

Advanced Research Scholar – Grants-Related

Francis Fontanilla

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Philippine University	University of the Philippines Diliman
Field of Study:	<i>Chlamydia trachomatis</i> pathogenesis
Research Period	March 2017 – September 2017
US University	Washington State University
US Professor	Dr. Rey Carabeo
Research Title	<i>Chlamydia trachomatis</i> attenuates the interferon gamma-induced Signal Transducer and Activator of Transcription-1 (STAT1) nuclear translocation by CT813-mediated KPNA1 sequestration

Describe your research conducted in the US.

C. trachomatis infection often leads to the inflammation of both male and female reproductive tracts. However, the mechanisms underlying its pathogenicity are not fully understood. Its nature as an intracellular pathogen requires the manipulation of host cellular machineries to allow growth and development within the confines of its host. In this project, we want to identify how *C. trachomatis* inhibit the nuclear translocation of STAT1 which is a transcription factor necessary for proper immune response against intracellular pathogens.

What was the highlight of your research in the US?

One of the highlights of doing research in the US was being mentored by people who are considered experts in the field. I was fortunate to have Dr. Rey Carabeo and Dr. Joyce Ibana as mentors because their background in host cellular biology and immunology contributed a lot in shaping my research. Also, having access to imaging facilities made it possible to acquire high-resolution images and do extensive analyses.

In what way has the USAID scholarship changed you?

Having this opportunity of doing research overseas for six months taught me how important and exciting basic scientific research is. As a young scientist, this experience will help me decide what field to pursue as a career.

How would you use the knowledge and skills gained through your research to contribute or influence economic growth in the country?

I think one important thing that I learned from this scholarship is to look at different approaches in addressing a particular question or experiment. With this mentality, we can develop better ideas and policies that translate to better economic growth in the Philippines.

As a young scientist, what do you envision for the Philippine science, technology and innovation ecosystem in the next 10 years?

I hope that for the next 10 years doing research in the Philippines is as convenient as doing research here in the US as far as equipment and reagent availability. Research in the Philippines is continuing to develop, and I think with the right environment and policies, research will prosper.

The research Francis conducted in the US was part of his thesis for his Master's program in UP Diliman. After returning to the Philippines, Francis plans to participate in any upcoming workshops organized by his university laboratory to share what he learned in the US particularly on doing imaging experiments.

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