Seventh Recipient of the International Observership in Hepato-Biliary-Pancreatic Surgery —My Experience in the International Observership Program for HBP Surgery—

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I was the seventh recipient of the International Observership in Hepato-Biliary-Pancreatic Surgery. I spent 2 years, December 2007 through November 2009, rotating between three institutions: Virginia Mason Medical Center (Seattle, WA), UCLA Medical Center Los Angeles (Los Angeles, CA), and Mayo Clinic (Rochester, MN).

The distinctive feature of this program is the opportunity to conduct clinical research under the guidance of globally recognized pancreatic surgeons, namely, Dr. L. William Traverso, Dr. Howard A. Reber, and Dr. Michael B. Farnell, who served as host doctors at the respective institutions. The study abroad program is unique: one can see how the host doctors approach patients, see how they perform surgery and post-surgical management, and actually witness clinical treatments in the field of heapto-biliary-pancreatic surgery in the U.S. The three institutions I visited are known as high-volume centers for pancreatic surgery, and the host doctor at each institution performs 50–60 pancreatoduodenectomies every year. Moreover, the three hospitals are recognized among the best hospitals in the U.S. because they offer very high-quality medical services. By participating in this program, one can see the differences in the medical training and residency systems between Japan and the U.S. Most importantly, one can conduct clinical research and engage in useful discussions with residents and fellows.

1. Dr. L. William Traverso - Virginia Mason Medical Center (Seattle, WA)

Dr. L. William Traverso served as the host doctor at this institution. Dr. Traverso is well known as the first doctor to advocate, around 1978, pylorus-preserving pancreasticoduodenectoy (PPPD) for the sake

of preserving postoperative digestive/absorptive function. Seattle is the largest city in the state of Washington, which lies in the northwest corner of the U.S. and close to the Canadian border. It is a medical hub. It is also a naturally beautiful city where global companies such as Microsoft, Amazon, Starbucks, and Boeing are headquartered. It was where I started the program, so I was a little overwhelmed at first, but thanks to my predecessor, I was able to begin my study right away.

In my very first meeting with Dr. Traverso, we discussed my goals in detail, and he presented me with many interesting research topics. During my stay there, I received individual tutoring in my research topics. Dr. Traverso performed surgeries on Mondays, Wednesdays, and Fridays, and he held outpatient consultations on Tuesdays and Thursdays. Almost all surgeries he performed were for pancreatic diseases, and he carried out more than 50 PPPDs a year. For cases of pancreatic cancer, he was supported by Dr. Vincent Picozzi (oncology) and Dr. Richard Kozarek (gastroenterology medicine), and staging laparoscopy for the latest multidisciplinary treatment and locally progressive pancreatic cancer was actively performed there. On the weekends and holidays, Dr. Traverso normally devoted his time to conferences, but he also spent time with me so that I could report on the progress of my research and receive advice. In addition to observing the surgeries, I made clinical rounds with residents, and I attended conferences and lectures provided for residents, so as to expose myself to the English-speaking environment. My research in Seattle involved the following: updating the web-based database with data pertaining to anastomic leakage, creation of the Accordion Severity Grading System Classification Calculator for evaluation of surgical complications, creating a web-based calculator for pancreatic fistula based on the International Study Group on Pancreatic Fistula (ISGPS) recommendations, and planning and designing a randomized controlled study on pancreatic duct stenting. I also did some research on pancreatojejunostomy performed with a surgical microscope, analyzed survival after IPMN removal as well as the long-term results of post-operative radiation chemotherapy. Dr. Traverso made sure that everything was going alright for me even after my observation period ended in Seattle.

## 2. Dr. Howard A. Reber - UCLA Medical Center (Los Angeles, CA)

The UCLA Medical Center is the No. 1 medical center in the western U.S. It is located in Westwood and is ranked one of the top 5 hospitals in the U.S. In 2008, the hospital was renamed the Ronald Reagan UCLA Medical Center. It is considered part of the vast UCLA campus and can be regarded as one of the world's most up-to-date medical facilities. Dr. Reber, the host doctor there, is a key opinion leader in the field of pancreatic surgery and has been recognized as one of the top doctors in the U.S. Patients come there from all over the world, including Japan, for surgery. Dr. Reber performs surgery with exceptional carefulness, paying very close attention to minimizing blood loss. He achieves PPPD with as little 100-200-cc blood loss. At joint conferences called by Dr. Reber, experts from other departments discuss each case and provide their expertise (sometimes in heated discussions), and I learned a lot about how a treatment plan is decided upon for each patient. Generally, Dr. Reber included one or two residents in each surgery, and most of the time, the residents themselves performed the surgery, with Dr. Reber supporting them. Sometimes, when no resident was available, he would perform PPPD solely with the help of the nurses; this was very impressive.

