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**Annual Review 2010 - 2011** 



Wisdom of the Land



Anniversary

Faculty of Tropical Medicine, Mahidol University

## Annual Review 2010 - 2011





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Cover: Sandfly - Voctor of Leishmaniasis Photo by: Yuthana Samung, Department of Medical Entomology



Although recent years have seen many advances in medicine, there are still several outstanding obstacles to overcome. Indeed, it seems every breakthrough is followed by more unanswered questions and a demand for greater innovation. Tropical medicine is no exception to this. Currently, 40% of the world's population is living in tropical regions of the world, a percentage that is only predicted to increase over the next several decades. Because of this, there is a growing need to control diseases endemic to these regions, by developing and distributing efficient vaccines, and promoting sustainable community health. HIV/AIDS remains a top concern, with an estimated 500,000 people thought to be living with the disease, just here in Thailand. The guest to eradicate malaria also continues. Although we have enjoyed a recent decrease in malaria burden, the increasing drug-resistance of the disease is becoming a concern. Ecological change may soon lead to the emergence of several neglected tropical diseases, such as dengue or lymphatic filariasis, in previously unaffected areas, if we do not develop appropriate prevention strategies. To exacerbate the existing challenges, recent years have had their share of political unrest, economic problems, and natural disasters all around the globe. Because of all these factors, it can only be through a multidisciplinary, globalized approach, that we can find a resolution to today's health issues.

For over 50 years, the Faculty of Tropical Medicine, Mahidol University, has been at the forefront of the battle against tropical diseases. More than ever, we continue to make advances in clinical and laboratory research. We are dedicated to educating and training the tropical medicine researchers, policy-makers, and clinicians of tomorrow. We constantly work to provide better healthcare and medical services to Thailand and communities in lessdeveloped regions of Southeast Asia. We have made many improvements to our facilities, and thus our capacity to carry out all of the aforementioned tasks, in the form of renovations, purchases of top-of-the-line equipment, and the construction of a new hospital building. This is how we have earned and maintain our reputation as "Asia's Leader in Tropical Medicine."

The Annual Review 2010 is an overview of all the activities of the Faculty of Tropical Medicine for the calendar years 2009-10. The Faculty of Tropical Medicine is also the SEAMEO TROPMED Regional Center for Tropical Medicine (TROPMED Thailand) and the WHO Collaborating Centre for



Clinical Management of Malaria. These roles are integrated into the Faculty's overall activities. In honor of the 50th Anniversary of the Faculty, some of the most notable accomplishments of each department in the last 50 years are reported.

I would like to thank all of the staff members, collaborators, and supporters who have assisted and supported the Faculty of Tropical Medicine throughout 2009-2010, and throughout its 50-year journey, becoming today a global center of excellence in the tropical diseases. I am pleased to present to you the Annual Review 2010, which is a testimony to the Faculty's achievements.

Assoc. Prof. Pratap Singhasivanon Dean

Faculty of Tropical Medicine, Mahidol University



#### Research

For 50 years, the Faculty of Tropical Medicine has been a leader in cutting-edge, scientific innovation, aiming constantly to improve the quality of life for people living in Thailand and other tropical regions around the globe. We have been an integral part of many scientific breakthroughs and milestones, such as the discovery of numerous parasitic species, new and more effective malaria treatments, etc. We were part of the first trials of an HIV vaccine that had a proven degree of efficacy. We have developed a reputation for developing innovative diagnostic procedures, and are experts in tropical vector-borne diseases, such as malaria and dengue. While our 50th Anniversary may have come and gone, we continuously strive for greater success in the 50 years ahead. Our current research projects include laboratory research, clinical trials, epidemiological and demographic field studies, vaccine trials, and sustainable development programs. We will continue to be a pioneer in vaccine trials, with plans for more HIV vaccine trials and malaria transmission-blocking vaccine trials.

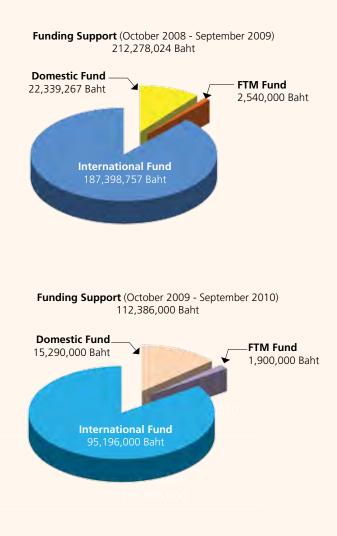
We have five Centers of Excellence, which are leaders in the region:

- BIOPHICS Biomedical and Public Health Informatics
- FBPZ Center of Excellence for Food-Borne Parasitic Zoonoses
- SEACRN Southeast Asia Influenza Clinical Research Network
- TDC Tropmed Dengue Diagnostic Centre
- VTC Vaccine Trial Centre



The Faculty, as a leading institute in Asia for research on malaria, dengue, tropical parasites, and other tropical diseases, continues to encourage, support, and facilitate research in tropical medicine to help further public health policy and global disease control. In 2009-2010, we published 349 international scientific papers, with 95.83% (in 2009), and 90.05% (in 2010), appearing in ISI Web of Science databases. (Between October 2008-September 2010, a total of 312 different research projects were conducted, 108 of which began during that time. Faculty members also presented 165 papers at international conferences and 14 at Thai conferences.

We promote and support the development of researchers through Faculty grants, publication rewards, cost-of-publication support funds, and travel awards. In 2009 and 2010, the Faculty granted a total of 324,664,024 Baht in funding to encourage the advancement and maintenance of our research capacity (October 2008 - September 2010).





The Faculty has a well-established and extremely active Ethics Committee (EC), which has been recognized by SIDCER/FERCAP as attaining both international and local standards for ethical review. The TropMed EC has registered Federal Wide Assurance (FWA) with the Office for Human Research Protection (OHRP). Our FWA number is 00002882. Our Institutional Review Board/Independent Ethics Committee (IRB/IEC) number is IRB 00005259. Our IRB Organization number (IORG) is IORG 0002101.

#### Awards

In 2009, three outstanding awards given to staff of the Faculty of Tropical Medicine—(1) Asst. Prof. Pongrama Ramasoota was given the 2009 National Inventor Award, by the National Research Council of Thailand, for the invention of "Indoor & outdoor bio-aerosol collector and air-filter testing equipment"; (2) Mrs. Pornpimon Adams was given the 2008/2009 SEAMEO Service Award for her outstanding work as Head of the Faculty's Office of Research Services; (3) Prof. Usa Thisyakorn received the 2009 Outstanding Asian Pediatrician Award, recognizing her outstanding contribution to the field of tropical pediatrics.







ngratulate the Prince Mahidol Award tolas J Wh e and fesse Key of bical dicine, idol ers to re

In 2010, several more awards were given to staff of the Faculty. Mr. Sethavudh Kaewviset was given the 2009/2010 SEAMEO Service Award for his work in the International Relations Unit. Asst. Prof. Pongrama Ramasoota was the recipient of a "Good" Level Award for his research entitled "Production of antigens and antibodies specific to tropical diseases by protein expression on phage surface". Professor Nicholas John White received the 2010 Canada Gairdner Global Health Award for his definitive clinical studies on the effectiveness of artemisinin in the treatment of malaria, and for elucidating the basis for the use of ACT to prevent resistance. Both Assoc. Prof. Pratap Singhasiwanon and Asst. Prof. Pongrama Ramasoota were given Honorary Appointments to the position of Professor at Osaka University, Japan. Assoc. Prof. Pratap Singhasivanon was also awarded 2010 Outstanding Preventive Medicine Physician of the Year. Finally, Professor Nicholas John White was awarded the highly prestigious 2010 Prince Mahidol Award for medicine.



### Education

In 2009-2010, the Faculty, through the Bangkok School of Tropical Medicine, had a total of 163 new students in the 6 regular international postgraduate programs:





Program	Number of New Students (in 2009)	Number of New Students (in 2010)
Diploma in Tropical Medicine and Hygiene (DTM&H)	21	42
Master of Clinical Tropical Medicine	6	9
Master of Clinical Tropical Medicine	5	5
in Tropical Pediatrics		
Master of Science in Tropical Medicine	13	24
Doctor of Philosophy in Tropical Medicine	16	20
Doctor of Philosophy in Clinical Tropical Medicine	2	-
Total	63	100



# Executive Summary

#### Collaborations

The Faculty of Tropical Medicine established 4 new international collaborative relationships in 2009 and 3 in 2010, in addition to the 10 formal Memoranda of Understanding/ Agreements already in place. These relationships exist with individuals, institutes, and other private- or public-sector organizations in 8 different countries.







