

**Thesis Title**                    **Evidence of Sendai and Mouse Hepatitis Viruses  
Infections in Laboratory Mice in Thailand  
: A Preliminary Study**

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### **Abstract**

The evidence of Sendai virus (SV) and mouse hepatitis virus (MHV) infections in laboratory mouse were investigated at three laboratory animal units in Thailand using ELISA technique for antibody detection during January 1992 to February 1993.

The investigation was carried out in a breeding colony at the National Laboratory Animal Center, Thailand (NLACT). Three age-groups of mice, i.e. 3 weeks old, 8 weeks old and retired breeder (over 22 weeks old) of outbred Swiss

Albino mice were randomly selected from the breeding colony at 2-month intervals. Ten blood samples of males and females were collected from each group at each interval. The assay revealed no positive samples for either virus. Autopsies of these animals also showed no signs of the SV and the MHV infections.

The technique were exploited at 4-weeks intervals for almost a year to detect possible infection in male and female outbred Swiss Albino mice continuously kept after weaning at the NLACT and at the Faculty of Science, Mahidol University (FAC-SCI) where hygienic conditions were distinctly contrast. At each interval blood samples were collected from 12 males and 12 females at each animal facility. At the Fac-SCI one 47 weeks old female was positive for the SV. One 43 weeks old male and female and one 47 weeks old male were positive for the MHV. All samples at the NLACT were negative for both viruses. There were neither clinical nor pathological evidences related to the infection at both institutes, but other abnormalities at necropsy were as high as 70.8% at the FAC-SCI and as low as 3.5% at the NLACT

Another investigation using similar technique to detect the infection from a breeding colony of unidentified mice at an undisclosed animal unit showed 96.3% and 3.7% MHV infection in males and females respectively.