Summer Experience One-page Summary
August 16, 2012

This summer, I participated in the Traditional Chinese Medicine exchange program with Zhejiang University School of Medicine at the Second Affiliated Hospital in Hangzhou. As I got to explore and observe Traditional Chinese Medicine (TCM) in the mornings, I also rotated in the inpatient cardiology and general surgery departments in the afternoons. This summer experience really allowed me to glimpse the role TCM played in the Chinese medical field as well as see how health care in China differed from that in the States. There I saw how TCM is integrated with the other departments in more than one instance. For example, if a patient had first gone to TCM before other outpatient departments, the TCM physician may encourage them to see a cardiologist or neurologist to eliminate any possibilities of an acute illness or disease before coming back to consider a treatment plan. They must also be careful not to prescribe any concoction that may be contraindicated with any of the present medication that the patient would be taking then. From talking with several TCM physicians, they brought up many interesting points that support TCM as a field of medicine, such as it being a field that is built on thousands of years of experience. Also, the practice of traditional Chinese medicine is so individualized, from their background and environment to their genetics, that to study the efficacy of it using statistical analysis would be close to impossible. On the other hand, acupuncture, which is a field within TCM, has been the subject of many studies. Today, the needles in acupuncture are combined with electrical stimulation (an idea from western medicine) to provide treatment to a patient. Many patients come for relief from chronic pain, lasting-effects of a stroke event, and many young women for menstrual problems. And while this summer experience allowed me only to scratch the surface of a wide field of education in Traditional Chinese Medicine, it yielded many valuable lessons to be considered. For example, why do patients continue to come back? While the long history of TCM in Chinese culture may play an important role, there are still thousands of years of experience to support it. Being able to see the inpatient ward for TCM was also important in terms of getting to know a wider and more diverse patient population.

The rotations through cardiology and general surgery were also very valuable because I got to observe how the inpatient wards were run in the hospital as well as go on rounds with the other medical students and residents. There, by talking with other medical students, I learned more about the Chinese system of education for a career in medicine and how it compares with ours. Overall, the summer experience in certain aspects had exceeded my expectations and goals. I only ask that perhaps the learning experience could be more structured so that the cardiology rotation would be in the outpatient instead of the inpatient departments. The experience in general surgery was especially significant because the attending spoke both English and Mandarin so that I was able to understand more of what was going on as well as learn more medical Chinese.

I would definitely recommend this program to other medical students and PLME because I got to experience and learn a great deal about not only Chinese medicine but also the Chinese culture. Living there and being immersed in the culture really strengthened my own Chinese heritage and roots as well as improved my language and communication skills. It not only provided an opportunity to talk with Chinese students and physicians about what they think about the current healthcare system in China but also allowed me to share what I know about health care and the education system in the United States. Perhaps in the future, students could rotate through even more departments to gain an even wider sense of TCM and medicine in a major hospital in China.
Program in Traditional Chinese Medicine at Zhejiang University School of Medicine

Summer 2012

I began to research the Traditional Chinese Medicine program offered at the Zhejiang University School of Medicine around the time that I was taking a History of Medicine course offered at Brown University. The class covered the fundamentals of traditional Chinese medical history. Being a Chinese immigrant (I was born in Beijing and moved to New York in the winter of 1994), I had always had some exposure to alternative medicine in the household – i.e. preparing food according to the balance of hot and cold in the body, or the usage of herbal medicine to treat a cold. However, learning about Chinese medicine from an academic standpoint re-ignited my fascination in an ancient system that is also beginning to influence Western medical tradition.

Unfortunately, the class at Brown was only one semester long and focused on history. The program though ZUSM offered to give students a basic exposure to contemporary and practical Chinese medicine as it is used in conjunction with Western medicine. Though we shadowed at the TCM-specific clinics for half a day, the combination of Chinese medicine in use with Western treatment was the most palpable in the neurology wards. For example, stroke patients commonly utilize acupuncture in conjunction with physical therapy in order to maximize recovery potential. Within this hospital, both doctors trained in Western medicine and TCM doctors were able to work together to find holistic treatments best for some patients.

