

Sept 10 (Sat)	We came to Thailand for the first time. Local staffs are so kind that they take us to shopping mall and guide us there. I ate Pad Thai for the first time and I think it is very delicious. After shopping, we got to apartment at which we stay. The first to go toilet, I didn't know where is the button which flush the toilet.
Sept 11 (Sun)	Local staff guided Kasetsart University and gave uniforms. But I'm so fat that I can't wear them. So I exchanged bigger uniforms. After that, we wrote document which is about scholarship of Jasso. Then we went to market to buy black shoes, and went to restaurant. It was very delicious.
Sept 12 (Mon)	We learned epidemiology for the first time in Thailand. I couldn't have understood what teacher said first, but I could make sense it as I was used to hearing English. In the afternoon, we went to Kamphaengsaen Campus by bus for meeting and welcome party. I spoke English as well as possible, but I couldn't tell them what I want to say. So I think that I am able to speak English very well.
Sept 13 (Tue)	We learned epidemiology at Kasetsart University. We practiced descriptive epidemiology by computer. We had difficulty analyzing data which teacher gave us, but finally we could do. When we ate lunch, we couldn't understand Thai language, so it wasn't until we were delivered food.
Sept 14 (Wed)	We went to temple to see what we can research as descriptive epidemiology. We feed to pigeons and fish in the temple. After that, we went back to Kasetsart University and discussed about what we research. But it is so difficult that we can't finish discussing. And we ate dinner at the restaurant around university.
Sept 15 (Thu)	We learned about how to analyze data in computer room. We analyzed data by applications of Promesa and Gpower. But we can't understand how to use them easily, so we had much time to understand them. When we had lunch at restaurant of university, we think that people in Thailand is so kind because someone helped us to order our food.
Sept 16 (Fri)	We went to Suvarnabhumi Airport to study about what veterinarian in the quarantine station of the aiport work. They prevent from spreading fatal disease in Thailand from other countries. They control animals and animal carcasses of importing and exporting and transiting by documents of vaccination and many inspections. And they inspect whether tourist



	import raw meat or not by quarantine dog which is Beagle. The reason why they use Beagle is that tourists are not scared and it is easy to move. Meat of importing from Japan is better quality than Australia, so the cost of importing from Japan is more expensive than Australia.
Sept 17 (Sat)	No Training
Sept 18 (Sun)	No Training
Sept 19 (Mon)	We learned analytic epidemiology of epidemiological studies in the morning. At first, we learned definition of Cross-sectional study, Case-control study and Cohort study. Dfference of these three observasional studies is that Cross-sectional study observes "What is happening? ", Case-control study observes "What happened?", Cohort study observes "What will happen?". After studying, we practice them by application of Win Episcope on the computer actually. We calculate relative risk and odds ratio by it. In the afternoon, we took a test of epidemiology. It is very difficult to understand what we must answer.
Sept 20 (Tue)	We learned analysis of quantitative data. Quantitative data has twe types, which are continuous data and discrete data. We analyzed quantitative data by t-test, ANOVA, Correlation and Regression. T-test can compare only two groups of data, and ANOVA can compare more than twe groups of data, and Correlation can compare only two groups of data which are not relative to each other, and Regression can compare only two groups of data which are relative to each other. At lunch, we went to eat with Dr. Suwicha and Dr. Min at restaurant which is outside of university. In the afternoon, we practiced analysis of data on the computer by them. I learned much, so my capacity of brain was full.



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Sept 21	We went to the temple near Kasetsart University to count the number of pigeons, visitors, drops of feces and pigeons with avipox for our epidemiological investigation. It was cloudy, but humidity is very high, so I sweated very much. At lunch, we went to eat with Dr. Suwicha and Dr.
(Wed)	Min at restaurant near the temple. In the afternoon, we continued to
	count them. After counting them, we went back to university by car, and
	went back home as soon as possible because we were very tired. So, we
	counted them all day long.
	We analyzed the data which we collected yesterday. We enter the data in
	an application of Excel last night, so we anlyzed by the applications, for
	example NCSS and proMESA. But we mistaked to enter the data, so we
Sept 22	fixed the data in the morning. At lunch, we went to eat with Dr. Suwicha
(Thu)	at the scool restaurant. In the afternoon, we analyzed the data by them.
	We use several data analysises, for example t-test and Chi-squared
	analysis. And we must make the presentation of tomorrow, but we
	couldn't make all of it.
	In the morning, we woke up at 6:30, and we made the presentation. We
	devided into result, discussion and conclusion, and others. I made the part
	of discussion and conclusion. But it was very difficult to consider them, so
Sept 23	I wanted time to make the presentation, so we delayed 45 minutes. Then
(Fri)	we started our presentation, but we use too long time. However, teachers
	listened all presentation, and gave us many questions and advices. We
	appreciate for all teachers who taught us about epidemiology very much. I
	think I like epidemiology better than usual.
	No Trainig
Sept 24	
(Sat)	
(Sat)	
	No Trainig
${ m Sept}25$	
(Sun)	



