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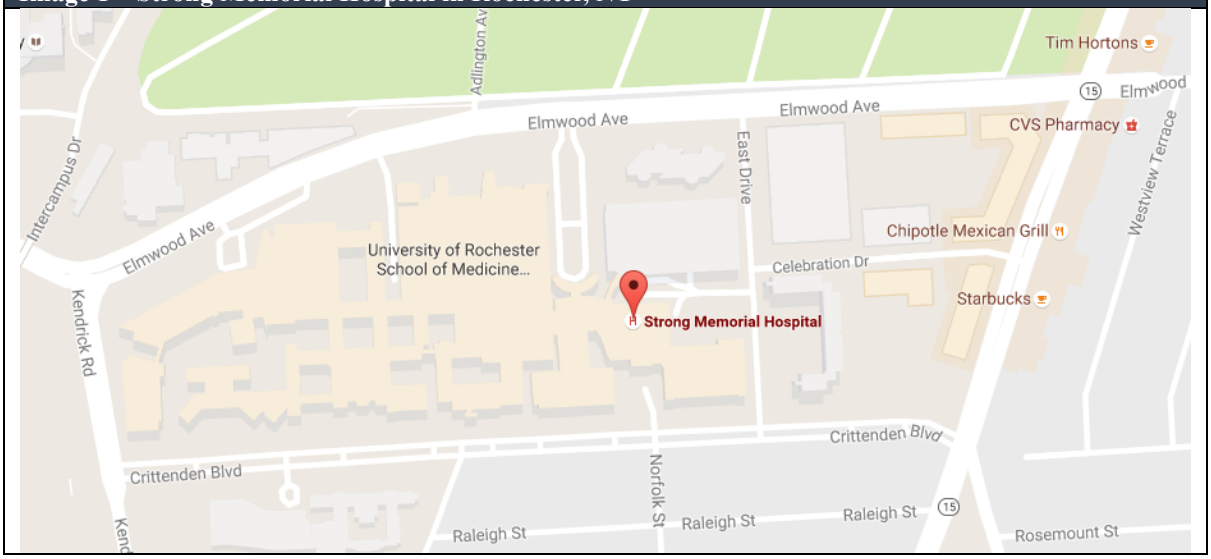
My First United States Clinical Experience

박대용(본과 4년)

My clinical elective in Strong Memorial Hospital (SMH), University of Rochester Medical Center (URMC) was one of the most memorable experiences in my life. Since my premedical years six years ago, I dreamed of becoming one of the handful in my class who takes the challenge of leaving the comfort zones within Korea to become a medical doctor as well as a researcher in the United States. In order to pursue a career in the United States, however, clinical experience in the United States was integral since it was not only evaluated in the National Resident Matching Program (NRMP) but also required in that a letter of recommendation from an American attending physician was essential in the application process. With the aid of Green Project by SNUMCAA, I had the opportunity to participate in a four-week clerkship in the University of Rochester Medical Center, whereby I can procure the two prerequisites necessary to match into a residency program in the United States. As a result, it would be no exaggeration to state that my time in Rochester stands as a milestone in my life – a life-changing experience that opened my eyes to what I want to become and do in the future.

Image 1 – Strong Memorial Hospital in Rochester, NY



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Because Monday, the 4th of July, was America's Independence Day, my first attendance in SMH was the orientation on the morning of Friday, the 1st of July, when Ms. Tressa Newton, the Program Coordinator, welcomed us by introducing the program, assigning personal lockers, and giving a tour of the hospital. I was supposed to receive the electronic medical record (eRecord) training in the afternoon, but because the security team of Strong had not registered my name into the system, I was not able to finish my training on the day of my orientation. Consequently, I did not have access to the eRecord on Tuesday the next week, my first day in the cardiology consult team, so my clerkship was limited to merely observing the attending professor, Dr. James Eichelberger, and the residents.

Eager to see newly consulted patients on my own, I skipped supper and went right to eRecord training as soon as my clerkship ended at around 6pm on Tuesday. After about five hours of training, I finally gained access to the electronic medical records, and from Wednesday on, I began seeing new patients on my own and presented them to the attending. The experience was truly rewarding as it was considerably different from the one I was used to in Korea. Internal medicine clerkship in Seoul National University Hospital (SNUH) consisted majorly of listening to lectures in classrooms and seeing only one or two patients

per week. In addition, the patients we saw had already been diagnosed and treated by the residents, so most students merely reviewed the electronic medical records and restructured them into a student case report. Such clerkship was indeed beneficial, but working no differently from the residents in SMH was challenging enough to compel me to integrate all my medical knowledge and search reliable resources to formulate my own personal assessment. After repeating such exercises three to four times per day for a week, I absorbed a stream of clinical knowledge and gained more confidence in independently seeing a patient. Whereas I had felt speculative of managing a new patient in Korea, I became more ready as well as competent in accomplishing the same task after my clerkship in the United States.

