Vaccine potentials of excretory-secretory antigens of 4 week old juveniles against *Fasciola gigantica* in mice

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In *Fasciola gigantica*, excretory-secretory products (ES) are the target for vaccination against this parasite. The vaccination was performed in Imprinting Control Region (ICR) mice (n=10) by subcutaneous injection with 50 µg of ES of 4 week old juveniles combined with Freund’s adjuvant. Two weeks after the second boost, mice were infected with 15 metacercariae by the oral route. The percent protection of ES of 4 week old juvenile vaccines was estimated to be 64, 67% when compared with non vaccinated infected and adjuvant infected controls, respectively. By determining the levels of IgG1 and IgG2a in the immune sera, which are indicative of Th2 and Th1 immune responses, it was found that both Th1 and Th2 responses were significantly increased in ES of 4 week old juvenile immunized groups compared with the control groups, with higher levels of Th2 (IgG1) than Th1 (IgG2a). The levels of serum aspartate aminotransferase (AST) and alanine transaminase (ALT) in ES of 4 week old juvenile immunized group showed significant decrease when compared with control groups. The pathological lesions of livers in vaccinated groups showed significant decrease when compared with control groups. This study indicates that ES of 4 week old juvenile has a potential as a vaccine candidate against *F. gigantica* in mice and this potential will be tested in larger stock animals.

Biography
Narin Changklungmoa has completed his PhD from Mahidol University, Thailand. He is the Lecturer Biomedical Sciences, Faculty of Allied Health Sciences, Burapha University, Chonburi, Thailand. He has published more than 20 papers in reputed journals.

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