Sept 26 (Mon)	I learned surgery at Emergency part. But, I had only three cases, so I saw the surgery about Orthopedics in the morning. I saw the case that is tibia fracture of right leg and hip luxation of left leg. Doctor treat femoral head excision for hip luxation of left leg. And he treat external fixation for tibia fracture of right leg. Next case in the afternoon is about rib fracture. He treat only fixation of not rubs but intercostral muscle. And I studied about anesthesia little. The way to measure temperature is different from Japan. When we measure temperature, we put thermometer into rectum, but in Thailand, they put it into esophagus during surgery. I studied about several medicine, for example propofol is used in induction part of anesthesia.
Sept 27 (Tue)	I learned anesthesia at Emergency part. There were eight cases in the day. In the morning, Thai students told me how to record anasethia at pyometra case. NPO since is how long does patient eat nothing, and the difference of general anesthesia, inhalation, regional anesthesia, nerve block, and where do we have to see the monitor. However in the afternoon, I must do it at the case of enveleation by myself, so I was very nervous. But I finished it without incident owing to much help of Thai students.
Sept 28 (Wed)	I learned surgery at Soft-tissue part. I had three cases which are cystic culculi and mass of eyelid, right hip, chin and mammality gland tumor, and mass at in guinal area. First, I saw operation of cystotomy to remove cystlith. After this operation, doctor performed abdominal irrigation. I saw the surgery of rabbit to make road for urinating. When we keep vein of rabbit, we use vena cava of ear. I saw the surgery of femur fracture. The type is oblique frakuture, so doctor fixed it by plate and pin.
Sept 29 (Thu)	I learned surgery at Orthopedic part. I assisted the sugery of reform turtle's shell. How to reform is to fix by screw, wirer and acrylic. I saw the surgery of both hunerus fracture. This surgery had three hours. Locking screw is only to put into vertically but to fix verh much, but cortex is to do from all directions but not to fit much. I saw the surgery of rabbit which is ovario hysterectiomy. This case is uterine hyperplasia, so her uterus was bigger than usual.
Sept 30 (Fri)	I learned surgery at Orthopedic part, too. I saw the surgery of patellar luxation. And I assisted the surery of guinea pig which is enucleation. Enucleation is removing globe and nicitating membrane, on the other hand, exenteration is removing not only globe and nicitating membrane but also orbital contents and lid margin. After enucleation, doctor cut eyelids and suture.



Weekly Report Rakuno Gakuen University Name<u>Naoki Takahashi</u>

No training
No training
In the morning, I leaned OPD part at internal medicine. We measured
TPR and examined neurological test, for example pupillary response,
knuckling, and hopping reaction. But patient didn't have pupillary
response. And we draw blood in front of his owner. It was very surprised
for me. In the afternoon, I learned cytology of pathology. I distinguished
tumor cell from normal cell by seeing size of cell, nuclear, and cytoplasm.
And I learned cytology of round cell tumor, for example histocytoma, mast
cell tumor, lymphoma, and plasmacytoma.
I learned pathology by necropsy of cat. We learned how to check condition
of patient by hematology. We thought about the case of renal culculi. The
patient have abnormal filtration, inflammation of renal pelvis by culculi,
anisocytosis and poikilocytosis. At the necropsy, we check all organs and
lymph nodes. When we check urinary bladder, its color changed to green
by pseudo hydrogen.
We leraned how diagnose by CBC. We saw the case of anemia and icterus. This case has high MCV, anemia and low MCHC, so we thought it is blood
loss or hemolysis. And there are some nRBC and spherocytes, so this is
immune mediated hemolysis anemia. Icterus is caused by bilirubin which
is made from Hb when RBC is ruptured. So the function of liver is normal.
Treatment of this case are fluid and immunosuppressive drug and human
immunoglobulin.
We leraned cytology of solid tissue, for example inflammation,
non-neoplastic and neoplastic. If it is inflammation, there are cells of
inflammation like neutrophil. If it is non-neoplastic, it is hyperplasia or
hypertrophy etc If it is neoplasmic, it is tumor, for example basal cell
tumor, squamous cell tumor and mammaly gland tumor. In the afternoon,
we see round cell tumor by microscope.