Electrified at this new opportunity to learn clinical knowledge by examining and assessing my own patient, I came in an hour early every day to be the first one to see early consults and follow up the patients I had seen the previous day. Every day, I also stayed in the hospital as long as possible, making sure not to miss any new patients. I asked Dr. Erica Miller, the Cardiology Fellow, if I could continue seeing patients during the night shift, but she replied that students should not have to spend more than 24 hours in the hospital. Disappointed by the fact that I had missed clerkship on Independence Day, I also asked permission from the attending professor if I could come in on a Saturday and he more than welcomed me to do so. As a result, I volunteered on the weekend to help the resident who was working alone and also see newly consulted patients on my own.

While presenting, my assessment and plan of the patient were not perfect all the time, but I enjoyed the process of learning and receiving feedback from Dr. Eichelberger, an expert in cardiology. Dr. Eichelberger examined patients with compassion and professionalism, and it was a great privilege to learn from such a specialist for a week. Therefore, I always gave my full attention from the beginning to the end of clinical rounds, and whenever Dr. Eichelberger spotted a clinically significant finding from the patient, I made sure to observe and appreciate it myself. I also marveled at how the professor meticulously analyzed electrocardiograms as I longed to one day become as proficient in ECG reading as he.

Meanwhile, I also endeavored to contribute to the team by researching relevant topics concerning the patients we had seen that day by reviewing and outlining distinguished journals that night. The next day, I asked approval from the attending professor and did three-minute presentations to the cardiology consult team. Namely, I presented on the following topics during the course of the week: duration of dual antiplatelet therapy after placement of

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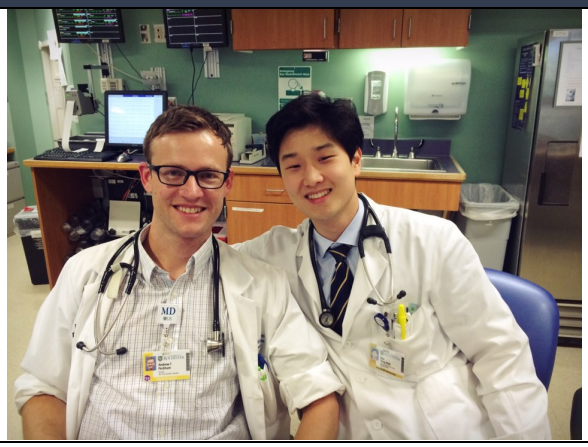
drug-eluting stent, dual antiplatelet therapy (DAPT) score, and comparison of furosemide versus torsemide in heart failure patients. It was a great joy to serve the team in one way or another, and I realized how important it is to put more hours into studying up-to-date guidelines in order to take part as a helpful team member.

Image 2 – Week 1 Cardiology Consult Team



Picture on left: from left, Dr. Erica Miller, Dr. Sean Philippo, Dr. Andrew Peckham, me, Dr. James Eichelberger, Dr. Kuljinder Deol
Picture on right: Dr. Andrew Peckham and me during my clinical elective on Saturday

On the second week of cardiology consult, most of the team members changed, including the attending professor, cardiology fellow, and some of the residents. The new attending physician was Dr. Seth Jacobson, also a cardiology expert, but more humorous and easygoing. Unfortunately, we need not receive many consults this week – as low as only three consults in a whole day – so I did not have the opportunity to see as many patients as I did last week. However, Dr. Jacobson used the free time we had to study review papers on stress-induced cardiomyopathy, pericarditis, cardiac tamponade, and so on. On top of the review activities, we also investigated sample ECG board questions which were incredibly challenging as much as they were fascinating. By analyzing dozens of ECGs, I polished my ECG-reading ability like never before, learning new points such as R wave progression, Sgarbossa's criteria, and left anterior fascicular block. I also contributed to the team by presenting reviews on myocarditis and anticoagulation in venous thrombosis of upper extremity. Although not as intensive and busy as last week, my second week in cardiology consult was beneficial as well as enjoyable in that I reached the pinnacle of my ECG-reading skills and encountered rarer cases such as stress-induced cardiomyopathy and Wolff-Parkinson-White syndrome.

