

This summer, a classmate and fellow Brody Scholar and I traveled to several parts of Japan. My goals for the trip were to study the differences between Eastern and Western medicine, as well as understand the challenges the Japanese people and physicians are currently facing as a result of last year's earthquake and tsunami. Traveling to disaster areas and observing physicians throughout Japan, we achieved just that and much more.

Our first week was spent in Sendai, Japan where we were primarily comparing treatments in the East with those here in the West. Within the Japanese culture, many physicians use and some patients prefer Kampo medicine, which is traditional style medicine using herbs and acupuncture. Takayama Sensei lectured to us on the history of Kampo medicine and explained it's current use as a diagnostic tool and therapeutic agent. The basis is much like the Chinese yin and yang-it is centered on chi, a balance of internal energy. I learned about the use of acupuncture and had an opportunity to use the technique. I was also able to observe the physicians using both Kampo medicine and acupuncture to treat patients. Several hundreds of years ago, someone labeled what's called meridians along the course of the human body. These meridians are used in acupuncture to treat certain illnesses like digestive problems or muscle and joint pain. Because of all of the destruction with the tsunami and the inability to transport resources, Kampo medicine was especially important during the hours and days right after the disaster. When Western medicines were limited, physicians were able to use herbs and more traditional type medicine to treat patients who were suffering.

During our time in Sendai, we were also able to observe in the operating room, where we learned the basics of anesthesiology. There is a lot more that goes into anesthesiology than what I'd imagined. It involves not only the original sedation and final waking up of the patient, but it's important that the anesthesiologist maintains normal vitals in the patient throughout the surgery. This, I assume is the same between Japan and the U.S. What I found to be different were the rules on sterility. The surgeons maintained a sterile field around the patient during the surgery, but multiple people came and left the room during the procedure, something I was not expecting. Additionally, everyone, including the surgeons, wore

what they call “inside shoes,” which are like croc-type shoes. They even had Scott and me switch out of our tennis shoes!

In a lecture and discussion on diabetes, I learned that diabetes is actually quite a concern in Japan, but it’s not associated with obesity, like here in the U.S. Japanese pancreatic function is lower than that of an American, so Japanese patients produce less insulin. That means they have a lower tolerance or threshold, which is why they are less likely to be obese, but may still have diabetes. Sadly, obesity is increasing, particularly in the disaster area affected by the nuclear power plant meltdown. Many of the children are spending more time inside than they were before, so physicians are seeing higher levels of obesity.

During the second week, much of our time was spent in the disaster areas, working and learning from the physicians there. It was very sad to see that there is still a lot of devastation and hopelessness. We asked about the prevalence of psychological issues and the answers we got were not what I expected. It seems that there are a lot of psychological issues that have surfaced, but women, as opposed to men, are being seen most frequently for treatment. So, it appears, based solely on numbers, that the psychological issues have not increased as a result of the tsunami, but the physicians know better. In the Japanese culture, there is a large stigma against going to see psychiatrists, so men, though they may need treatment, refuse to seek out help. In a lot of cases, the physicians are there to listen as people share their stories, in hopes that they can move past the tragedy of last year. Much of the younger population moved to other areas after the tsunami and nuclear meltdown, so most of the population is elderly. The physicians are dealing with a lot of dementia and mobility problems. There is one city where 50% of the population is 50 years or older...that’s a tremendous amount of elderly patients. What’s even more interesting is that many of the doctors that are now living and working in these areas are specialized in other areas, for example, neurosurgery, cardiology, and hematology. However, they recognized a need and moved to these areas to meet those needs.

Our third and final week was spent learning about Japanese medical education. We visited multiple medical schools and residency programs and

interacted with many Japanese medical students and residents. The structure in Japan is very different than in the U.S. Students enter a 6-year medical program straight out of high school. The first 2 years are comparable to an American undergraduate education. Years 3-6 are similar to the medical education we receive here at Brody. After medical school, Japanese students do a general residency program before deciding which specialty they'd like to enter. Because Japan has free general health care for all of its citizens, physicians are paid fairly equally, no matter the specialty, a system much different than in the Western world, particularly the U.S.

In a discussion with first year medical students taking an English speaking class, we learned about the differences in informed consent between Japan and the U.S. Since Japanese culture is very community-based, as opposed to the individualistic society of the U.S, patients often allow and in some cases prefer physicians to share news with their families, without any violation of patients' rights. In some of these instances, physicians share news with families instead of sharing with the patients, particularly for fatal diseases like cancer. This way, patients' hopes protected. In Japanese culture, informed consent takes into consideration more than just the physical aspects of a patient, but also the emotional aspects.

This summer was a once in a lifetime experience- I was able to learn about the medical system of a society much different than in America, interviewing patients and physicians about their experience with the tsunami and how that's impacted their lives within the last year. Comparing Eastern and Western medicine, I was able to see that there are a lot of differences between Japan and the U.S, but I was also able to see the influence Western culture has on Japanese medicine. I sat and listened to patient stories, as they recounted the events of March 2011 and how that was the day that dramatically changed their life- some lost family and friends, many had to leave homes where they'd spent their entire lives, and most have no idea what the future holds for them. Thank-you Brody Foundation for this opportunity. It truly opened my eyes to aspects of medicine I hadn't before seen.