Oct 7 (Fri) Oct 8 (Sat)	We learned how to diagnose tumors. We discussed about the case of marmoset which has mass of caudual abdomen. We don't know whether pregnant or not, so we use ultrasound echo to know it, but she is too little to see abdomen, so we use X-lay. We couldn't see bones of babies, so it isn't pregnant. She has non regenerative anemia and tumor cells at endometrium, so this mass is epithelial cell tumor.No training
Oct 9 (Sun)	No training
Oct 10 (Mon)	We learn microbiology. I learn no response to antibiotic treatment. This means that this pig is infected by not bacuteria but parasite or virus. And I learn three types of jaundice which are pre-hepatic, hepatic and post-hepatic. Pre-hepatic jaundice is caused by hemolysis. Hepatic jaundice is caused by injury of hepatocyte and cholestasis. Post-hepatic jaundice is caused by gull bladder culiculi.
Oct 11 (Tue)	I search about multinucleated syncytial cell. This cell is cluster of cytoplasm including from several to thousands nuclei and caused by viral infections, for example retro virus, herpes virus and paramyxo virus. In the afternoon, we practice PCR and agarose gel electrophoresis. This technique is difficult for me to understand because I have never practice at my laboratory.
Oct 12 (Wed)	I learn three types of ascites. One is exudate that fluids include protain more than 30g/dl and cells more than 7000/µl caused by inflammation and tumor. Second is transudate that fluids include protein less than 25g/dl and cells from 1000 to 2000/dl and caused by non-degenerated neutrophil macrophage. Third is modified transudatethat fluids including from 25 to 75g/dl and from 1000 to 7000/dl and caused by FIP and neoplasm.



Oct 13 (Thu)	I search about immunohistochemistry. This technique has two types, one is directly method and the other is indirectly method. If we use this technique for FIPV, we can't distinguish FECV or FIPV. In the afternoon, we practiced RT-PCR(Reverse Transcription-Polymerase Chain Reaction) and agarose gel electrophoresis.
Oct 14 (Fri)	I learned the system of agarose gel electrophoresis. The band of my group was very cleary and more white than positive sample. I think this is because there is much virus than other groups. And we presented our case presentations
Oct 15 (Sat)	No training
Oct 16 (Sun)	No training
Oct 17 (Mon)	I learned neurologicaly and exotic animal. There are many exams about neurologicaly such as propruception that is whether correcting after nackling or not, visual placing that is whether dog has stepping repaired reflection with recognizing here is on the table or not, and tacitil placing that is dog has stepping repaired reflection with touching examination table. The case of rabbit is tangling hair of back of hindlimb because of affecting stamping.
Oct 18 (Tue)	I learned exam of ophthalmology and fungo. The former is such as Schirmer test that inspect how much tear is. The normal range is from 15 to 25. If the value of this test is less than 15, the dog is suspected KCS(Karatoconjunctivitis sicca). And if it is less than 10, the dog is KCS. The other is such as Wood's light examination that is detected fungo such as Microsporum canis. If it is positive, there is fluorescented green.



