

## Report on the study in Wuhan



Fukushima Medical University

Yoshida Jun

In this report I write about the studies and experiences I had in Wuhan as one of the exchange students from Fukushima Medical University, and also about what it meant to me. I arrived in Wuhan on April 9th and left on May 18th, 2018. I have to admit that because I am only a 4<sup>th</sup> year student, I do not have the most clinical knowledge. But even with this lack of knowledge and experience, I believe this study abroad opportunity was quite fruitful. In fact, there are plenty of things I have learned from Wuhan *because* I am still an undergraduate student.

Wuhan University and Fukushima Medical University have tried to strengthen their relationship since 1996. Every year since 2009 Fukushima Medical University has sent some exchange students, with the aim to strengthen the partnership and cooperation between the universities. I was aware of the duties and responsibilities we had to strengthen the bond between these two. I also had a desire to visit a nation whose official language is not English, and to study there to widen the world I live in.

Wuhan is the central city of Hubei district. It has had both commercial and political importance in this area and it is still growing rapidly. Wuhan University is one of the most prestigious universities in China; few students pass the entrance examinations. Only approximately five percent of applicants succeed. The university is divided into two parts: Main campus and medical campus. We stayed at the latter.

I joined in the pathology department. The pathology center at Wuhan University plays a role in clinical practice, while it also deals with some basic medical research. Clinical practice and basic research are done on the same floor, because the building only has one floor. Several pairs of glasses are on the microscope in the conference room, which they use to share the same cases during discussions. They often have controversial problems

on how they interpret some specimens from a patient.



They have a conference every morning at 08:00. Workers do presentations one by one, and sometimes they have professors from other departments present. We learned a lot from them, and here are some contents: microscopic colitis, normal structure of placenta and of what you have to be aware of to make a specimen from placenta, hepatocytoma, and molecular-biological approaches toward various carcinoma. The chief professor at the pathology department was in Chicago when we arrived at Wuhan, but he returned a week later. A researcher from Chicago also came to Wuhan and gave a lecture on hematopathology. He showed us some pictures from the patient after a little explanation on his or her past history and main clinical problems, and the pathologists discussed why the patient showed the symptoms, about the best remedy we could provide him or her. They used both English and Chinese at the same time, which showed us how excited they were during the lecture. I could barely understand what they were talking about and was just trying to understand the diagnosis and treatments they agreed on. Sometimes they were urged to talk about a controversial case they had to deal with.

Of the Chinese students in the pathology classes, most were 3<sup>rd</sup> years. They were very keen on studying. They did not hesitate answering the questions the teacher gave them. Some students who aim to be basic researchers attended special classes. After lectures, students are required to observe some specimens and sketch them.



We attended at an experimental physiological class. This class was for foreign students, and students were expected to write a report after each experiment. We observed the changes in blood pressure and pulse rate triggered by Norepinephrine, and Acetylcholine injection. Stimulation on the right vagus nerve on a rabbit also affected the rabbit, and we observed and recorded it. the students spoke English well, and most of them were from India. Some were Thai. We joined some pathology classes for foreign students. Most of them were



taught by Professor Xue. Professor Xue had various ways to keep the students concentrated on the lecture, such as asking about important structures on an image or having students read from the textbook; and she was always trying to improve the lecture. She also had a good relationship with her students—some of them keep their photographs with her even several years after her classes.

We went to two hospitals; Zhonnan Hospital and Renmin Hospital. Zhonnan is the second clinical hospital Wuhan university has, and the first one is Renmin. Renmin is much bigger than Zhonnan, with forty-four billion patients annually. Below are the departments we looked around: hematology, respiratory health, gastrointestinal health, neurosurgery, gynecology, the emergency department in Zhonnan, and psychiatry and cardiovascular in Renmin.