## 3. Dr. Michael B. Farnell - Mayo Clinic (Rochester, MN)

Mayo Clinic, like the Ronald Reagan UCLA Medical Center, is a medical facility that represents the U.S. It has been recognized yearly as one of the best U.S. hospitals. It is located in a town called Rochester, which is actually centered around Mayo Clinic. Rochester abounds with nature, and I found it to be a safe and comfortable place to live. Not only did the medical facility (quality of medical treatments and the buildings and equipments) impress me but also the thoroughness and consideration the medical staff showed to the patients. Even I, who was not a patient, was asked by many staff members whether they could be of assistance when I appeared lost. At the outpatient clinic, all staff were very polite, and I was impressed with the high-quality patient education. Interpreters were provided for non-English speakers (including Japanese!). As at the Ronald Reagan UCLA Medical Center, one nursing staff at the Mayo Clinic was assigned to each doctor, and he/she was present at the outpatient clinic, managed the surgery schedule, talked to patients, and helped with the paperwork. He/she also served in the operating room, observing the patient's status. This allowed the doctor to concentrate on treatment/surgery. In the operating room, surgical technicians, who were assigned to each doctor, assisted with surgery and sometimes provided residents with training. This system is a particular feature of this hospital. The research environment was wonderful. I was offered a research grant and supported in various ways.

Dr. Farnell, host doctor at Mayo Clinic, performed 2-3 surgeries per day—gastrointestinal surgeries in addition to pancreatic surgeries. He performs surgery smoothly, with no interruptions. I also had the opportunity to attend surgeries peformed by Dr. David M. Nagorney, a liver specialist, and Dr. Michael L. Kendrick who is well known for laparoscopic surgery. At Mayo Clinic, I analyzed pancreaticoduodenecmy cases and performed a risk analysis of postoperative pancreatic fistula based on CT scans.

The most meaningful part of my Observership experience was understanding the differences in clinical training between Japan and the U.S. (difference in the medical systems and in the postgraduate medical education system). The average hospital stay for pancreaticoduodenecmy was 10 days at VMMC and at UCLA and 12 days at Mayo Clinic, both of which were shorter than the stay in Japan. As for complications, pancreatic fistula is a big concern in the U.S., too, and at all three institutions, the incidence of clinically problematic pancreatic fistula (ISGPF Grade B/C) was 10-13%. For drainage, the Jackson-Pratt drain (normally, 2 for pancreaticduodenectomy and 1 for distal pancreatectomy) was used at all three institutions, and for Grade B/C pancreatic fistula, patients were discharged with drains still in place and were advised to clean them out under supervision of the nursing staff. The surgeries are most often performed in standard fashion, and the trend there is to avoid division and anastomosis of major arteries as well as extensive lymph node resection. This differs from the practice in Japan, where doctors perform surgeries as a team. The postgraduate medical education system in the U.S. is systemized, and this differs greatly from the system in Japan. At all three institutions, lectures and conferences are held often for residents, and by the time one finishes his/her residency, he/she is able to make presentations and lead discussions. Residents can scrub or function as the first assistant in surgery, and they are responsible for postoperative management of patients; thus, they are given many opportunities to deal with different cases. Once they finish the 5-year residency program, some move into a fellowship position in a specialized field. However, there are not many hepato-biliary pancreatic surgery fellowship in the U.S., so residents are very enthusiastic in clinical situations.

For my clinical research, I received very good advice on creating a database, putting my thoughts and ideas together to pursue my research, and on making presentations. I was also given opportunities to present my research findings at conferences. In addition, the program also gave me a chance to make friends with doctors from many countries. I hope this observership program will continue to provide many Japanese doctors as wonderful an opportunity as mine.

I would like to express my heartfelt gratitude to the host doctors who helped me, both professionally and privately. I would also like to thank Prof. Takashi Takada, President of JHBPS, Prof. Satoshi Kimura, Chair of the International Exchange Committee, and many other members of the Society who kindly gave me this valuable opportunity to study in the U.S.



Downtown Seattle, Washington: Virginia Mason Medical Center is a private hospital located in downtown Seattle.

Dr. Traverso's operation:

Pancreato-jejunostomy (duct-to-mucosa, internal stent; 6-0 Vicryl, Castroviejo Type Needle Holder) performed with use of a microscope.





Dr. Traverso's surgery:

After extraction of the specimen, he did tissue sampling for the tissue bank and inked the tissue with a pathologist.



Dr. Traverso and me: At a Pancreas Club dinner, DDW 2009 in Chicago.



Downtown Los Angeles, CA:

The buildings in the foreground are the Ronald Reagan UCLA Medical Center and part of UCLA itself. Downtown Los Angeles is in the background at left.



Ronald Reagan UCLA Medical Center: UCLA Medical Center, built in June, 2008.



Dr. Reber's surgery: Dr. Reber is seen here performing PPPD with a senior resident.



Dr. Reber, Ms. Clearkin (registered nurse), and me:



Downtown Los Angeles, CA: Saint Mary's Hospital where the patient wards and operating rooms are located.



Mayo Clinic, Rochester, MN: Outpatient clinic building



Dr. Farnell and me: