

(Abroad • Domestic) Internship report form (Student)

2016/03/30

Name	Mohamed Sobhy Hassan Elfeky
Laboratory	Biochemistry
Year (Grade)	4
Internship institution	Faculty of Medicine , Hong Kong University, Hong Kong
Internship period	Internship period: 1/3/2016 - 22/3/2016 (Departure Date from Sapporo: 1/3/2016 , Arrival Date in Sapporo: 22/3/2016)
Purpose	Internship

- **The reason why you chose this institute**

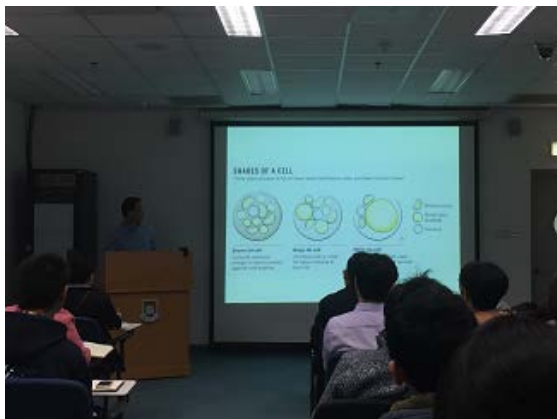
I had a great honor that leading program allowed me in February 2014 to invite Prof Yu Wang to give a special lecture for PhD students in our school about Adipokines – from discovery to therapeutic development. Dr Wang and her team members have carried out extensive original discoveries of novel biomarkers associated with obesity and the development of Type 2 Diabetes and cardiovascular diseases. A number of protein biomarkers are proved to be of therapeutic and diagnostic values in various cardiometabolic complications. After identifying each protein biomarker, Dr Wang's team continued the functional characterization and drug development using integrated molecular, cellular, animal and clinical approaches. Dr Wang has published four book chapters and over 130 research articles with an average citation of 35.78/article, and obtained five US patents. Her research on aging, obesity and diabetes has been well recognized internationally. Dr Wang is among the top 1% highly cited scientists according to ISI Essential Science Indicators. Additionally school of medicine, HKU had established antibody and immunoassay center which develops and produces high quality antibodies, recombinant proteins and immunoassays.

- **Result of the activity**

Now, after returning home, I can conclude that this internship at School of medicine, Hong Kong University was an extraordinary experience. I attended many lecturers, seminars, performed experiments, and had several discussions with Prof Yu Wang about my research, future collaborations and possible offers for postdoc fellowships.

### ***Lecture and seminar attendance***

I had the chance to attend a plenty of lecture and workshops in a new field of studies especially adipokines and adipose tissue inflammation, to present my current research, discuss with her laboratory members and receive a lot of help and answers from them



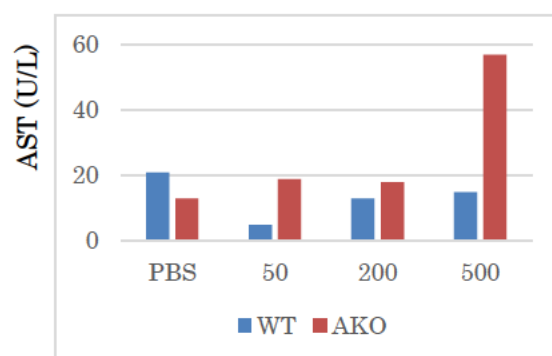
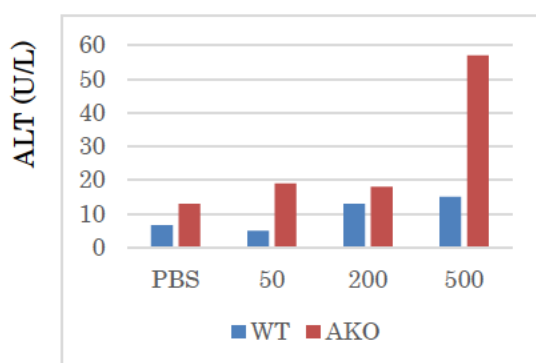
### ***Perform experiments***



