(Abroad • Domestic)	Official trip report form	(Student)
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2016/04/05 (Year/Month/Day)

Name	Nipawit Karnbunchob	
Laboratory	Division of Bioinformatics	
Year (Grade)	DC3 (during period of trip)	
Destination	Dublin, Ireland	
Period of trip	March 11-21, 2016	
Purpose of trip	To learn an overview of current research developments in the infection biology area an	
	be able to translate into therapeutic modalities	

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

The purpose of the trip was to learn an overview of current research developments in the infection biology area and translating into therapeutic modalities in "Advance in Infection Biology 2016". This module took place at University College Dublin (UCD) in Dublin, Ireland during March 14-16, 2016.

Domestic flight on Friday, March 11

Departure from Hokkaido at 19:00 and Arrival in Tokyo at 20:40

International flight for transit on Saturday, March 12

Departure from Tokyo, Japan at 00:30 and Arrival in Dubai, The United Arab Emirates at 17:50 to transit to Dublin.

International flight on Saturday, March 12

Departure from Dubai, The United Arab Emirates at 14:35 and Arrival in Dublin, Ireland at 18:55, Check-in at Talbot Hotel, Stillorgan, Dublin

Sunday, March 13

Everyone met Professor Stephen Gordon at 12:30 in hotel lobby for lunch.

Monday-Wednesday, March 14-16

I attended the Advance Infection Biology modules, which contain six topics. Details of the modules are described in table below.

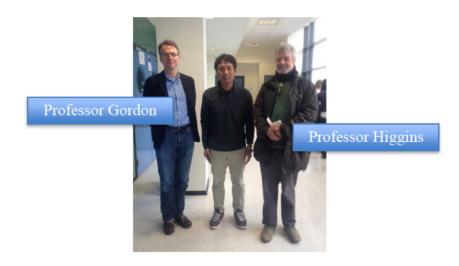
Date	Торіс	Subtopic
Monday 14	Host-pathogen interaction	- Introduction
		- Human and bovine TB
		- Oncogenesis and viral infection
		- Bacterial interactions with platelets
	Antimicrobials	- Current limitation in diagnosis and management of
		infectious disease
		- Antimicrobial resistance
		- Gram positive bacterial cell wall as a target for
		antimicrobials*
Tuesday 15	Vaccine	- Parasite Vaccine development
		- Fundamentals of Vaccinology*
		- Novel approaches to TB vaccination
	Global Health	- Viral Epidemiology in Africa**
		- Childhood pneumonia
		- HIV
Wednesday 16	Zoonosis	- Campylobacter
		- Glial cell activation in prion diseases**
		- Arbovirus interactions with the mammalian innate
		immune system
	Experimental design and grant	- Ethics of Animal experimentation
	writing	- Experimental design

Many lecturers came from UCD, which is host institute. However some lecturers came from others.

Although I could not understand all of detail, I received a lot of knowledge after attended these modules. I exchanged many experience and knowledge with the students who belong to other university or institute. I also met Professor Dr. Desmond G. Higgins, Professor of Bioinformatics at UCD. Professor Higgins is the person who made Clastal series that including Clastal W that I used to analyze some data in my research. The Clustal series are the series of computer programs to perform multiple sequence alignment.

^{*:} The subtopic that was lectured by the lecturer from Trinity College Dublin.

^{**:} The subtopic that was lectured by the lecturer from Hokkaido University.



Thursday, March 17

March 17 is the national holiday of Ireland "Saint Patrick's day". Every year on March 17, is the time for festival Irish culture. A lot of Irish will wear green cloth and/or hat to cerebrate the festival with many activities such as dancing, parade.

Friday, March 18

In the morning, I attended seminar that may people presented their research. I also presented my research on title "Amino acid substitutions on PB2 protein responsible for avian influenza viruses to adapt to swine". I explained about my studied to the persons who interested in my research that are showed as pictures below.





In the afternoon, this is a time for UCD tour. I visited veterinary hospital. The hospital provides a lot of services, which are small animal medicine, farm animal medicine, small animal surgery, equine, diagnostic imaging, anesthesia, and veterinary diagnostic laboratory. I had a time after UCD tour finished, I went to Dublin center to sightseeing and have dinner.

International flight for transit on Saturday, March 19, 2016

Check-out at Talbot Hotel, Stillorgan, Dublin, Departure from Dublin, Ireland at 12:55 and Arrival in Dubai, The United Arab Emirates at 00:25 (Sunday) to transit to Dublin.

International flight on Sunday, March 20, 2016

Departure from Dubai, The United Arab Emirates at 02:55 and Arrival in Tokyo, Japan at 17:20

I stayed at Narita Airport Rest House for one night to connect the domestic flight in Monday morning.

Domestic flight on Monday, March 21, 2016

Departure from Tokyo at 10:10 and Arrival in Hokkaido at 11:55

Finally, I really want to say thank you very much to every person who support and give me a best chance to join this trip.

Annuaval of	Institution • Official title • Name :	
Approval of supervisor	Division of Bioinformatics, Research Center for Zoonosis Control	印

*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.

Submit to: Leading School section, International Affairs Office

Ext: 9545 e-mail: leading@vetmed.hokudai.ac.jp