

# ***The Fourth ASEAN Congress of Tropical Medicine and Parasitology***

*Tropical Infectious Diseases and  
Vectors in a Vibrant and  
Ever-changing Environment*

*2 - 4 June 2010  
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# Poster Listing

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- P02 Patterns of cytokines in disease progression of chikungunya fever patients  
Edward K. S. Ong (Singapore)
- P03 Seroepidemiology of Dengue, Chikungunya and Rabies viruses at several outdoor breeding facilities of nonhuman primates in Indonesia  
Rachmitasari Noviana (Indonesia)
- P04 The serosurveillance of TORCH among pregnant women in Albania  
Alma Drishti (Albania)
- P05 Tsunami in Sri Lanka: Risk of post-tsunami infectious disease outbreaks?  
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- P06 The early stage of pandemic influenza A(H1N1) at the Philippine General Hospital : A University Hospital experience  
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- P07 Rapid development and validation of a one-step Real-Time RT-PCR assay for detection of the new pandemic swine H1N1 2009 virus and quantification of viral load in patient samples  
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- P08 Mollusks of Phang-Ng Province, southern Thailand after the Indian Ocean tsunami  
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- P11 No more needles! - the use of saliva for early dengue diagnosis and epidemiological studies  
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- P12 Evaluation of a rapid assay for the detection of dengue nonstructural protein 1 (NS1)  
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## POSTER LISTING

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**P41 Measuring the amount of *Evodia* to develop a mosquito free room**

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Lymphatic filariasis, also known as elephantiasis, remains a serious problem in West Java Province of Indonesia. Filaria Control Program conducted mass annual treatment of single dose Diethylcarbamazine (DEC) in endemic areas. *Wuchereria bancrofti* is the major agent of filariasis in this area and *Culex quinquefasciatus* is the main vector. Individuals were also encouraged to actively participate in controlling the mosquito vector. Previous studies indicated that aside from geranium, zodia (*Evodia suaveolens* Scheff) plants, can also be used as a mosquito repellent. This study aimed to calculate the minimum *Evodia suaveolens* leaves required for preventing *Culex* mosquito from entering a room. This research was an experimental study. To conduct the study, four major steps had been arranged i.e. (1) Breeding of *Cx. quinquefasciatus* mosquitoes as research object (2) Collecting *Evodia suaveolens* as research material; (3) Preparing rabbits as mosquito attractants; (4) Assessing the dosage needed for a meter cubic room. Data were analyzed by correlation analysis. Result shows that it needs at least 42 leaves of adult *Evodia suaveolens* per m<sup>3</sup> room size to make a *Culex* free room.

**P42 Larvicidal, pupicidal and smoke repellent properties of botanicals on malarial vector, *Anopheles stephensi* Liston**

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Mosquitoes are the most important group of insects in terms of public health significance. Despite many attempts to successfully eradicate them, they still co-exist with man and animals and transmit dreaded diseases like malaria, filariasis and dengue etc. Chemical insecticides to control mosquitoes were favoured so far. But they are non-selective and harmful to human beings and other beneficial organisms. Hence, this study aims to evaluate the larvicidal, pupicidal and smoke repellent toxicity effect of *Andrographis paniculata*, *Cassia occidentalis* and *Euphorbia hirta* on malarial vector, *Anopheles stephensi*. Methanolic extracts of plants showed considerable toxicity against 4th instars larvae and pupae of *An. stephensi*. Among the plant extracts *A. paniculata* had higher toxicity. Lethal dose concentrations (LC 50 and LC 90) were also calculated on larval and pupal stages. Field trials were conducted at the breeding sites of the *An. stephensi* and the percentage reduction of larval population was observed after 24, 48, 72 hours of treatment. The mortality of mosquitoes was due to the presence of plant compounds, anthraquinones and their derivatives, emodin glycosides, deoxydidehydroandrographolide (*A. paniculata*) and flavonol glycosides afzelin, quercitrin, and myricitrin (*E. hirta*). Smoke toxicity study was also conducted to test the efficacy of smoke from the plant powders and it has been noted that the smoke exposed adult mosquitoes laid smaller number of eggs and progeny production was also affected.