## **Zhonnan hospital**

### **1. Hematology**

They have a meeting at 08:00 every morning. Doctors, nurses, and student-doctors gather in the meeting room, listen to the reports on the states of the patients in the hospital and discuss the treatments for the patients they have. Discussion lasts for about one hour. After this meeting the doctors check the patients. There were various patients with various diseases; follicular lymphoma which just had turned into ALL, CLL, AML, DLBCL, acute leukemia from MDS, T-cell lymphoma, MM, anaplastic anemia, and ITP. Relatives of some of the patients stayed in the hospital with them. Doctors often have several options for treatments: molecular-targeted therapy, chemical therapy, and radiation therapy. They have to consider both the medical and financial states of the patients to make a decision. Doctors offer the relatives several treatments, and they talk about what is the best for the patients.

### **2. Respiratory system**

We learned about examining patients' bodies to detect pleural effusion. We also looked at the apparatus for bronchoscopy, and CT images of a young patient with bronchi ectasia. We examined the ICU. The relatives of the patient are allowed to go into the ICU and take care of them, and sometimes doctors ask the relatives to persuade patients to be obedient. Some patients with COPD or pneumonia in the ICU are old, and reluctant to cooperate with the medical care doctors offer them.

### **3. Gastrointestinal system**

Approximately one hundred and fifty patients come to the hospital as outpatients, and inflammatory bowel diseases are the most common among them.

### **4. Neurosurgery**



The neurosurgical department also has meetings at 08:00 every morning. When we visited, they had a presentation about a metanalysis on treatments for Moya Moya disease, and a report on the status of the patients in the hospital in both English and Chinese. Four-tenths of them were in

English. After the conference, they checked the patients in the hospital. Each patient had less than twenty seconds to talk with their doctor. Many of the patients in the hospital have MMD (Moya Moya disease). We spent another day here to learn about the inpatients. They had metastasized tumors, cerebrovascular aneurysms, glioma, cerebellar hemorrhages, and so on. Professor Xion, who took care of us, had just a piece of chaozi and went into the operation room after checking the inpatients. The operation we observed was a removal of meningioma next to the cavernous sinus of a sixty-year-old male. He already had an operation to remove his meningioma, but the remaining tumor grew again. The doctors discussed three options for his craniotomy, and after they performed one of them, the chief professor removed the meningioma, and again professor Xion performed cranioplasty. He left a drainage tube to prevent subcutaneous hematoma then went to the family of the patient, who spent all that day waiting in the hospital, and showed them the meningioma he had just removed. After explaining the state of the patient to his family and comforting them, he sent the meningioma to the pathology center. The operation ended in the evening, but sometimes doctors have to work during the night. The emergency medical department often calls a neurosurgeon for urgent treatments at night, so they sometimes have to come to the hospital in the middle of the nights. They make some teams of neurosurgeons, nurses, and anesthesiologists. They sometimes joke during their work, and they have good relationships with each other. They talked to us, asked about Ishihara Satomi, a famous Japanese actress, which let us feel more comfortable. Not only the doctors but also the nurses seemed quite busy. They sometimes have to work without a rest for the whole day.

#### 5. Gynecology

We saw plenty of patients with cervical cancer. Most of the patients were with the members of their families. We also saw patients with adenomyoma, uterus cancer, infertile treatment, PID, and some cases with DVT. Even outside the hospital rooms, we saw some patients in beds. We also examined a hysterosalpingectomy with lymphadenectomy on a patient with cervical cancer stage1b. The doctor seemed confident in her skillful hands.

#### 6. Emergency medicine

The emergency department has a strong relationship with Marie-Curie University in France, and they have signboards in both Chinese and French. Professor Luo GuanGuan, who took care of us, has also been to Paris for three years to study. They have an apparatus for blood tests that takes twenty minutes or less to produce results. They treat approximately one hundred patients during the daytime, and forty at night.

We saw several patients and treatments; a high-aged women with COPD and hyperglycemia who had a sudden thoracic ache at 06:30, a patient with spinal injury from a traffic accident, one who had pain around her central abdomen, which a few hours later moved to the right inferior part of her abdomen, and another who was dizzy and showed us a horizontal nystagmus. We also saw a treatment for a nineteen-year-old male who had suffered an injury on his right hand. He had his right hand cut by a piece of glass. There was only one nurse in the two operating rooms, which made her extremely busy.

