รายงานประจำปี 2547
Annual Report 2004

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คำนำ

ในขวบปีที่ผ่านมาได้มีการเปลี่ยนแปลงหลายอย่างในสถานการณ์ภัยคุกคามด้านการแพทย์และสาธารณสุขของโลก เหตุการณ์โรคอุบัติใหม่เช่นโรคไข้หวัดนกในภูมิภาคอาเซียได้ส่งผลกระทบอย่างใหญ่หลวงในระดับภูมิภาค และระดับโลก ทั้งในด้านเศรษฐกิจและสังคมและการเมืองระหว่างประเทศ ก่อให้เกิดความตระหนักแก่ประชาคมโลกถึงความจำเป็นที่จะต้องร่วมมือกันเพื่อสกัดกั้นภัยคุกคามจากโรคติดต่อทั้งที่อุบัติใหม่หรืออุบัติซ้ำก็ตามมามากมายหลายชนิด นอกจากนั้น มหาภัยคลื่นยักษ์สึนามิที่เกิดจากแผ่นดินไหวที่เกาะสุมาตราก็ได้เน้นย้ำให้เห็นความเปราะบางของระบบการบริหารจัดการยามมีวิบัติภัยของประเทศต่างๆในภูมิภาคนี้และความจำเป็นที่จะต้องมีระบบการเฝ้าระวังเตือนภัยและตอบสนองอย่างทันท่วงทีกับภัยธรรมชาติเช่นนี้

สถาบันวิจัยวิทยาศาสตร์การแพทย์ทหาร กรมแพทย์ทหารบก เป็นหน่วยงานที่ได้มีบทบาทอันสำคัญยิ่งในการตอบสนองต่อภัยคุกคามต่อสุขภาพของทหารไทยเสมอมา ความร่วมมือกันระหว่างกองทัพบกไทยและสหรัฐอเมริกาได้ก่อให้เกิดผลิตผลอันมีประโยชน์นานัปการต่อเพื่อนทหารในกองทัพของทั้งสองประเทศและต่อวงการสาธารณสุขของโลกทั้งในอดีตและแม้ในปัจจุบัน ผลงานวิจัยต่างๆ ในหนังสือเล่มนี้เป็นเครื่องยืนยันเป็นอย่างดีถึงพันธกรณีดังกล่าวของเราและเป็นประดุจเครื่องรับประกันต่ออนาคตว่าเราจะยืนหยัดเคียงคู่กันเพื่อสร้างสรรค์องค์ความรู้หรือผลิตผลอันจะบังเกิดประโยชน์ต่อเพื่อนมนุษย์ต่อไปอีกนานเท่านาน ข้าพเจ้าหวังว่าหนังสือเล่มนี้ คงจะเป็นประโยชน์ต่อเพื่อนนักวิจัยทางวิทยาศาสตร์การแพทย์ทั้งในประเทศไทยและทั่วโลกตามควร

พลตรี

(สืบพงษ์ สังขะรมย์)

ผอ.สวพท.พบ.

Foreword

There has been many changes in the global health threat scenario during the past year. The H5N1 avian flu virus has caused an emerging disease threat in the Asian region with global repercussions on the socio-economic and political fronts. The global community has thus been never more aware of the need to co-operate to counter the many emerging and re-emerging infectious disease threats. Moreover the tsunami tragedy from the Sumatra quake affecting south Asia and southeast Asia has emphasized the fragility of the disaster management capability in this region and has underlined the need to establish a prompt warning and response system for this and other natural disasters.

AFRIMS has always played an important role in countering health threats to Thai soldiers. The US Army-Royal Thai Army collaboration has resulted in numerous fine products past and present benefiting not only the soldiers of both countries but also the global community. The research findings in this book are testaments to our past commitments and are assurances for the future. We will continue to cherish and carry on our legacy of mutually fruitful collaboration in search of knowledge and to create products that will benefit humanity. May this book prove to be useful to our fellow scientists both in Thailand and around the world.

MG

(Suebpong Sangkharomya)
Director General AFRIMS

Foreword

Unfortunately, the year closed with a massive regional tragedy, the Tsunami. This disaster emphasized the interdependence of countries and peoples throughout the world and the need for continuous communications and ongoing cooperation for disaster response. From the beginning, Armed Forces Research Institute of Medical Sciences (AFRIMS) Thai and US staff have been participating in the Tsunami relief efforts as a small part of the larger global relief effort for the region.

The past year has also seen further increases in awareness and interest worldwide in new and re-emerging infectious diseases as well as diseases of the developing world. Concern about avian influenza and other diseases has led to greater recognition of the importance of regional and worldwide disease surveillance and coordinated outbreak responses. AFRIMS participates in regional surveillance efforts on many of these diseases.

AFRIMS continues to work in Thailand and Southeast Asia on many of the diseases of global importance including dengue, malaria, diarrhea, human immunodeficiency virus (HIV), and scrub typhus. In collaboration with the Faculty of Tropical Medicine at Mahidol University, AFRIMS recently completed a trial of a new drug for the radical cure of malaria caused by *Plasmodium vivax, Plasmodium vivax* is an increasingly important cause of malaria in Thailand. AFRIMS and Phramongkutklao Medical Center (PMK) completed the first trial of a new dengue vaccine in children and infants in Bangkok. The encouraging results from this initial study may lead to expanded testing of this vaccine in the near future. The number of cases of dengue and dengue hemorrhagic fever has continued to rise in Thailand and the region. AFRIMS received significant new support this year from the National Institute of Allergy and Infectious Disease for the evaluation of candidate vaccines for prevention of shigellosis, a significant cause of childhood morbidity throughout the developing world. AFRIMS continues to participate along with many partners in the world's largest efficacy trial of an HIV vaccine being conducted by the Ministry of Public Health. In conjunction with PMK and the Center of Excellence for Disaster Management and Humanitarian Assistance, AFRIMS has participated in a series of workshops for regional militaries on HIV/AIDS conducted in Bangkok, Hanoi, and Pune. In addition to these activities, AFRIMS continues basic research and epidemiologic studies to better understand these and other diseases.

CARL J. MASON
Colonel, Medical Corps
Commanding, USAMC-AFRIMS

ผังการจัดของสถาบันวิจัยวิทยาศาสตร์การแพทย์ทหาร กรมแพทย์ทหารบก

สารบัญ

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