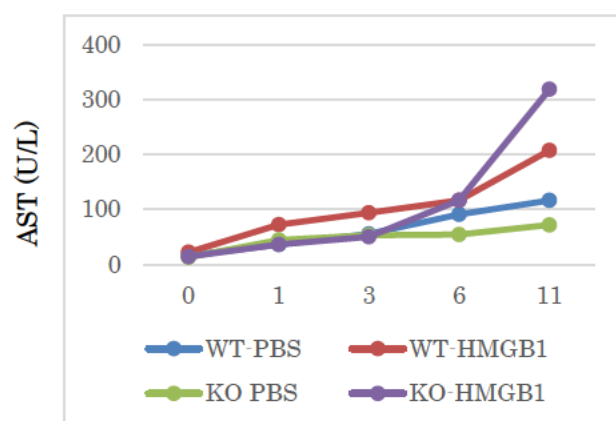
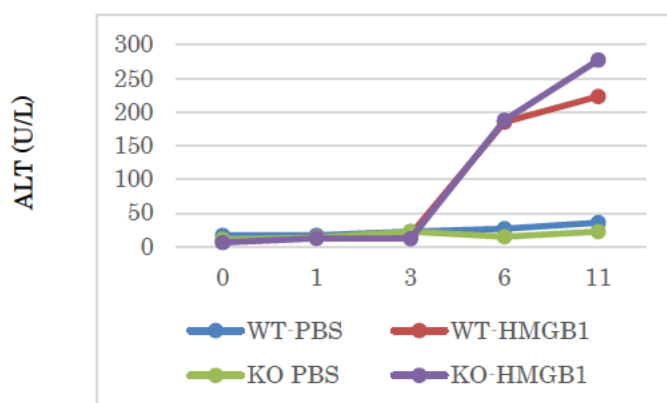
**One PhD student and another postdoc** helped me to inject my protein and collect samples

I had a great opportunity to perform the following experiments:

- I- Investigate the effect of HMGB1-induced inflammation in adiponectin-knockout (APN-KO) and wild type (WT) mice. I injected recombinant HMGB1 (I previously produced it here in our school) in different doses into APN-KO and WT mice.
1. Serum and liver samples collected at 3,6,12, and 24 hrs post HMGB1 injection
  2. Transaminases(ALT&AST) were measured in serum samples



- II- Examine the effect of HMGB1-induced inflammation in D-galactosamine sensitized APN-KO and WT mice.
- Mice were injected with galactosamine (15mg/mouse, i.p.) followed by injection with either vehicle or HMGB1 (400 µg/mouse, i.v.)
  - Serum was collected at 0,1,3,6 and 11 hrs



III- Investigate effect of LPS-induced HMGB1 release in APN-KO and WT mice

- Fasting : 12 hrs pre-injection
- Mice were injected with LPS (15mg/kg, i.p.), 3 mice each group (WT, WT+LPS, APN-KO, APN-KO+LPS)
- Serum was collected at 0,6,12 and 24 hrs
- Lung and liver samples was collected at 24 hrs post injection.
- **Analysis of samples not performed yet**



**- What do you think the positive impact of the activity will have on your further research, student life and career path?**

**The positive impact this activity will have on my future research, student life and career path are:**

1. I was able to test some of my research hypothesis which will be very helpful for my future research and writing grant proposals.
2. This internship provided me with new scientific ideas, strategies and techniques that will have a great impact on my future research and career path.

3. I establish a solid collaboration with not only Prof Yu but also her lab members.
4. I knew the requirements needed for getting a postdoctoral career in their university.
5. My teaching and learning skills were highly improved that will be very useful for my future job after my graduation.

### **- Advice for your junior fellows**

This is a great opportunity to strengthen your research experience, collaborations and get jobs/fellowships. I would like to advise them to acquire knowledge as much as they can and always keep in their mind that they are representative of our school and even university, therefore they have to pay a lot of attentions to their behavior and attitude when dealing with host professor and his/her lab members and even technicians because each institute or country have their own culture and system.

**Finally, I would like to thank leading program in our school to allow me to do this interesting internship. For me it was a unique experience and will have a great impact on my future career path and research.**

Approval supervisor	of	Institution • Official title • Name Hokkaido University; Professor ; Kazuhiro Kimura	印
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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.

Submit to : Leading School section, International Affairs Office

Ext: 9545 e-mail: [leading@vetmed.hokudai.ac.jp](mailto:leading@vetmed.hokudai.ac.jp)