Form 5 Dissertation Evaluation Report

| Report No. | | iploma Number: -BIO1264 | Applicant's Name | Nguyen Co Thach |
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Evaluation Report of Dissertation

1. Evaluation of the research purpose.

The thesis is designed to investigate an epidemic situation of Zika virus (ZIKV) infection in the central highlands region in Vietnam between 2017 and 2018. The research purpose is clearly defined and reasonable,

2. Evaluation of the research methods.

To identify the confirmed ZIKV infection by serology, blood samples were applied to well established antibody detection systems namely, anti- ZIKV IgG and IgM, anti- ZIKV NS1 IgG, anti-dengue virus (DENV) IgG, and the plaque-reduction neutralization test (PRNT) for ZIKV or DENV. To analyze the regional sero-epidemiological condition, trans-sectional and longitudinal studies were combined. The methodology was well designed.

3. Evaluation of the analysis, interpretation and discussion.

From 801 randomly selected inhabitants, 9 persons were confirmed ZIKV infection in 2017. The anti-ZIKA IgM showed many false positive but anti- ZIKV NS1 IgG showed more closely related to NRNT. Longitudinal study for 2017 anti-ZIKV IgM positives was properly analyzed and interpreted. The discussion about the limited prevalence in the region in 2017 is appropriate.

As stated above, the dissertation will greatly contribute to epidemiology of vector-born viral diseases, and the evaluators uniformly agree that the author should be awarded a Doctor of Philosophy in Medical Science.