Joint International Tropical Medicine Meeting



Every year, the Faculty of Tropical Medicine holds the Joint International Tropical Medicine Meeting. In 2009, the Joint International Tropical Medicine Meeting (JITMM 2009) and the 6th Seminar on Food- and Water-borne Parasite Zoonoses (FBPZ6) Meeting were held 2-4 December 2009, at the Centara Grand & Bangkok Convention Centre at CentralWorld, Bangkok, Thailand. The 2009 theme was "Tropical Health in a Time of Economic Crisis" and featured our JITMM 2009 Keynote speaker, Prof. Anne Mills, who spoke about "Tropical Health at a Time of Economic Crisis: How can Economics Help?". Prof. David A. Warrell spoke about "Foundation of the Mahidol University-Oxford Collaboration in Tropical Medicine. A Voyage of Discovery", and Prof. Jeremy Farrar spoke about "Globalization and Infectious Diseases: a Threat and an Opportunity for Collaborative Clinical Science". The FBPZ6 keynote speaker was Prof. Jong Yil Chai, who spoke about "Foodborne Helminthiases in Southeast Asia".

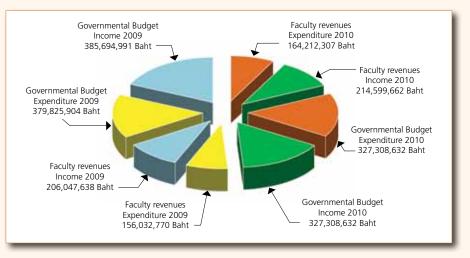


We held the 2010 Meeting 1-3 December 2010 at the Centara Grand & Bangkok Convention Centre at CentralWorld, Bangkok, Thailand. This time, the theme was "Tropical Diseases: Future Threats and New Paradigms", and featured speaker Prof. Gavin Screaton, who spoke about "Dengue: a paradigm for immunopathology in infectious disease". The combined two years brought a total of 1,603 registered participants from 32 different countries. For more information about the Joint International Tropical Medicine Meeting series, please visit the JITMM website at http:// www.jitmm.com.



#### Finance

During the years 2009-2010, the total income of the Faculty was 591,742,629 Baht (2009) and 541,908,294 Baht (2010). Of that total, 385,694,991 Baht (2009) and 327,308,632 Baht (2010) were provided from the government budget, and 206,047,638 Baht (2009) and 214,599,662 Baht (2010) from Faculty revenues.



#### Personnel

In 2009-2010, the Faculty had 109 academic staff and 682 support staff, for a total of 791 staff members. Over 64.22% of our academic and research staff have a Ph.D. degree, while another 11.01% have a Master's Degree or comparable qualifications. Forty-five staff members retired during the twoyear period.

#### Number of Staff Members in 2011

Position	Number of Staff Members in 2011	
Officer	132	
University Staff	341	
Officers changed into University Staff	107	
Bursary University Staff	114	
Part of University Staff	120	
Employee	318	
<ul> <li>Permanent employees, salaries paid</li> </ul>	72	
from normal expenditure budget		
<ul> <li>Permanent employees, salaries paid</li> </ul>	187	
from revenues		
Casual workers	59	
Total	791	