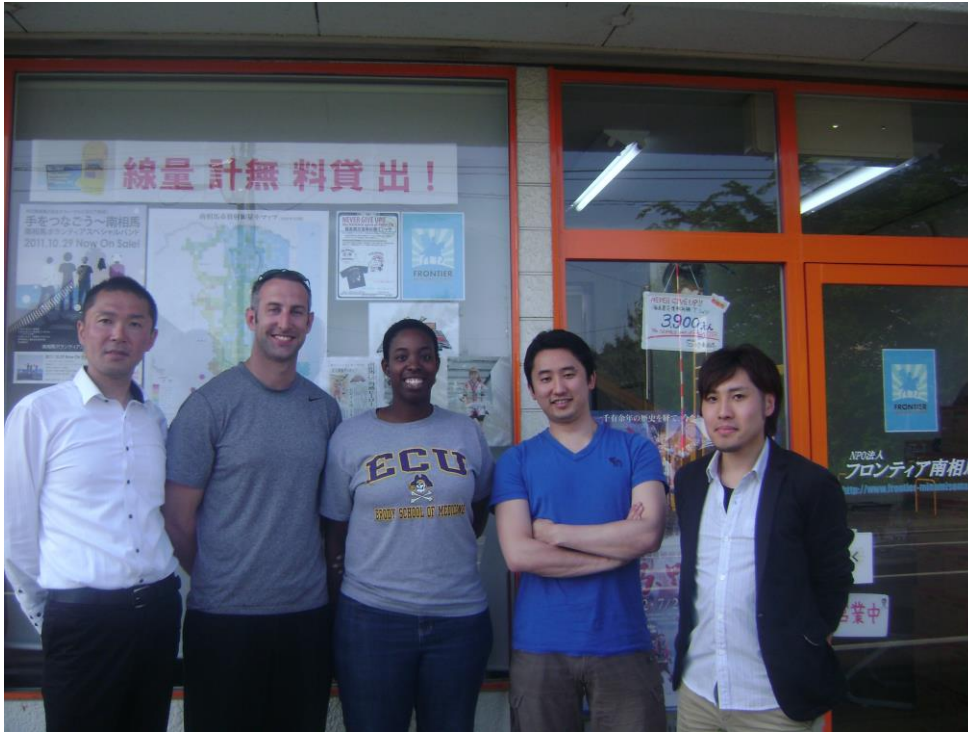
Gratefully,



**Picture 1:** Scott and I had the opportunity to make an herbal medicine used for the common cold. In this picture, you see me adding one of the ingredients to the mix. After making the medicine, we brewed it like tea and drank it. The taste was mild, but very similar to tea.



**Picture 2:** Scott, Tadaho and me after a long day in the OR. Tadaho is an anesthesiologist and taught us a lot about the basics of the specialty. Including Tadaho's preparation time, we were in surgery from 8am until 4:30pm...long day!



**Picture 3:** This picture is after a meeting with leaders of 2 different non-profit organizations started after the tsunami. One was the leader of a clean-up group for the city of Odaka and the other was leader of a group whose goal it was to help the children affected. In this particular area, they also have radiation problems, so many of the children are kept inside for their safety. This group takes the children on field trips around Japan, so they can spend time outside. They also work with them on getting past the fears that have arisen as a result of last year tragedy.



**Picture 4:** This is a picture of a school after the disaster. You can see the chalkboards in the different classrooms. There were 108 teachers and students, but 74 died. One of the teachers that survived committed suicide-I can't imagine how s/he felt being one of the few survivors.



**Picture 5:** This is also from the disaster area. There were miles and miles of damaged cars stacked one on top of the other. Sadly, it was placed in sight of some of the temporary housing because there's a lack of space to put all the left over trash and debris. Also, the government isn't making any decisions about discarding the cars because they don't want to get rid of other people's property without permission. The thing is, many of the owners may be dead and those that aren't can't use the cars and probably can't distinguish which one is theirs anyway.



**Picture 6:** This is a picture of me playing a game similar to golf at one of the refugee camps. Each of the camps has morning meetings where they do exercise, have classes on community health, or play games. At this particular site, they insisted Scott and I join...they got a lot of laughs out of watching the two of us!



**Pictures 7 & 8:** This is the morning meeting at a different refugee camp. This particular morning, the residents were learning CPR. There wasn't a resident younger than 50 years old in the room. I was blown away because CPR is very hard and takes a lot out of the person performing it. These people worked really hard!





**Picture 9:** This is a picture of us with the Karakoro Station staff. Karakoro Station is a non-profit organization specializing in meeting psychological needs of patients in the Miyagi prefecture (which is like a state).