This report should be submitted within 2 weeks after you return to Japan.

(Abroad · Domestic) Internship report form (Student) 2018/12/03 (Year/Month/Day)

Name	Angkhana Dermlim
Laboratory	Veterinary Internal Medicine
Year (Grade)	D4
Internship	Texas A&M University Veterinary Medical Teaching Hospital, College Station
institution	College of Veterinary Medicine & Biomedical Sciences, Texas A&M University, Texas,
	USA
Internship period	Internship period: 10/22/2018 - 11/23/2018
	(Departure Date from Sapporo: 10/13/2018, Arrival Date in Sapporo: 11/25/2018)
Purpose	-To learn state-of-the-art in my interested field (cardiology practice for small animals)
	and update knowledge about veterinary medicine practice in USA
	To make a connection with influential people in USA and show capability during
	training program such as ability to interprete and diagnose the disease including strong
	intention to be a resident or intern for further profession career

- The reason why you chose this institute

I chose this institute for an internship program because this would be a great opportunity to meet and discuss the new things in veterinary cardiology with Dr. Sonya Gordon (Associate Professor Cardiology) who is a world famous small animal cardiologist. Moreover, it would be a valuable time to attend for both international conference and internship at the near time in Texas.

- Result of the activity (about 800 words, provide photos, tables and figures that clearly show the activities during the period)

I was done internship at Texas A&M University Veterinary Medical Teaching Hospital (VMTH). This veterinary hospital includes 2 sections for small and large animals. The clinicians, staffs and veterinary students are committed to providing state-of-the-art and making the Texas A&M Veterinary Medical Teaching Hospital a model for excellence in Bryan and college station, throughout the state of Texas and beyond. The VMTH is the only veterinary teaching hospital in the state of Texas. This teaching hospital is where education and expert care come together. The fourth year veterinary students are integrated into the patient care team along with clinical faculty, residents, interns, and nursing staff. These veterinary students have already completed 3 years of medical education and are completing the final clinical requirements before graduation. Every patient that comes through the VMTH is accompanied by dedicated fourth year student from their admission until the day they go home. During my clinical observation, I followed the interested cases with fourth year students and interns who was taking care of that cases from medical history

taking, physical examination until the case go home. I gained a lot of experiences with clinical cases under specialist in cardiology. Most of Many of faculty here are board certified in their area of veterinary medicine. They are considered a Diplomate of the specialty college of their particular discipline, such as cardiology, internal medicine, etc. To do this internship program made me understand the residency training program in USA. A specialist undergoes demanding and extensive training consisting of 1 year of internship and 2 to 3 years of residency in their chosen specialty, all after completing 4 years of education to obtain their veterinary degree. Once they have successfully completed their internship and residency, they must submit and publish original research and complete additional examinations. Upon successfully completing all requirements for their discipline, the specialist receives the highly distinguished Diplomate status. Postgraduate training programs at Texas A&M University are designed for veterinarians who have graduated recently and have completed a formal rotating internship in USA. Such program also examines board requirement that veterinary school of the student who are interested in this program must be AVMA accredited or they have to pass either the ECFVG or PAVE exams. If this is the case, then I can be welcomed for this training program.

At this small animal hospital, that provides many specialty care units including cardiology, dentistry, dermatology, emergency medicine, general surgery, imaging/radiology, internal medicine, neurology, oncology, ophthalmology, sports medicine and rehabilitation, soft tissue surgery and zoological service.



Fig. 1 This shows specialty care units in the veterinary small animal hospital

In cardiology service, this unit diagnoses and treats valvular heart disease, cardiomyopathies, congenital heart disease, and heart failure among many other cardiovascular diseases. The cardiologists in this service are leaders in the fields of heart failure management, interventional cardiology, and cardiovascular surgery. The specialists have a lot of experience, and have successfully performed minimally invasive cardiovascular procedures for more than 20 years. The cardiology team include Dr. Sonya G Gordon (Associate Professor of Cardiology), Dr. Ashley B.

