.



At the Irish pub with friends



Mates at the college

I had a really good time in Dublin, actually. It was my first time to stay in Dublin, so everything inspired me. Also I was shocked many times, as it was such a different culture. Although I was confused at first, I came to think everything would be precious experience for my future. I could feel the understanding a little of the meaning of "Think globally, Act locally."

I had been to abroad only for studying language before I went to the Ireland, but I had never in my life visited and studied at a foreign college. Now I am sure that this is my first and also my last time in my life to have such an experience. I think that was different from

going abroad just for sightseeing. Of course, there were many things to confuse me during my stay in Dublin. But people there were so lovely, teachers, students, patients and host families. Not only them, but all Irish people I met in Dublin were all kind and they could help me all the time. I have no confidence in my communication skills and English though, but I tried my best and

I could come to tell my thoughts to others. I have learned from my experiences of staying in Dublin that it is so important to show my own ideas to others to live actively even if I do not have enough knowledge or sophisticated skills. Thanks to the help of many, I am sure that I had a precious time there in Dublin. I really appreciate it all. Thank you so much.



Lovely building of the hospital

Report 07

Precious Experiments in Sweden



Nahoko Komiya
3rd year student, School of Oral Health Care Sciences
Study program in Sweden



I VISITED SWEDEN to learn at the University of Gothenburg. I attended the Dental Technology Course for three weeks. I could fabricate many prostheses in daily laboratory work, and visited the dental clinic in the university, the laboratory in the clinic and the implant center at a company. There were many interesting experiments for me.

There are 2 reasons why I wanted to study at Sweden. First, I heard Swedish people are more interested in their teeth than Japanese people. Most people have a dental examination in the clinic. Second, the public health service in Sweden is better than Japan, so Swedish people can receive various treatments at a lower price. For example implants, all ceramic crowns, and so on.

I fabricated three prothesis in the Dental Technology Course. I finished making the all ceramic crown (zirconia

frame and porcelain) as a first. Next was the e-max crown (casting by porcelain), and I finished the all ceramic bridge (zirconia frame and porcelain) in the last day of my stay. I think making the bridge was the most difficult because you have to use three times the porcelain of the crown for the bridge, and you should pile up porcelain as fast as you can.

Luckily, I participated in the 50th year anniversary ceremony of the dental facility. I listened to presentations about the history of dental facility and the future of dentistry by the teachers and students. Those presentation were very interesting. I remember the speech about the importance of digital dental technology for the future. When I listened to the speech, I thought I have to learn not only traditional dental technology, but also digital dental technology because digital dental technology will be commonplace in no time. The ceremony lasted all day, and there were



In the dental clinic in university

booths for dental companies outside the main hall. I enjoyed this event and learned new things.

I had opportunities to observe the dental clinic and in a company. I visited the dental clinic of the university. I watched dental examinations by the dentist who was a specialist in prosthodontics. Most of patients I saw received implant treatments. I surprised by one patient who used a removable denture which had an implant, and thought it is good for the support of the denture.

I also visited implant center at a company. I think it was most interesting observation for me. The guide of the center told me how to design implant coping, and that was a valuable experience.

In addition, I enjoyed life in Sweden. Swedish culture was interesting, for example, "fika". At "fika" time, you can enjoy coffee and tea with sweets, and talking. I ate cinnamon roll and cake and other sweets with friends in the weekend. I also enjoyed communication with exchange students from other countries. Gothenburg was comfortable to live in and a beautiful city. On the weekends, I enjoyed the events for exchange students, and I could learn about another country's culture.



Experiments in Sweden were very important for me. I want to thank for teachers and parents. Here i am in front of the Implant center



With my class mates and professors