Oct 19 (Wed)	I learned at radiology unit. If the dog has caliculi, we can see acoustic shadow under it by ultrasound. If the dog has gas in gastrointestine, we can white out under it. The contrast of tumor is different from normal on ultrasound. We cannot see pancreas and ureter. The difference between 9MHz and 5MHz is contrast and depth. 9MHz is more high contrast and deep than 5MHz.
Oct 20 (Thu)	I learned at feline clinic and OPD room. The treatment of megacolon is medicine that is for constipation such as cisapride and lactulose. Next case is transitional cell carcinoma of nose. There are no transitional cells but name is it because it looks like transitional cell. The case of dyspnea, hypothermia, hemolysis, and dehydration is used emergency case.
Oct 21 (Fri)	I learned at OPD room. The case of this day is itchy because we can see pinna-pedal reflex that dog flap the foot when we rub ear. But we cannot see saroptes by microscope. We can see several coccus, but they are resident microbiota, so we don't use antibiotic.
Oct 22 (Sat)	We move to KPS and stuffs guide us there.
Oct 23 (Sun) Chulalongkorn Memorial Day	No training.
Oct 24 (Mon) Chulalongkorn Memorial Day **Additional Public Holiday	No training
Oct 25 (Tue)	I learned about horse. We can know the age of horses by checking their teeth. If only upper centeral tooth are permanent, the age of this horse is 2.5 years old. And I learned how to do physical examination, for example hydration test, capillaly refill timetime, gut sound, temperature and mucousa membrane. I practiced cleaning their legs and arms, blood



	sampling, and intramuscular injection.
Oct 26 (Wed)	I learned about colic of horse. We can know how painful colic this horse is by checking physical examination, for example cardiovascular status, level of de hydration, auscultation of abdmen, rectal palpation and nasogastric intubation. If we anesthetize horse, we must measure heart rate and respiratory rate every five minutes.
Oct 27 (Thu)	I learned about neuology of horses. If we can know how lame this horse is, we have them run or walk. And I learned how to clean wound. First we wash abdomen by water if it is dirty, and scrubbing by chlorhexidine, and sprayed prowide and paint povidone inside wound.
Oct 28 (Fri)	I learned how to use electro-cardiogram. The horse of electro-cardiogram is very different from small animal. At small animal we use all clips, but at horse we use three clips. When we listen to gut sounds, we have to count how many times long sounds and short sounds we can listen for four minutes. We cannot see small intestine by ultrasound, but if you can see it, the horse has colic.
Oct 29 (Sat)	No training
Oct 30 (Sun)	No training
Oct 31 (Mon)	The case of today was about spindal pain of iumping horse. This horse jamped many times, so clearances between spindal processes are more narrow than usual. And they are rubbing each other, so there is a lot of pain. And then I took care of horse which is castrated. I wash his wound by chlorhexidine and povidone.



Nov 1 (Tue)	I learned neurological test espicially flexible test. We fixed each joint of fore and hind legs that is carpal, fetlock and hock joint. After fixing, we make horse running and observe how to run. And we check peniculas reflect, qutaneous tankai reflect, hopping test and tail pull test. Then we fixed legs by bandage.
Nov 2 (Wed)	I learned reproductive ultrasound. We can know whether this horse is pregnant or not for 14 days from ovulation. Dominant follicle is ovulated when its size is about 40mm. I learned uterine edema score. How we can know whether cyst or embryo is follow-up. If its size is bigger, it is follicle. But not bigger, it is cyst.
Nov 3 (Thu)	We make presentation that we present tomorrow, and study about our cases which we take care.
Nov 4 (Fri)	We present our presentation and oral examination.
Nov 5 (Sat)	No training.
Nov 6 (Sun)	No training.
Nov 7 (Mon)	I learned at wildlife unit. We can see examination of endoscope for hematoma of ventibule. Ventible of elephant is 90 cm long. We use sedative drug such as xylazine and duration is 120mg, and then use antagonist such as yohimbine and amount is 60mg which is culiculated from haif of xylazine. We watch videos that are "from frozen ti the forest" and movie which is about elephant.



Nov 8 (Tue)	We went to jungle. We could see deers of wildlife and footprints of tiger, deer, gaur and elephant. But we couldn't see wild elephants. And we could see the shelter of gaur. They protect gaurs by soft releasing that is to accustom environment before releasing to jungle. And they controlled by
Nov 9 (Wed)	satellite signal. We went to Bangken campus to study about exotic animal. We had many cases in the day, for example sugar glider, prairie dog, egret, gibbon and hedgehog. When we inject intermuscular to birds, we inject thick area of pectral muscle. When we dignose, we always think POMR(problem oriented medical record)
Nov 10 (Thu)	We studied about exotic animals such as turtle, rabbit, frog, bird and sugar glider. We can know whether turtle is bad condition or not by floating. If turtle is not floating, he is bad condition because there are lungs at the top of shell. And we made our presentation of exotic animal case about sugar glider.
Nov 11 (Fri)	We present our presentation and remake it.
Nov 12 (Sat)	No training
Nov 13 (Sun)	No training
Nov 14 (Mon)	We went to Nomg Pho to practice about cattle. I had three cases today that are pyometra, mastitis and anaplasma. At the case of pyometra, doctor injected PGF2 $\alpha$ because of causing uterine contraction. This make contents discharge. Anaplasma make mucous membrane colour pale pink, so cause heavy anemia.



Nov 15 (Tue)	I went to farm which has cattle of FMD. This is viral infection, so there is no medicine. There are many ulcers at interdigital, nasal and oral cavity and nipple. We can know involution of uterus by ultrasound or rectal palpation. This starts by autolysis and phagocytosis. The treatment of this case is only supportive medication that are NSAIDs and antibiotic.
Nov 16 (Wed)	I went to farm whose cattle don't show estrus sign in spite of that ovary has follicle or corpus luteum. I think that this is silent heat. And farmers have mistaken knowledge about medication because farmers teach from another farmer about medication and farmer can know how to treat when doctor treat their cattle.
Nov 17 (Thu)	We make presentation and present it.
Nov 18 (Fri)	Today I had no case that I went to farm. I stayed at hospital all day long. Isaw the case of overflesion that is congenital disease. If this disease causehind leg, doctor treat by surgery, but if fore legs, they treat by massage.And I saw the case of intestinal parasite which has drugresistance. Thepatient has cracking lung sound.
Nov 19 (Sat)	No training.
Nov 20 (Sun)	No training.
Nov 21 (Mon)	I went outside from hospital to treat cattle of farm. I saw cases of retained placenta mixed mastitis, AI and bloody diarrhea. Doctor did AI after he dissolved frozen sperm by water of 37 degrees Celsius. And doctor treat dry period at mastitis case, but there is mastitis yet, so that means failure treatment of dry period. We decided this mastitis case as case presentation, and bloody diarrhea case as case discussion.



Nov 28 (Mon)	We see the place of milking, storing and mixing feed at the demonstration farm. And we had presentation about the case of combination of retained placenta and mastitis
Nov 27 (Sun)	No training.
Nov 26 (Sat)	No training.
Nov 25 (Fri)	I went to Bangkok for ICVS. I heard presentations about exotic animal.
Nov 24 (Thu)	I went outside from hospital to treat cattle of farm. I saw the case of lameness and mastitis. But there are FMD cattle at the last farm, so we finished after coming back to hospital. If the color of milk which is lactated is no color, this is caused by E.coli. If you want to know this cow is lamness or not, we see their back and check that back is caived or not.
Nov 23 (Wed)	I stayed at hospital in the morning and we go outside in the afternoon. In the morning, I saw the case of aspiration pneumonia. When doctor feed calf, he drink with looking down, so I think this movement cause it. In the afternoon, we saw the case of dystocia. But the baby is normal position. We pull baby from uterine.
Nov 22 (Tue)	I stayed at hospital all day long. I saw the case of uterine prolapse. Doctor reduce uterine to original place. And we check feces of bloody diarrhea case by microscope. Then we can see the oocyst of parasite. And we examined gimusa staining, then we can see some bacteria including filamentous bacteria.



Nov 29 (Tue)	I did rectal palpation to check tht ovary has follicle or corpus luteum. Follicle is soft and corpus luteum is hard when we touch it. And we use ultrasound to see them.
Nov 30 (Wed)	I did epidual block, paravertebral block, cornal nerve block and auriculopalpebral block. And I collected blood from jugular vein and caudal vein, and collected urine. Then I did stomach intubation.
Dec 1 (Thu)	We made our presentation of bovine and AIMS project. And we had case discussion about bloody stool.
Dec 2 (Fri)	We had oral examination in the morning, and two presentation about bovine and AIMS project in the afternoon. And then we participated farewell party.
Dec 3 (Sat)	No training.
Dec 4 (Sun)	No training.