Saunders (Associate Professor of Cardiology), Dr. Sonya Wesselowski (Clinical assistant professor), and 3 veterinarian resident instructors (Dr. Matthews, Dr. Cusack and Dr. Janacek).

Everyday schedules

From 8:30 am to 10:00 am, I did some rounds (Electrocardiogram; ECG, cardiology cases, reading paper, journal discussion) and online learning) held by cardiology residents.

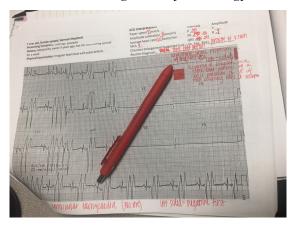


Fig 2. This shows ECG packet for ECG round

When patients came to the hospital, I started following the cases with fourth year students and interns from 10:00 am.

Observation of daily clinical activities in cardiology service includes:

- 1. Physical examination (auscultation, blood pressure measurement, blood collection)
- 2. Thoracic radiography interpretation
- 3. Echocardiography
- 4. Electrocardiogram
- 5. Abdominocentesis
- 6. Cardiac catheterization (cardiac balloon valvuloplasty) on Wednesday



Fig 3. These show some of the clinical activities in cardiology service

They usually perform cardiac procedure on Wednesday. I observed many cases that have been

performed cardiac catheterization such as balloon valvuloplasty in pulmonic stenosis dogs. Moreover, I learned the cases that I have never seen in my own country and Japan such as echocardiography in snake and canine Chagas cardiomyopathy disease which is a disease that has been increasingly diagnosed in Texas dogs and humans.

After finishing diagnosis, I joined clinical case discussion held by Dr. Sonya Gordon (1st and 2nd week) and Dr. Ashley B. Saunders (3rd and 4th week) until 17:30 pm, then I went back to home with faculty staff whom I stayed with.



Fig 4. This shows the room for doing cardiac catheterization.

In addition, I attended seminar called "Interventional vascular procedure" held by resident. I learned and updated knowledge about various cardiac procedures in small animals including the indications for each procedure. Unfortunately, I could not perform this procedure except for observation. However, it was a great opportunity to observe these kinds of catheter based techniques for the treatment of acquired cardiac disease.



Thank you Leading program for supporting this great opportunity

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

I think that this academic experience in abroad especially observation a large number of clinical cases during my internship at Texas A&M University encouraged me to be more tactical in making diagnosis and treatment for heart diseases in small animals. Such clinical experiences would

become my advantage, particular in knowledge about catheter based technique to work and apply those advanced methods to enhance the treatment for small animals medicine in the future.

Also, the opportunity to meet other famous researchers related to cardiology field in US and discuss specific research with those people broadened my specific knowledge base to become a good researcher in the future career and opened self-vision in medical education and clinical care. I also could get good advice and ideas for my future research, obtain new information in my interested field to expand scientific knowledge base and accelerate clinical research discoveries. It also would allow me to contribute and collaborate in all aspects of veterinary medicine and improve medical education as well as veterinary clinical care in Thailand in the future. In addition, visiting this institution made me to be known person to influential people for postgraduate training program.

- Advice for your junior fellows

I would recommend junior fellows to prepare for doing an internship program as soon as possible, especially in process for visa application and accommodation. In my case, I decided the place for internship program after I knew the result of acceptance for oral presentation at IVRA scientific conference. It was a great time to attend for both activities at the near time in Texas due to the limited budget. I had to prepare many things at a short time including program application, visa application, finding an accommodation and application for leading program. It was very heard time to complete those missions within the time.

	Institution · Official title · Name
Approval of supervisor	Laboratory of Veterinary Internal Medicine, Hokkaido University
	Dr. Takiguchi Mitsuyoshi

- * 1 Send the electronic file 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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