

Adilan Hniman 2006: Development of Molecular Markers within Protein Genes  
Containing Leucine-Rich Repeat for the Identification of *Leptospira*. Master of Science  
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Program. Thesis Advisor: Assistant Professor Siriwan Praong, Ph.D. 97 pages.  
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To identify each serovar, a polymerase chain reaction (PCR) was performed with primer sets designed from genes containing leucine-rich repeat (LRR) of *Leptospira interrogans* serogroup Icterohaemorrhagiae serovar Lai. These genes were divided into 5 groups and their primers were designed 3 sets. There were two primer sets, set 1 and set 3, that were selected to prepare genetic markers. To create LRR molecular markers, their PCR products derived from primer set 1 and set 3 were analyzed by using capillary electrophoresis and GeneScan<sup>®</sup> Analysis Software version 2.1. The results showed that PCR products from primer set 3 shown more diversity molecular makers than that of primer set 1. Moreover, the different molecular makers from primer set 3 could identify pathogenic *Leptospira* spp. in serovars level. Therefore, this finding inspires to future study on functions of proteins containing LRR of *Leptospira* and it also was used as a basic method for studying pathogenesis and identifying different *Leptospira* serovars.

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