

SPECIAL REPORT*

HEALTH RESEARCH IN THE FACULTY OF TROPICAL MEDICINE, MAHIDOL UNIVERSITY, BANGKOK, THAILAND

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INTRODUCTION

The Faculty of Tropical Medicine, established by the Thai Government in March 1960, is one of twenty faculties and seven Institutes within Mahidol University. The Faculty consists of 11 departments, namely (1) Clinical Tropical Medicine and the Hospital for Tropical Diseases; (2) Helminthology; (3) Medical Entomology; (4) Microbiology and Immunology; (5) Protozoology; (6) Tropical Hygiene; (7) Tropical Medicine; (8) Tropical Nutrition and Food Science; (9) Tropical Pathology; (10), Tropical Pediatrics; (11) Tropical Radioisotopes.

The entire staff is Thai; most are government officials, with many research fellows.

The Faculty of Tropical Medicine joined the SEAMEO-TROPMED Project in 1967, and since then it has been designated as TROPMED/Thailand, with its specialized focus for regional work being designated in the field of "General and Clinical Tropical Medicine and Tropical Pediatrics". There are eight regional post-graduate teaching courses being conducted under the expertise and responsibility of TROPMED/Thailand, ie DTM&H, 6 months; MSc Clinical Tropical Medicine, 12 months; MSc Clinical Tropical Medicine (Tropical Pediatrics), 12 months; MSc Tropical Medicine, 2 years; PhD Tropical Medicine, 3 years; PhD Clinical Tropical Medicine, 3 years; MPH Urban Health, 10 months; MSc Medical Epidemiology, 12 months (the last 2 courses are conducted mainly at the Faculty of Public Health).

RESEARCH AND DEVELOPMENT

Current research programs being conducted in various departments and in field stations include the following:

1. Epidemiology of malaria in East Thailand along the Thai-Cambodia border, and of liver fluke infection in Northeast Thailand.

2. Studies on malaria with special reference to clinical studies and clinical drug trials on patients in provincial hospitals in East Thailand and chemotherapy in drug-resistant malaria.

3. Immunology of malaria: sero-diagnosis in the field using monoclonal antibodies for improvement in diagnostic speed and precision and research towards malaria vaccine trials.

4. A pilot project for control of liver fluke infection in Khon Kaen Province of Northeast Thailand by mass chemotherapy, sanitation improvement and health education, especially through the primary health care system.

5. Health and disease in connection with dam construction in Northeast and in Southern Thailand, with special emphasis on the surveillance of Schistosomiasis mekongi and other organisms.

6. Mosquito genetics, using chromosome and isoenzyme techniques, leading to the control of mosquito-borne diseases, including malaria and Japanese encephalitis.

7. Spectrum of insecticide susceptibilities among malaria and filarial mosquito vector species.

8. Studies on biological agents in the control

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of *Anopheles* mosquito vectors of malaria and *Mansonia* vectors of filariasis.

9. Further studies on vector snails of *Schistosoma mekongi* and *S. japonicum* infections in the field as well as in the laboratory: snail biology, transmission dynamics and molluscicides.

10. Studies on nutritional diseases and malnutrition aimed at solving these problems and promotion of better nutrition of mothers and children at the village level and among vegetarians.

11. The new Clinical Tropical Pharmacology Unit has been established in order to study (1) the pharmacokinetics of antimalarial drugs (drug

absorption, bioavailability and volume distribution in the host, drug elimination and clearance, drug metabolism, etc); (2) pharmacodynamics (therapeutic responses of human hosts); (3) drug interactions (synergism, antagonism); and (4) adverse effects on man.

12. The embryonic Environmental Health Unit has been initiated with the plan to conduct research on (1) water and air pollution; (2) waste management; (3) food safety; (4) disasters; (5) chemical safety; and (6) the establishment of a data base on environmental projects in Thailand.