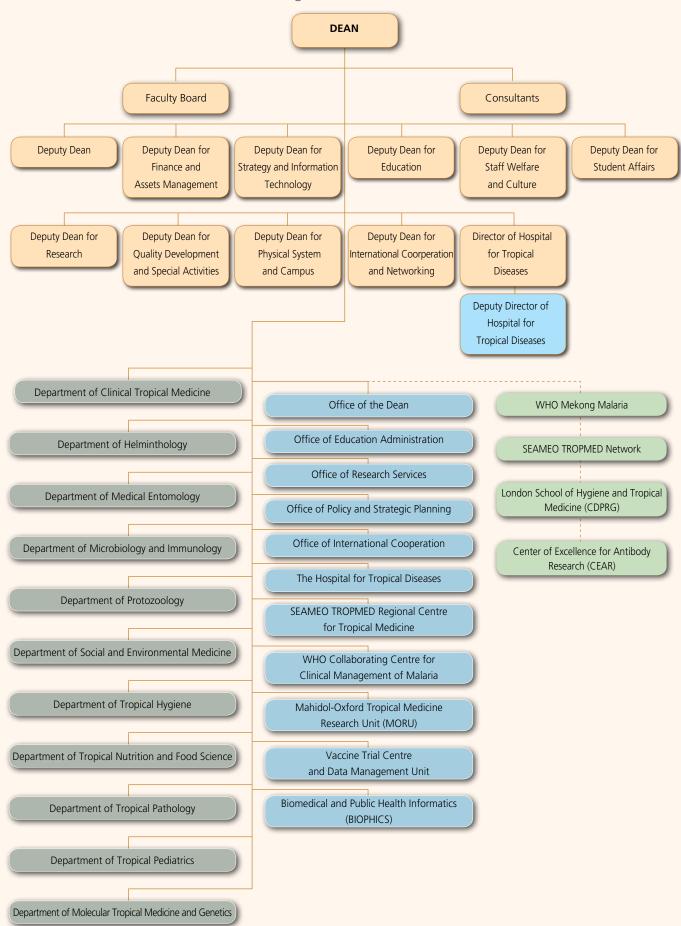
#### Staff Development

A total of 12 staff members continued to pursue higher education, with 5 studying overseas and 7 in Thailand. 10 staff members attended domestic training sessions, while 39 attended international ones. In addition, 131 staff members participated in international conferences, and 682 in domestic ones.

### Infrastructure Improvements

After commencing construction in 2008, progress continues on the new building, "Asia's Center of Excellence for Tropical Diseases." Upon completion, it will serve as a new Center of Excellence for clinical research and a provider of medical care and services for patients with tropical diseases.

#### Organization Chart







Assoc. Prof. Pratap Singhasivanon Dean and Director of SEAMEO TROPMED Thailand



Assoc.Prof. Jitra Waikagul Deputy Dean



Asst. Prof. Chotechuang Panasoponkul Deputy Dean for Student Affairs



Assoc. Prof. Porntip Petmitr Deputy Dean for Finance and Assets Management



Asst. Prof. Pongrama Ramasoota Deputy Dean for Research



Prof. Sasithon Pukrittayakamee Deputy Dean for International Coorperation and Networking



Deputy Dean for Staff Welfare and Culture



Assoc. Prof. Waranya Wongwit Deputy Dean for Education



Assoc. Prof. Wichit Rojekittikhun Asst. Prof. Kasinee Buchachart Deputy Dean for Strategy and Information Technology



Asst. Prof. Udomsak Silachamroon Director of Hospital for Tropical Diseases



Dr. Sarunya Kaewprasert Deputy Dean for Policy and Quality Development and Special Activities



Mr. Chanathep Pojjaroen-anant Deputy Dean for Physical System and Campus

Ms. Rachatawan Chiabchalard Dr. Suwalee Worakhunpiset Dr. Santi Maneewatchararangsri Assoc. Prof. Kesinee Chotivanich Asst. Prof. Talabporn Harnroongroj Assoc. Prof. Parnpen Viriyavejakul

#### Faculty Senate (2009 - 2010)

Asst. Prof. Voranuch L. Wangsuphachart Asst. Prof. Yuvadee Mahakunkijcharoen Assoc. Prof. Malinee (Anantaphruti) Thairungroj Dr. Natthanej Luplertlop Assoc. Prof. Kesinee Chotivanich Dr. Sungsit Sungvornyothin Dr. Weerawan Hattasingh Dr. Nitaya Indrawattana Dr. Teera Kusolsuk

## Head of Department/Center/Unit



Prof. Punnee Pitisuttithum Department of Clinical Tropical Medicine & PI VTC



Assoc. Prof. Yaowalark Sukthana Department of Protozoology (Until 31 May 2009)



Asst. Prof. Jaranit Kaewkungwal Department of Tropical Hygiene and DMU



(1 Oct 2006 - 30 Sep 2010)



