

(Abroad • ~~Domestic~~) Official trip report form (Student)

2016/04/06 (Year/Month/Day)

Name	Paulina Duhita Anindita
Laboratory	Division of Molecular Pathobiology
Year (Grade)	DC3
Destination	University College Dublin, Ireland
Period of trip	11 <sup>th</sup> – 21 <sup>st</sup> March, 2016
Purpose of trip	Attending a module of “Advances in Infection Biology”

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

I participated in a short trip to the University College Dublin (UCD) together with another nine students and five faculty staffs from the Graduate School of Veterinary Medicine and the Research Center for Zoonosis Control, Hokkaido University (HU). We attended the module of “Advances in Infection Biology” and a tour to the UCD Veterinary Hospital, both were organized by Professor Stephen Gordon at UCD. The module was carried out in the Veterinary Science Centre Room 15, UCD from March 14<sup>th</sup> to 16<sup>th</sup> and the list of lectures is provided in Table 1. On March 14<sup>th</sup>, it was started with the basic overview of host-pathogen interaction and was extended into talks about current vaccine and therapy development against bacterial, viral and parasitic diseases. Most of the lectures were given by professors from UCD. Two lectures about antimicrobials and vaccinology were given by professors from the Trinity College Dublin (TCD) and two lectures about viral epidemiology in Africa and prion diseases were given by Prof. Hirofumi Sawa and Prof. Motohiro Horiuchi from HU. The students attending this lecture came from the UCD, TCD, Maynooth University (MU) and HU.

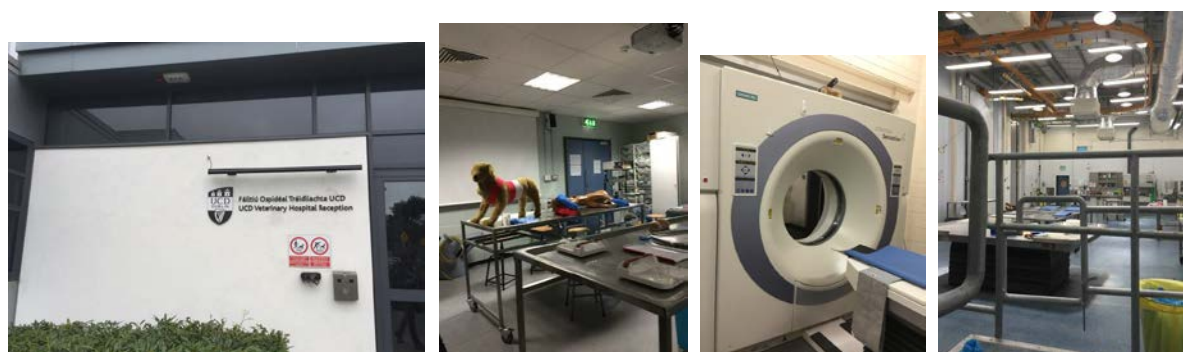


**Figure 1. Situation during lectures**

This module provided not only understanding and knowledge of current research developments in many infectious diseases, but also an overview about making ideas for submission of grant application, by taking an example from the Gates Foundation “Grand Challenges Explorations” grant with initial fund of \$100,000. One lecture covering this topic was given by Dr. Joe Gallagher who received the grant with a

research about biomarker profiling to diagnose a bacterial pneumonia targeting children in the community in the sub-Saharan Africa. Also in this lecture, the students were assigned to discuss this topic in small groups for 5 minutes and gave a small presentation about a diagnostic strategy for pneumonia. Interestingly, some students from different universities got a chance to discuss together during this session. Moreover, students and lecturers had an active discussion at the end of each lecture. Students from HU also actively involved in this activity. At the beginning of the second day of the module (March 15<sup>th</sup>), each student was asked to introduce his/her name, university and current study, therefore everyone attending this module was able to recognize each person better. This kind of introduction finally led to interaction among students and professors during lunch time.