We learned about the basics of TCM theory, particularly on the functions and characteristics of herbal medicine and on acupuncture. Understanding the basics of traditional Chinese medicine requires a different type of thought than the rigidity of Western medicine. TCM is based on holistic medical theory, the balance of yin and yang, the flow of qi through the meridians, the concept of “feeling pulse”. Balance and moderation is key. Once we were taught the basics, we then proceeded to learning practical medical treatments such as the utilization of various herbs and acupuncture. While we were in the acupuncture wards located away from the Second Affiliated Hospital, we were even given an opportunity to locate and insert a needle into the “Zhu San Li” acupuncture point of a patient. I personally volunteered to have “cupping” performed on my own back in order to experience this particular type of treatment. Through both experience and lectures, the program offered a good exposure to the tenets of an alternative medical practice. This is undeniably critical in becoming a more holistic doctor.

Each student must make the most out of their experience. I personally found that purchasing a Chinese medical dictionary and an acupuncture point map was particularly helpful. And because of the flexibility of our program, we were also exposed to the difference in the operation of a hospital in another country. I would definitely recommend this to any student with a background in the Chinese language interested in developing a practical understanding of the basics of TCM.
Summer at Zhejiang

The four-week exchange program to the second affiliated hospital of Zhejiang University primarily focused on learning concepts in traditional Chinese medicine. I had a brief introduction to TCM from taking Dr. Robert Heffron’s preclinical elective course on alternative medicine at Brown University, so I hoped I could gain a more comprehensive understanding of the topic in Hangzhou. For the most part, I was able to meet my goals through the program.

I studied TCM on the fifth floor of the outpatient building. It was better to study with the TCM physicians during the afternoons since they treated fewer patients and were more available to explain. Although a few physicians were reticent, some were more open to discussion and were better able to explain the more abstract concepts of TCM. I spent the most time studying with Haifeng Gao, a doctor who specializes in acupuncture. Also, Guoping Zhang provided us with a few lectures on the background and history that shaped the development of traditional Chinese medicine. One problem with my experience in the TCM department was that some physicians did not explain concepts to us because they believed they were too difficult for us to understand. While achieving a masterful grasp on TCM concepts is unlikely, I was able to at least learn something from those who were willing to explain. I believe it would have been more beneficial if some physicians had attempted to explain before jumping to conclusions about our level of understanding.

However, I did learn a substantial amount about TCM from the physicians who were willing to teach. One of the physicians there also suggested that I read Basic Theory of Traditional Chinese Medicine, a Chinese-English book. I first learned that concepts of Western medicine and the modern biomedical sciences are not relevant to TCM since TCM originated thousands of years ago. I explored the concept of qi, the form of energy that composes all life. The flow of qi in nature results in two opposites, yin and yang, that are usually in balance. The flow of qi and the balance between yin and yang is also reflected in the human body. If the flow of qi is blocked or the balance between yin and yang is disrupted, then disease results.

Instead of targeting pathological agents, treatments in TCM usually focus on reestablishing a healthy balance between yin and yang or promoting qi flow. This treatment method is called “syndrome differentiation.” For instance, the common cold can be split into two types: one type is caused by “hot wind” and the other is caused by “cold wind.” Since heat is primarily associated with yang, colds caused by hot wind should be treated with herbs that possess a cool character. Coolness is generally associated with yin, so increasing the level of yin in the body can offset the overabundance of yang. In contrast, treating a cold caused by cold wind requires herbs with hot properties. Treating headaches is a more complex case of syndrome differentiation. The following table details the five possible types of headaches and treatment methods for each type.
Summer at Zhejiang