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Image 3 – Week 2 Cardiology Consult Team

Picture on left: from left, Dr. Seth Jacobson, me, Dr. Sean Philippo, Dr. Tyler Slyngstad, Dr. Hannah de Groot, Dr. Preya Simlote, Dr. Kuljinder Deol
Picture on right: Dr. Tran Tuan, an anesthesiologist in our cardiology consult team, and me

From my third week onwards, I progressed to the infectious disease consult team. My clinical knowledge on infectious diseases was limited to my one-week infectious disease class in my sophomore year and my microbiology class in my freshman year that I barely remembered. In other words, I was a novice when it came to infectious diseases. However, Dr. Gangat, the Infectious Disease Fellow, took time to teach me about the coverage and duration of antibiotics step by step. I meticulously recorded all the important information onto my note and created a table summarizing the coverage and noteworthy aspects of commonly used antibiotics. For the first two days, I shadowed Dr. Gangat, absorbing his teachings while assisting him since we surprisingly did not have a resident in our team. Finally, after two days of training and studying, I tried seeing a patient on my own for the first time. The task was arduous and confusing since most patients consulted to infectious disease suffered from complicated diseases with extensive histories, but I gave my very best and succeeded in presenting the case to the attending. My presentation was not perfect, but the attending and fellow was impressed by my work, and after my first practice, I finally acquired the knack of managing an infectious disease consult.

My first week of clerkship in infectious disease was truly revealing and efficacious as I digested a myriad of clinical knowledge and made it my own. I was incredibly grateful of my opportunity to participate in the team, and was especially thankful for Dr. Gangat who made special efforts to render my clerkship one the of the best learning process in my life.

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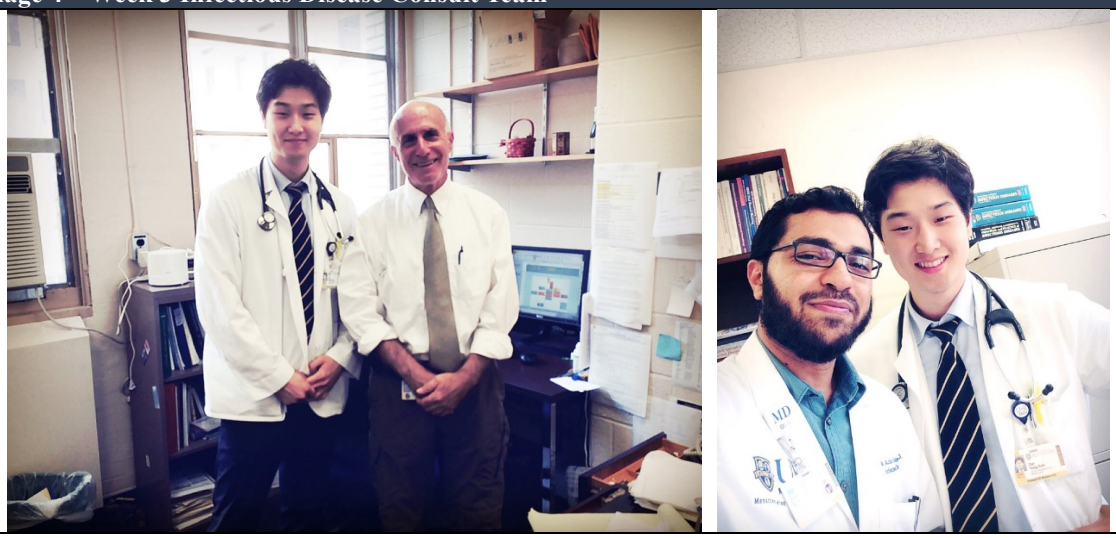
Image 4 – Week 3 Infectious Disease Consult Team



Picture on left: Dr. Paul Graman, the attending infecious disease physician, and me
Picture on right: Dr. Mohamedazhar Gangat, the infectious disease fellow, and me

