

Detection of Zika Virus Infection in Myanmar

Mya Myat Ngwe Tun,¹ Aung Kyaw Kyaw,^{1,2} Saw Wut Hmone,³ Shingo Inoue,¹ Corazon C. Buerano,^{1,4} Aung Min Soe,^{1,2} Meng Ling Moi,¹ Daisuke Hayasaka,¹ Hlaing Myat Thu,² Futoshi Hasebe,¹ Kyaw Zin Thant,² and Kouichi Morita¹

¹Department of Virology, Institute of Tropical Medicine, Nagasaki University, Nagasaki, Japan;

²Virology Research Division, Department of Medical Research, Pyin Oo Lwin, Myanmar;

³Department of Pathology, University of Medicine-1, Yangon, Myanmar;

⁴Research and Biotechnology Division, St. Luke's Medical Center, Quezon City, Philippines

Abstract Book: 66th Annual meeting of the Japanese Society for Virology, Kyoto, Japan, 2018.

Zika virus (ZIKV), an emerging mosquito-borne flavivirus, causes a dengue-like infection that has recently caught global attention. The infection, which also includes some birth defects, has been documented in the Americas, Pacific Islands, and some parts of Africa and Asia. There are no published reports on local ZIKV transmission in Myanmar. In this study, a total of 462 serum samples from patients and asymptomatic persons were collected in Myanmar from 2004 to 2017. They were analyzed for ZIKV infection by immunoglobulin M capture enzyme-linked immunosorbent assay (ELISA), immunoglobulin G indirect ELISA, neutralization test, real-time polymerase chain reaction (PCR), and conventional PCR. Our study confirmed ZIKV infection in 4.9% of patients with clinical dengue symptoms and in 8.6% of persons who were asymptomatic. This is the first report on ZIKV infection in Myanmar and it suggests the occurrence of ZIKV infection in two geographically distinct sites in this country since at least 2006.