discussed was the preparation of herbs. Preparing an herb in the presence of another herb or substance can change the coolness or warmth of that particular herb. For instance, treating 半夏 (bànxià, or crow-dipper) with ginger creates a warm herb. In addition, processing an herb before use can eliminate the natural toxicity of a plant; this is also the case with 半夏. The following table on the next two pages summarizes his descriptions of some of the herbs he discussed.
<table>
<thead>
<tr>
<th>Herb</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>旋覆花 (Inula flower, <em>Flos inulae</em>)</td>
<td>Acrid and salty taste, warming, antiemetic, removes excess phlegm, regulates the flow of qi</td>
</tr>
<tr>
<td>大枣 (Jujube, <em>Zizyphus jujuba</em>)</td>
<td>Sweet taste, warming, increases qi in the stomach and spleen, replenishes blood</td>
</tr>
<tr>
<td>麦芽 (Germinated barley, <em>Fructus Hordei Germinatus</em>)</td>
<td>Sweet taste, neutral, relieves food stagnation, increases appetite</td>
</tr>
<tr>
<td>稻芽 (Germinated rice, <em>Fructus Oryzae Germinatus</em>)</td>
<td>Sweet taste, neutral, relieves food stagnation</td>
</tr>
<tr>
<td>小米 (Foxtail millet, <em>Setaria italica</em>)</td>
<td>Sweet and salty taste, cooling, relieves food stagnation</td>
</tr>
<tr>
<td>附子 (Aconite, <em>Radix Aconiti Lateralis Praeparata</em>)</td>
<td>Acrid taste, warming, increases yang in the heart and kidneys</td>
</tr>
<tr>
<td>百合 (Lily bulbs, <em>Lilium brownie var. viridulm</em>)</td>
<td>Sweet and bitter taste, cooling, adds moisture to the lungs, treats cough, calming</td>
</tr>
<tr>
<td>葛根 (Kudzu vine root, <em>Radix Puerariae</em>)</td>
<td>Sweet taste, cooling, relaxes muscles by removing toxins, removes excess heat, replenishes body fluid</td>
</tr>
<tr>
<td>天花粉 (Trichosanthes root, <em>Radix Trichosanthes</em>)</td>
<td>Sweet and bitter taste, treats swelling, removes excess heat, replenishes body fluid</td>
</tr>
<tr>
<td>山药 (Chinese yam, <em>Dioscorea opposita</em>)</td>
<td>Sweet taste, cooling, increases yin in the body</td>
</tr>
<tr>
<td>北细辛 (Chinese wild ginger, <em>Asarum</em>)</td>
<td>Acrid taste, warming, anesthetic, facilitates the flow of qi, removes excess coolness</td>
</tr>
</tbody>
</table>

**Table 2. Some of the herbs in TCM treatments**  
Summarized from Dr. Jiang’s lectures

In addition to gaining exposure to traditional Chinese medicine, we also learned a bit about Western medicine. Sometimes, I shadowed physicians in the cardiology and neurology departments. In cardiology, my mentors were Dr. Xianbao Liu and Dr. Qian Xu. Unfortunately, Dr. Xu did not speak a lot of English and Dr. Liu was often busy elsewhere in the hospital. In addition, my medical Chinese vocabulary is not that comprehensive, so it was difficult to completely understand each patient’s condition. However, I learned that most patients were myocardial infarction victims and I did observe a percutaneous coronary intervention.

In neurology, my mentors were an attending physician, Dr. Jiong Zhou, and a resident, Dr. Jin Cao. During rounds, Dr. Zhou would discuss each patient with the residents and medical students while Dr. Cao would explain some of the medical terminology to me in English. I encountered patients who presented with various diseases and conditions. I became familiar with Creutzfeld-Jakob disease, neuromyelitis optica (NMO), pseudobulbar palsy, limbic encephalitis, and benign positional paroxysmal vertigo (BPPV). I also witnessed several lumbar puncture procedures.
Zhejiang Experience

I thoroughly enjoyed my trip to Hangzhou, China and the experience that I was able to have at the Zhejiang University School of Medicine. As my first trip to Asia, I really appreciated the hospitality and welcoming nature of all the people that I encountered throughout China, and especially in the Second Affiliated Hospital of the Zhejiang University School of Medicine.

I was able to learn about acupuncture, cupping and herbal medicine. I learned that acupuncture can be used for patients who have back pain, hip pain, knee pain, paralysis and stroke, to name a few. The acupuncturist, Dr. Gao, at Zhejiang University School of Medicine was a great teacher and he explained to me the chi channels and the methodology behind where and how to properly and effectively insert the acupuncture needle into a patient. I learned about different chi points on the body and how to locate them on myself and others. There are over 361 chi points in the body, and each point varies from person to person, making acupuncture a very precise and detailed practice. Every chi channel is connected to an organ, either the kidney, the heart, the lung, the liver or the spleen. There is a point between the thumb and index finger that if pressed correctly is used as a headache reliever. There is also a point three fingers length below the knee that can relieve joint pain when pressed. Dr. Gao also taught me the proper way to hold and insert the acupuncture needle into the skin. I learned that one should hold the needle between the index finger and thumb, while also supporting the needle with the middle finger as you press it straight down into the patient’s skin. After the acupuncture needles have been placed in the patient’s skin an electrically charged wire is tied around the needles to stimulate the muscles and help to better alleviate the pain of the patient.