## **Renmin hospital**

### **7. Psychiatry**

The psychiatry department divided their building into two parts: an open section and a closed section. At the open section there are patients with comparatively light symptoms. They have a meeting at 08:00 every morning. The doctors told us about a patient with an unstable state of sleeping, one with multi-sited pain, and another with bipolar disorder with megalomania. The closed section had patients with comparatively severe symptoms: they had bipolar disorder and schizophrenia. Because patients with schizophrenia show higher rate of committing suicide, there were various ways to prevent them from killing themselves. For instance they cannot wear shoes with laces. It is also an important duty for the doctors to persuade the families of these patients to have them in the hospital.

### **8. Cardiovascular system**

We looked inside the laboratory and the clinical hospital. They perform some experiments on animals with cardiovascular diseases. We saw some apparatus for molecular biology. In the clinical building the doctor explained about a patient with LAD stenosis who recently had PCI.

We could pay bills with cash, but in many cases, people use online services such as Allipay or Wechatpay. These services enabled us to pay through QR codes, mobile phones, and our own fingerprints.

The first classes began at 08:00, and each class lasted for forty-five minutes. From 12:15 to 14:00 we had a lunchbreak, and we often took a nap in this time. We did not have classes on Saturday and Sunday, but some of the students attended extra classes, for example, Japanese class. We sometimes had to hurry to get to our next classes. The library was crowded with many students. They study there, write their own reports, and look for articles. They use online applications to book their seats in the library. They are allowed to use vacant rooms to study. They spend approximately two or three hours studying every

day. They have a lot of assignments, and before examinations they study five or six hours or more in a day.

Before entering in the university, they decide the department they will belong to. To work in prestigious hospitals which gather plenty of cases, they have to have an MD-PhD. This is why a lot of students work hard. Foreign study is needed to become a professor and the students are quite aware of this, which is another reason why they study with enthusiasm.

Starting in high school, they leave their parents and live in a dormitory the school offers. Most of the schools forbid them to have a girlfriend or boyfriend, to reserve time to study; but after graduating from college they are urged to get married. It is considered to be better for women to marry when they are young, but men are supposed to purchase their own houses before asking a woman to marry him. "Then we have no time left," complained a male student we met.

We had a pleasant time with our friends. Quite many people were good to us: Mint, her roommate Stephanie, Ekansh, Zara, Damir, Myat, Zhen, Gao, Chen, and so on. Almost every day we had someone to have a dinner with, and we did many other activities: archery, enjoying a cruise on Yangtze river, ceramic work, Karaoke, Origami, and going to an amusement park.



We attended East Lake International Forum for neurosurgery 2018 on April 21<sup>st</sup>. It had a lot of participants from all around China, and we listened to lectures by Professor Timo Krings and Miki Fujimura. They talked about how inflammatory reaction influences an aneurysm on IC, and they presented an intervention study on patients with Moya Moya disease with MCA-STA bypass. Participants could also practice microscopic surgery at the forum.

This stay in China has increased my familiarity with the country. It also made it much easier to study abroad, and I believe it will be much more easier in the future, because I will have a concrete purpose I would like to focus on. I now know that knowledge gives me power. Continuous study changes our futures. The diligence Chinese students have shown us has influenced me a lot.

I really hope that the relationships this stay has helped me build will give us further opportunities to study in some coming years.

Thanks to a lot of people, we were able to stay and study in Wuhan. I would like to thank: Zhang Xue and Gong yang at the pathology department who took care of us; Professor Chen and Professor Xue for their pathology class; Dr. Chen Fei, Dr.Xion,



Dr.Luo and other doctors who let us look around the hospital; students who took care of us and had a pleasant time with us; and Dr. Kenneth Nollet, Professor Eiji Sekine, Professor Satoshi Waguri, and especially Ms. Kokubun at FMU.

Finally, I would like to thank Mr. Jonathon Baron for giving me great advice on my English.