On the fifth day (March 18<sup>th</sup>), there was a small scientific meeting where students could share their recent work in a 10-minute presentation. I had a chance to present my recent research activities along with five students from HU, two students from UCD and one student from TCD. I presented about my study in a screening of compounds targeting rabies virus. The students had active discussion during the presentation time. After a short lunch break, there was a tour to the UCD Veterinary Hospital hosted by a clinician in equine medicine and surgery, Dr. Clodagh Kearney, the students and faculty staffs from HU were able to see almost all parts of the hospital veterinary service for small and large animals with many good equipment to ensure the best service. For large animals care, there are stables, cowshed, animal drop-off area and examination area. Examination rooms for small animals are located inside the hospital building. The hospital also provides operation rooms and diagnostic imaging equipment, suited for both small and large animals. Several rooms in the hospitals are available as tutorial rooms where students can learn about surgery and internal medicine using animal dummies.



**Figure 2. UCD Veterinary Hospital**

Apart from the module of “Advances in Infection Biology” and a tour to the UCD Veterinary Hospital, students from HU were arranged to have some activities together with students from UCD: Andres Garcia-Campos, Louise Britton and Alicia Smyth. Andres and Louise visited HU last March 2015. We watched a historical movie of Michael Collins, an Irish revolutionary leader who played a role in Ireland’s independence from Great Britain. The movie was played in a cinema theater inside the UCD

Student Center. It was a good chance to learn about the history of Ireland. The student center itself is a big, integrative building that provides a sport gym, a swimming pool and many rooms to support the student clubs. The UCD campus itself consists of six colleges and the constituent schools for delivering teaching, scholarships and research. In addition, UCD also has research centers and institutes for many different research programs.

Finally, this trip to UCD has given an opportunity for me to receive lectures given by professors from Ireland, to interact with other students of UCD, TCD and MU and to understand the difference in study and life situation between Japan and Ireland.



Figure 3. Other activities

Table 1. List of lectures during module of “Advances in Infection Biology”

Date	Topics	Lecturers
Monday 14 <sup>th</sup> March	<b>(1) Host-pathogen interaction</b> <i>Introduction</i> <i>Human and bovine TB</i> <i>Oncogenesis and viral infection</i> <i>Bacterial interactions with platelets</i>	Prof. Stephen Gordon Prof. Stephen Gordon Dr. Noreen Sheehy Dr. Jennifer Mitchell
	<b>(2) Antimicrobials</b> <i>Current limitations in diagnosis and management of infectious disease</i> <i>Antimicrobial resistance</i> <i>Gram positive bacterial cell wall as a target for antimicrobials</i>	Dr. Kirsten Schaffer  Prof. Shea Fanning Prof. Kevin Devine (TCD)
Tuesday 15 <sup>th</sup> March	<b>(3) Vaccines</b> <i>Parasite Vaccine development</i> <i>Fundamentals of Vaccinology</i> <i>Novel approaches to TB vaccination</i>	Prof. Grace Mulcahy Prof. Ed Lavelle (TCD) Dr. Joe Cassidy
	<b>(4) Global Health</b> <i>Viral Epidemiology in Africa</i> <i>Childhood pneumonia</i>	Prof. Hirofumi Sawa Dr. Joe Gallagher

	<i>HIV</i>	Dr. Aoife Cotter
Wed 16 <sup>th</sup> March	<b><i>(5) Zoonosis</i></b> <i>Campylobacter</i> <i>Glial cell activation in prion diseases</i> <i>Arbovirus interactions with the mammalian innate immune system</i>	Dr. Marguerite Clyne Prof. Motohiro Horiuchi Dr. Gerald Barry
	<b><i>(6) Experimental design and grant writing</i></b> <i>Grant writing and overview of assessment</i>	Prof. Stephen Gordon

Approval of supervisor	Institution • Official title • Name : Div. Molecular Pathobiology Professor Hirofumi Sawa	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.

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