

(Abroad • Domestic) Internship report form (Student)

2017/01/30 (Year/Month/Day)

Name	Yinghua YANG
Laboratory	Theriogenology
Year (Grade)	3
Internship institution	IVF Namba Clinic
Internship period	Internship period: 01/16/2017 - 01/20/2017 (Departure Date from Sapporo: 01/15/2017, Arrival Date in Sapporo: 01/20/2017)
Purpose	To experience working environment as an embryologist To get job information as an embryologist

- The reason why you chose this institute

My current research involves in vitro oocyte culture that is closely similar to routine works of embryologist in a human infertility clinic. Infertility treatment is a fast-developing and challenging area and embryologist plays important roles in it. Therefore, embryologist is a possible career choice for me. I told this idea to my PI and then I was recommended to this clinic because one of graduate from our lab has been working there for many years.

- Result of the activity

I leaved for Osaka on Jan 15, 2017 (Sunday) in the morning. After several minutes walk from Namba Station, I could see the building at which IVF Namba clinic located. Osaka is famous for super-large advertising board. The same for this clinic, its advertising board is just set on the top of the building, making it very easy to be found. The clinic is 100 meter north to the beautiful Dotonbori River (Fig. 1). After locating the clinic, I went to my accommodation. The house is only 500 meter away from the clinic, but on another side of the river.

Next day in the morning, I visited the clinic. It is a large, quite and elegant clinic (Fig. 2). I met the host, Mr. Kiyono, a former member of my laboratory. He introduced me another host, Dr. Hashimoto, the leader of Research Center. Following some greeting, I was asked to sign a document for not spreading patients' information acquired during the internship. After then my internship got started.



Figure 1. IVF Namba Clinic (arrow)
near Dotonbori River



Figure 2. Entrance lobby



Figure 3. Counselling room

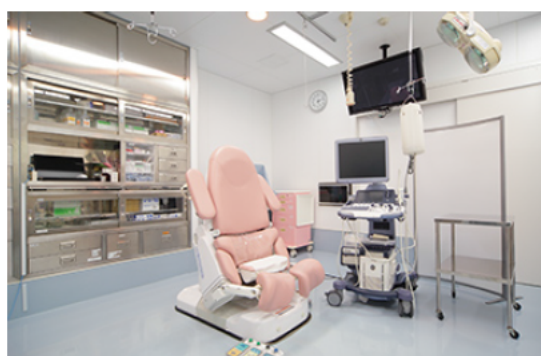


Figure 4. Operation room



Figure 5. IVF lab



Figure 6. Mr. Kiyono (L1), Dr. Hashimoto
(R2) and Dr. Satou (R1)

My first stop genetic counselling observation (Fig. 3). A couple has lost their baby after 8 weeks pregnancy due to abortion after treatment with assisted reproductive technologies. The reason for that was abnormal chromosome in the fetus after examination. However, they did not understand why this happened, what should they do and what this means to next treatment. Therefore, genetic counsellor could help to answer such kind of questions. Actually, it is a common service provided in many infertility clinic across Japan. The counselling lasted for 1 hour. Certificated counselor explained what chromosome is, why it could mistake. The couple were

encouraged to try another treatment because this abnormality in chromosome do not necessary mean abnormality in next time. The couple were satisfied with the explanations, and then they were turned to the Dr. Nakaoka, the CEO of the clinic. Dr Nakaoka asked about their willingness to receive next treatment. The couple expressed their worries about the uncertainty of next treatment, and the huge cost for treatment. They will make next appointment when the couple get their mind made. Afternoon, I attended a physical exercise called fertile stretch. The clinic developed many supportive therapies in addition to routine medical treatments. This exercise is based on the theory that exercise is good to reduce stress and enhance blood supply to ovary and uterus. It lasted 2 hours. It did work to me. I had a feeling of refreshing after doing it. In the evening, the hosts hold a small welcome party for me. It was a pleasant party. We had a lot talks and I got some job information for becoming an embryologist. I attended a psychological lesson for autogenic training in another half day. This lesson aimed to teach patient how to relax himself or herself in a short time.

