RESEARCH NOTE

IDENTIFICATION OF EHRLICHIA SPP IN CANINES IN THAILAND

Charoonluk Jirapattharasate¹, Jarin Chatsiriwech², Parut Suksai², Tanasak Changbunjong², Thanakorn Rawangchue¹, Walasinee Moonarmart³ and Sivapong Sungpradit¹

¹Department of Pre-clinic and Animal Science, ²The Monitoring and Surveillance Center for Zoonotic Disease in Wildlife and Exotic Animal, ³Department of Clinical Science and Public Health, Faculty of Veterinary Science, Mahidol University, Nakhon Pathom, Thailand

Abstract. Canine ehrlichiosis is an endemic parasitic disease widely found in Thailand. The causative microorganism is tick-borne *Ehrlichia* spp, an obligate intracellular rickettsia residing in leukocytes. *Ehrlichia* spp in morulae-positive canine blood samples were identified using polymerase chain reaction amplification and direct sequencing of *Ehrlichia* spp. 16S rDNA 396 bp fragment and 36 of 59 were positive for *E. canis*. *E. chaffeensis* and *E. ewingii* were not detected. Sequencing alignment and phylogenetic analysis showed that 16S rDNA sequences of *E. canis* strains are 99.1-100% identical among *E. canis* strains from different countries worldwide. Further studies are required in order to determine new target sequence for genotyping of *E. canis* strains in the dog population in Thailand.

Keywords: *Ehrlichia canis, Ehrlichia ewingii, E. chaffeensis,* 16s rDNA, phylogenetic tree, dogs, Thailand

Correspondence: Charoonluk Jirapattharasate, Department of Pre-clinic and Animal Science, Faculty of Veterinary Science, Mahidol University, 999 Putthamontol-4 Road, Salaya, Nakhon Pathom 73170, Thailand.

Tel/Fax: 66 (0) 2441 5242

E-mail: Charoonluk.san@mahidol.ac.th, vscsl@

mahidol.ac.th