My last week of clinical elective in infectious disease was less of a hassle than the previous week now that I had completed a week. Every day, I endeavored to see all the new consults, which amounted to presenting two to three patients per day. I voluntarily came in earlier every morning to examine the patients I saw the previous day, making sure to update the team on the patient's new test or exam results. Hoping to contribute to the team, I also continued to research various papers associated with the patients we saw that day and gave one to two-minute presentations on topics such as antibiotic-induced thrombocytopenia and ceftaroline for treatment of MRSA bacteremia. Earlier in the week, I discovered that our attending physician, Dr. Michael Keefer was the Director of University of Rochester's NIH-supported HIV Vaccine Trials. As a result, when clinical rounds finished early, I visited Dr. Keefer's office hoping to learn about the history and current state of HIV vaccines. Dr. Keefer welcomed me and explained to me about the past and the future of HIV vaccines. Unfortunately, however, we received a plethora of new consults on Thursday and Friday that I could not learn anything more about HIV vaccines at the end of the week. Nevertheless, my last week in infectious disease consults team was definitely a success as I had become much more knowledgeable than I was last week. I learned more about the selection and duration of antibiotics, and I had the privilege of observing Dr. Keefer and Dr. Zanoria make difficult clinical decisions. The field of infectious disease that I newly discovered in Rochester was a fascinating world in which antimicrobials battled against countless bugs, transmitting the outcomes of the skirmish via clinical manifestations and test results.

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Image 5 – Week 4 Infectious Disease Consult Team

From the left, Dr. Michael Keefer, Dr. Catherine Zanoria, microbiologist, and Dr. Dimitrios (Jim) Manou

After a month of clinical electives in the United States, I would have to say that one of the greatest differences between healthcare in Korea and America is time. Korean doctors have to see many more patients each day to the extent that an encounter with a patient only lasts for approximately three minutes. I remember observing in an ophthalmology outpatient clinic in SNUH where the professor saw more than 200 patients just in the morning. However, doctors in the States are given the luxury of time to see each patient for about 30 minutes, allowing them to interact more with the patients. Physical examination was much more emphasized, and the doctors did not leave the room until all the questions of both the patient and the guardians were answered. Doctors also spent much more time explaining medical conditions and test results in a language facile enough for the patients to comprehend, and since patients better understood what was happening to them, clinical decisions better reflected their opinions. As a result, doctor-patient relationships were exemplary in the United States, leading to greater satisfaction of both the patients and the doctors.

Moreover, since doctors in the United States had more time, they funneled more energy in training residents and medical students. I believe such kind of clerkship in the United States was possible because healthcare providers had more time in their hands. All the attending physicians emphasized history taking and physical examinations. Dr. Eichelberger especially underscored measuring jugular venous pressure to evaluate volume status and painstakingly listened to heart murmurs, even estimating the severity of aortic stenosis by

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assessing the different characteristics of the murmur. During my four-week clerkship in Rochester, I also had the opportunity to appreciate numerous heart murmurs, an experience I never had during my past two years of clerkship in Korea. In addition, I learned how to examine pulsus paradoxus and maneuver the patient in various positions to accentuate certain murmurs. On top of the comprehensive physical examinations, I was trained to take extensive medical, social, and drug histories especially during my rotation in the infectious disease consult team. Every lunch, I also went to the internal medicine noon conference where lectures by URMC professors and free meals were provided to all residents and medical students. I truly enjoyed the education-oriented environment that stimulated my mind to grow every day, and I utilized every opportunity to learn and think critically.

Although the healthcare in America took pride in many superior aspects, it also had its drawbacks which I spotted during the course of my clerkship. Firstly, healthcare was very costly to the point that hospitalization and treatment pushed many poorer families toward bankruptcy. Secondly, almost all patients that I saw suffered from a complex of diabetes mellitus, hypertension, chronic kidney disease, and coronary artery disease. Diabetes and obesity were so rampant in the American society that they seemed to act as the underlying cause of a myriad of morbidities. I was shocked to see morbidly obese men in their thirties and forties who suffered from myocardial infarction or had to undergo bilateral below-knee amputations because of chronic osteomyelitis and bacteremia provoked by uncontrolled diabetes. Thirdly, many patients, especially the ones from lower socioeconomic status, reported of using illicit drugs, which contraindicated peripherally inserted central catheter lines. While rotating in infectious disease, I also encountered many cases concerning hepatitis C, AIDS, and polymicrobial bacteremia due to the infusion of unprescribed intravenous drugs. Although the United States led the world in medicine, it still had some room for improvement particularly in primary prevention and education of its citizens.

All in all, my clinical elective in Rochester opened my eyes to the bigger world outside Korea and provided me with the opportunity to learn countless clinical pearls which I had not known before. I greatly appreciate SNUMCAA's Green Project for supporting me in my educational quest. With the clinical experience in the United States and the two letter of recommendations I received from attending professors, I am closer to fulfilling my dream of pursuing a career in the United States, and I hope to become a member of SNUMCAA one day and help students like me dream and venture out of Korea.