

Abroad · Domestic) Official trip report form (Student) 2016/04/02 (Year/Month/Day)

Name	Md Atiqul Islam
Laboratory	Laboratory of Laboratory Animal Science and Medicine
Year (Grade)	D2
Destination	UCD, Dublin, Ireland
Period of trip	11 <sup>th</sup> March to 20 <sup>th</sup> March , 2016
Purpose of trip	<ul style="list-style-type: none"> <li>• Be able to synthesize the key concepts in the field of Infection Biology into a clear framework.</li> <li>• Hypothesize on how novel research approaches will contribute to disease surveillance, diagnosis, treatment and management.</li> <li>• Devise new approaches to their own research work based on the concepts learnt in the module</li> <li>• Be able to plan how their research experience and expertise could be applied to other areas of the Infection Biology field</li> </ul>

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

I, along with Professors and colleagues arrived at Dublin, Ireland on March 12, 2016 to attend in intensive training course of infection biology. The aim of this graduate course is to provide students an overview of current research developments in the infection biology area, and how these are translating into novel therapeutic modalities. I learnt some key concepts in Infection Biology from the “bottom up”, starting with the molecular basis of host-pathogen interaction, moving to animal models, systems biology approaches, population level studies, issues in global health, and therapeutics and vaccines. This module allowed me to think in boarder perspective in infection biology research field .The module comprises 6 sessions, morning and afternoon, mainly running over three days at UCD from 14<sup>th</sup> March to 16<sup>th</sup> March, 2016. Most importantly, this module started on 14<sup>th</sup> March by welcoming speech from Prof. Gordon and with overall course outline and social activities. Prof. Gordon explained his current works and the challenges to control TB. Prof. Mitchell talked on bacterial interactions with platelets in bloodstream infections and her motivational talk about organisms helped me to re-think that I am not alone even for a single moment as because commensal and opportunistic organisms are always with me. Prof. Kevin talked about antibacterial resistance which is really a big issue for the researchers to tackle this problem for future and this understanding is important to think about therapeutic approach with antibiotics. The talk of Dr. Sheehy on Host/viral interactions involved in the pathogenesis of a few key human tumor viruses animal tumor viruses led to the discovery and characterization of oncogenes and tumor suppressor proteins and highlighted the potential use of viruses as therapeutic agents. The discussion from this lecture helped me to think broadly about infectious disease in different point of view to address path-biology of cancer. Prof. Mark in his lecture reminds us about use of laboratory animals that mainly based on ethical issues and proper use laboratory animals in research. It was reminder once again to 3R concepts (Replacement, Reduction,

and Refinement) in use of laboratory animals in research field.

Following 2<sup>nd</sup> and 3<sup>rd</sup> day of modules, I received several lectures and active discussion throughout the course that nourished my understanding in infection biology. Most prominently, one group discussion was really exciting to provide quick idea and writing grant application in competitive organizations. It was important to know a quick response and delivering research idea to donor agency's need in specific time period of a funding call. I achieved overall concepts to synthesize my knowledge and to apply for competitive grant applicant. Critical point of a successful grant application is to be emphasized on clear aim of grant application and step to achieve goals of the project should be concretely specified depending on need of donor agencies. I got an additional advantage to have an open access in nature master class for one week to improve my writing skills for research article. Actually, it was nice environment to nurture my knowledge by getting lectures from renowned professors of UCD and got an opportunity for active interaction and discussion with international students and professors throughout the entire course tenure. This course allowed me to think critically and scientifically to address different health issues particularly infectious diseases and I could apply such understanding to improve my current PhD project, here in Graduate school of Veterinary medicine, Hokkaido University. Such type of activity is really helpful for me to become independent researcher in future.

Apart from academic and scientific learning, I got several exposures to be oriented in new culture and history of the Ireland by visiting Museum, central park, Dublin city Viking tour, etc. One of the remarkable memories was to attend in an Irish dinner party with traditional live music and dance hosted by Prof. Gordon which allowed me understanding the rich tradition and culture of Irish people. It was an immense opportunity for me to celebrate St. Patrick day, a cultural and religious celebration held on 17 March. This year about half million peoples gathered together and attend in public parades. On last day, 18<sup>th</sup> March, we had students oral presentations sessions mostly based on our current PhD work where I was first speaker. My talk was entitled "Analysis for resistance/susceptible genes to *Echinococcus multilocularis* infection in the mouse" I got several feedbacks, suggestion and recommendation from the audience to improve my research study. Finally, I also visited UCD veterinary hospital and got an opportunity to observe and learnt about advanced veterinary services, particularly the facility for large animals especially for horse. The hospital is well equipped with advanced technologies to provide services to satisfy owners of animals. This is really an amazing practical experience for me to know such type of facilities for animals that also remind me once again, I am not only a PhD student but also a veterinarian. Finally, I returned back to Japan from Dublin, Ireland with wonderful memories and fruitful learning.

Please have a kind look to the following pictures which could reflect about some activities in UCD, Dublin, Ireland.



Presentation at UCD about my PhD work



Group discussion in lecture Hall, UCD



At city center, Dublin in St. Patrick Day



At city center, Dublin in St. Patrick Day



Dinner party in an Irish traditional restaurant



Last get together  
to say goodbye

Approval of supervisor	Institution • Official title • Name : Graduate School of Veterinary • Medicine Professor • Takashi Agui <div style="text-align: right;">印</div>
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