APMEN Fellowship Program
2012 Recipient
Jo-Anne Bibit

“The main objective of my fellowship was to gain knowledge of parasite genetic diversity and population dynamics. Genotyping is an important tool for supporting therapeutic efficacy studies (TES) that are regularly conducted in the Philippines.”

Ms Jo-Anne Bibit, Research Institute for Tropical Medicine, the Philippines

Plasmodium vivax genotyping to support therapeutic efficacy studies

Ms Jo-Anne Bibit is a Science Research Specialist at the Research Institute for Tropical Medicine (RITM), based in Manila, Philippines.

Jo-Anne completed her APMEN Fellowship Program at the Australian Army Malaria Institute in Brisbane, Australia, under the supervision of Dr Qin Cheng, with the close support of Lieutenant Simone Dowd and Professor Dennis Shanks.

The Australian Army Malaria Institute has been an APMEN Partner Institution since APMEN’s establishment in 2009.

Learning activities of Jo-Anne’s fellowship included:

1. The method of DNA extraction from dry blood spot on filter paper

2. Technique of plasmodium species confirmation using multiplex PCR and species-specific PCR

3. Microsatellite genotyping of Plasmodium vivax using 7 markers: MS16, Pv3.27, MSP1F3, MS1, MS5, MS8, MS10 and Plasmodium falciparum using 8 markers: Poly A, TA1, TA A60, TA A81, PfPK2, TAA87, ARA2 and TAA109

4. Data analyses on genetic diversity and distinguishing recurrent infections using bioinformatics.

Jo-Anne hopes to establish relevant P. falciparum and P. vivax molecular studies in RITM that contribute towards the Philippines Malaria program’s elimination efforts.

“Genotyping techniques will help us in our plan to conduct population genetic surveys to map the diversity and structure of the parasites, and also to help in the assessment of drug resistance, particularly in determining recurrent P. vivax infections.”