Many patients also received cupping as a treatment. Cupping is when fire is wiped through a wooden cup (though it can also be glass) and then the cup is suctioned onto the patient’s back, breaking the capillaries and “pulling the poison in the body out.” It is a very popular procedure and I even saw the dark circles it creates on the skin on many people out in the city of Hangzhou. I noticed that cupping was primarily used on patients with back pain, but it can be used to help other types of pain. Along with acupuncture and cupping, herbal medicine was a huge component of Traditional Chinese Medicine. In the acupuncture department the acupuncturist used a conglomeration of ground up herbs mixed with ginger water and rolled the herbs into a small ball that was then placed on patient’s backs and covered by a mentholated bandage. The bandage is kept on for 4-6 hours and the herbs, which have a little bit of toxic herbs in them, create blisters that are later lacerated. This herbal medicine procedure was mainly used on patients who have allergies or bronchitis.

To further help us understand herbal medicine we had a lecture and hands on experience in the herbal pharmacy in the hospital. The herbal pharmacist explained to us the procedures used to collect certain herbs, the time of year that particular herbs are collected, the illnesses the herbs are used for and the way in which the herbs must be prepared. The most common way of preparation is to boil the herbs together and drink them as a type of soup. In the herbal pharmacy we saw many different types of herbs that are used for a variety of remedies, from cicadas, scorpions and centipedes to mint leaves, dried pieces of bark and goji berries. We tasted a few different herbs, one root was a numbing agent that numbs your tongue and it helps if a patient has a toothache. I enjoyed going to the pharmacy and learning first hand how different herbs can have such profound effects on sick or hurting patients. Many of these herbs are found in mountainous regions of China and it is so interesting how much of Traditional Chinese Medicine is intertwined into the culture,
beliefs and history of China.

Outside of the Traditional Chinese Medicine department, I was able to go to the Cardiology and Neurology departments. I enjoyed both so much. In the cardiology department I spent a lot of time in the Critical Care Unit and I learned about the conditions of each patient. We saw EKGs done and we learned how to read an EKG and how to apply all of the electrodes onto the patients. I was also able to go into a heart catheterization lab and see a stint put into a patient’s heart. I also enjoyed shadowing in the neurology department. I spent most of my time in the epilepsy area and I learned more about epilepsy and how to detect if someone is having a seizure based on their behavior. I learned how to read an EEG and how to identify the particular section of the brain being affected by certain spikes on the EEG. I was also able to see a brain surgery, which was a wonderful experience. The patient had a tumor removal in the left frontal area of the brain. I enjoyed learning about the non-Western Traditional Chinese Medicine and I enjoyed learning more about the more Westernized practice in the Cardiology and Neurology departments of Zhejiang University School of Medicine.

I also learned a lot about yin and yang. I did not realize the extent to the significant role that it plays in Chinese culture. I learned about the balance of yin and yang, not only in the environment and lives of people, but also within the body. If someone’s yin is low then the yang must be raised or the yin must be raised. Yin and yang correspond to front and back, up and down and in and out. In Traditional Chinese Medicine it is believed that balance in the body is essential to healthiness. Yin and yang is a very important aspect to understanding Traditional Chinese Medicine. For example, many of the patients I saw being treated for sicknesses or allergies this summer are not affected until the winter, but with yin and yang, the balance can best be treated for a cold disease during the hot season of summer. To fully grasp the healing nature that Traditional Chinese Medicine can have on people, you have to understand the belief system behind the practice and it is very logical and clever that many of the remedies have been passed down for centuries from things that ancestors have discovered and realized are still prevalent and still used today. I learned more about this when I visited the Traditional Chinese Medicine Museum. It was great to see the herbs and the journals and books behind the formation of this medical practice, that so many find to be more effective than Western Medicine.

I loved learning about Traditional Chinese Medicine and I learned so much about Chinese culture within and outside of just the medical realm. I was also able to see the years of training and experience that are needed to effectively treat patients with acupuncture, cupping and herbal medicines. I thoroughly enjoyed studying and staying in Hangzhou. Hangzhou is a beautiful city, and with more than 8 million people it is a huge, booming area. West Lake was picturesque a great, relaxing place to walk around and enjoy the views of the pagodas, the mountains and the dragon boats. The food in Hangzhou is delightful. I am a big fan of boba tea, green tea cakes, any type of tofu, xiaolongbao, sesame balls, red beans and Longjing tea, just to name a few of my favorite things. I had an absolutely marvelous time in Hangzhou, China and I would like to thank you for the opportunity to study Traditional Chinese Medicine and the opportunity to broaden my prospective on a limited and very interesting field of medicine that is not as easily accessible in the United States. I feel as though I learned a lot about Traditional Chinese Medicine, as well as the Chinese culture and I have a great respect for both.