

to collect mosquito saliva, directly concentrate proteins by trichloroacetic acid precipitation, and fractionate them by non-denaturing PAGE. We performed immunoblot analysis with these proteins and sera from 200 Thai children who had been diagnosed with DF, DHF, or no dengue virus infection. We showed a possible correlation between the presence of antibodies to certain *Aedes aegypti* saliva proteins and severity of disease. These results suggest that the immune response to vector mosquito salivary proteins might play a role in the outcome of this arboviral disease.

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## **PROBLEMS ENCOUNTERED IN THE MOLECULAR DETECTION OF DENGUE VIRUSES**

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The dengue virus (DENV) molecular typing method, reverse transcriptase - polymerase chain reaction (RT-PCR), described by Lanciotti (Lanciotti et al., 1992) has been used in many laboratories for detecting DENV infection. However, we currently have observed some non-specific results when using this method to detect DENV infection. Some samples showed evidence for multiple infections by two different dengue serotypes, in most cases, DENV-1 plus another serotype. Additionally, some samples gave positive results for DENV-1 by serological tests or show a right size of DNA fragment amplified from the first-round PCR, but negative results by the nested PCR (the second-round) in agarose gel. These non-specific results thus interfered with our ability to accurately detect DENV infection by using this technique. We designed a few of new primers based on our Thai sequence database of DENV variants to modify Lanciotti's RT-PCR and eliminate non-specific reactions in detecting Thai DENV variants.

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## **A RANDOMIZED, PLACEBO-CONTROLLED, STUDY OF NON-PEGYLATED AND PEGYLATED FORMS OF RECOMBINANT HUMAN INTERFERON- $\alpha$ -2A FOR SUPPRESSION OF DENGUE VIREMIA IN RHESUS MACAQUES**

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Infection with any dengue viruses can produce a spectrum of disease, ranging from a mild febrile illness, to classic dengue fever, to the most severe form, dengue hemorrhagic fever (DHF). There is growing evidence that viremia levels and the overall viral burden are greatest in DHF. A therapeutic intervention to suppress viremia early in dengue infection could potentially ameliorate severe disease. Two sequential studies examined the effects of recombinant interferon- $\alpha$  (rIFN- $\alpha$ )-2a (Roferon<sup>®</sup>-A) and pegylated rIFN- $\alpha$ -2a (PEGASYS<sup>®</sup>) on dengue-2 (D2) viremia