Experimental Infection of Black Tiger Shrimp with *Penaeus monodon* Densovirus (*PmDNV*)

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**ABSTRACT**

*Penaeus monodon* densovirus (*PmDNV*) (formerly hepatopancreatic parvovirus or HPV) is one of the major causative pathogen of shrimp with a slow growth rate and stunted appearance in Thailand. The lack of available shrimp cell lines and limited studies on the experimental infection of *PmDNV* have hampered the study of this disease in shrimp. This study provides the evidence of *PmDNV* infection in *P. monodon* by injection through haemolymph. The black tiger shrimp (*P. monodon*) was injected with the *PmDNV* lysate extracted from hepatopancreas of *PmDNV* infected shrimp. PCR and RT-PCR were used to analyse the viral infectivity. Treated shrimp were collected on Days 1, 7, and 14 post-inoculation. The considerably higher *PmDNV* was detected on Day 14 post-injection when compared with the first date after injection. It indicates a successful technique for experimental transmission of *PmDNV* in *P. monodon*. This work is supported by Thailand Research Fund and Mahidol University (DBG53-PA), the Office of the Higher Education Commission and Mahidol University under the National Research Universities Initiative and Mahidol University research grant.

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