



A novel rare copy number variant of the *ABCF1* gene identified among dengue fever patients from Peninsular Malaysia

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ABSTRACT. Copy number variation (CNV) is a form of genetic variation in addition to single nucleotide polymorphisms. The significance of CNV in the manifestation of a number of diseases is only recently receiving considerable attention. We genotyped 163 dengue patients from Peninsular Malaysia for genes possibly linked to dengue infection using quantitative real-time PCR. Here, we report a serendipitous discovery of a novel rare CNV of the *ABCF1* gene among the dengue patients. Among these patients, two had a gain of

1 copy (CN = 3) and one had lost 1 copy (CN = 1), indicating that a rare CNV of the *ABCF1* gene was detected among dengue patients from Peninsular Malaysia. Although the gene is suspected to regulate inflammatory responses and pathogen-induced cytokine storm, its relevance to dengue requires further investigation.

Key words: Rare copy number variation; ABCF1; MHC; qPCR