In the second day, I was took to the operation room to observe how to collect oocytes after permission from the patients. It was my first time to be in a human operation room (Fig. 4). The doctor used an ultrasound guided trans-vaginal needle to aspirate follicular fluid in the ovary. The perfect cooperation between doctor and embryologists was very impressive. I observed two cases; each case lasted about for 20 minutes. Then I went to where tube baby was made, in vitro fertilization (IVF) lab (Fig. 5). I observed how the embryologists search the oocytes from follicular fluid; how they make the oocytes fertilized by just culturing it with sperm from husband or by injecting a selected single alive sperm into the oocytes; how they fertilized oocyte starts to cleave to form a blastocyst; how they frozen/thaw the blastocyst for returning it to the patient uterus. This part was my favorite and I spent two day in IVF lab. I also conducted the same process to the bovine oocytes though. Through these observation, I learned the human clinic perform it in more details with a fixed standard. The technique itself is not that difficult as I thought previously. I also spent a half day in sperm preparation room. I leaned how to evaluate sperm quality and how to separate active sperm form bad one. One thing impressed me was the name check system conducted during each process of sperm and oocytes. In an infertility, any mistakes in samples with different patient name could be enough to cause a medical accident. Therefore, they are very careful to

this. To avoid such mistakes completely, they adopt commercial management software system and conduct name check system by a third staff's eyes. For example, if one staff finish transferring oocytes to another new dish, this staff has to ask another staff to check it with both the management machine and his/her eyes.

My last day was in pharmacy and research center (Fig. 6). In pharmacy, the leader, Mr. Kiyono taught me how to stimulate follicle growth through various stimulation protocol with various drugs. In the research center, Dr. Hashimoto introduced me their recent works. Their main research interest is to improve assisted reproductive technologies. They already have plentiful achievements, making the clinic a leading infertility research center worldwide as well.

I finished the intensive internship on Jan 20, 2017 and returned to Sapporo in the evening.

- What do you think the positive impact of the activity will have on your further career path?

Through this fruitful internship, the most impressive positive impact, I think, is the enhanced confidence and willingness to choose embryologist as my further career path. Before this internship, I was not familiar with this job and was not certain about the future of this career. After this internship, I become to realize that embryologist is not only a wonderful job, but challenging one as well. Embryologists are wonderful because they are able to bring new members to numerous families. Embryologists are challenging because they are keeping developing better infertility treatments. Thanks to this internship, during the remained time in graduate school, I know how to prepare myself better for future job-hunting activity.

- Advice for your junior fellows

I tried to apply an institute in Canada first. Everything before visa application went smoothly. My visa applications were turned down for 3 times for the reason of unclear visit purpose. I still do not know what this mean. It may suggest that internship activity may belong to working, so normal tourist or study visa may be not suitable. Therefore, I hope junior fellows should pay GREAT attentions to visa application; it may be not as easy as you thought.

Many go to academic institutes for internship. I think it is a good place to explore future career path as a researcher. However, for someone trying to choose career path other than as a researcher, enterprises maybe more suitable for internship. So again, it goes back to the old question: what you actually want to be. However, if you still do not have a clear vision yet, I think it may be because your investigation/information is not enough. Therefore, I advise you do more research before choosing a suitable internship destination.

Final advice I may give is the way to rent a cheap house during internship. In my case, I found my accommodation on Airbnb website. The price was reasonable and the room is quite, clean and comfortable.

Approval of supervisor	Institution • Official title • Name Lab of Theriogenology, Graduate School of Veterinary Medicine Seiji KATAGIRI <div style="text-align: right;">印</div>
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- ※1 Send the electronic file to the Leading School section, International Affairs Office, also submit the original print out with seal of supervisor to the Leading School section, International Affairs Office.
- ※2 Attach a copy certificate of the content of internship activity that is prepared by the counterpart at the internship institution (any form with a signature of the counterpart).
- ※3 The Steering Committee of the Leading Program will first confirm the content of this report and report will be forwarded to the Educational Affairs Committee for credits evaluation.

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