Assoc. Prof. Chalit Komalamisra Department of Helminthology

Assoc. Prof. Porntip Petmitr

(From 1 Jun 2009 - 30 Sep 2010)

Department of Protozoology

Prof. Songsak Petmitr

Department of Tropical Nutrition & Food

Science from (1 Oct 2002 - 30 Sep 2010),

Department of Molecular Tropical Medicine and Genetics from (1 Oct 2010 - Present)



Assoc. Prof. Chamnarn Apiwathnasorn Department of Medical Entomology



**Miss Rachatawan Chiabchalard** Department of Protozoology (From 1 Oct 2010 - Feb 2011)



Dr. Dumrongkiet Arthan Department of Tropical Nutrition & Food Science from (1 March 2011 - Present)



Department of Tropical Radioisotopes



Assoc. Prof. Manas Chongsa-nguan Department of Microbiology and Immunology



Assoc. Prof. Wijitr Fungladda Department of Social and Environmental Medicine



Assoc. Prof. Emsri Pongponratn Department of Tropical Pathology



Mr. Somkid Nima Secretary of the Faculty

Prof. Kirsana Pengsaa Department of Tropical Pediatrics



Department of Tropical Pediatrics (1 Oct 2010 - Present)

#### Consultants to the Faculty of Tropical Medicine Assoc. Prof. Supranee Changbumrung

Prof. Emeritus Danai Bunnag Prof. Emeritus Tan Chongsuphajaisiddhi Prof. Emeritus Santasiri Sornmani Prof. Emeritus Mukda Trishnananda Prof. Emeritus Prayong Radomyos Prof. Emeritus Chaisin Viravan Assoc. Prof. Mario Riganti Prof. Emeritus Sirivan Vanijjanonta Prof. Emeritus Wanpen Chaicumpa Prof. Emeritus Arunee Sabchareon

Prof. Usa Thisyakorn Prof. Chutima Pramoolsinsap Assoc. Prof. Suvanee Supavej Assoc. Prof. Yupa Rongsriyam Assoc. Prof. Tawee Chotpitayasunondh Assoc. Prof. Vangvarothai Singhasivanon Assoc. Prof. Wipawee Jumpangern Dr. Valaikanya Plasai

Collaborative Activities under MOU

	Duration	Activities
1. University of Innsbruck, Austria	12 May 2002 - Present	Student Exchange
2. Nagasaki University, Japan	1 Nov 1999 - Present	Student Exchange
3. The Wellcome Trust – Mahidol	1980-2020	Staff Exchanging
University, Oxford Tropical Medicine		Joint Research Projects
Research Programme		Research Activities
4. Southeast Asian Ministers of	18 May 1971 - Present	Joint Research Program
Education Organization (SEAMEO)		Staff & Student Exchange
		and Support
5. Asahikawa Medical college, Japan	2008 - 2012	Student Exchange
6. Malaria Consortium	2009 - 2019	Joint Research Program
		Staff Exchange
7. Saprasithiprasong Hospital, Thailand	2009 - 2014	Joint Research Program
		Staff Exchange
8. National Aeronautics and Space	2001 - 2014	Joint Research Program
Administration (NASA)		
9. Worldwide Antimalarial Resistance	2010 - 2015	Joint Research Program
Network WWARN		Staff Exchange
10. University of Leicester, UK	1 April 2002 - Present	Joint Research Program
11. Freie Universitat at Berlin, Germany	30 May 1985 - Present	Joint Research Program
12. The Swiss Tropical Institute, Basel,	3 Jun 1998 - Present	Joint Research Program
Switzerland		
13. University of Shizuoka School of	2005-2010	
Pharmaceutical Science, Japan		
14. Canadian Food Inspection Agency,	3 Sep 1998 - Present	
Government of Canada, Canada		
15. Department of Diseases Control,	December 2009	
Ministry of Public Health, Thailand		
16. Institute de Recherche pour	November 2009 -	Joint Research Program
Development (IRD), France	November 2010	
17. Research Institute for Microbial	April 2010 - March 2015	Joint Research Program
Diseases, University of Osaka, Japan		

Visitors: 92 visitors from 11 countries visited TROPMED Thailand. Among these visitors consist of lecturers, academic staff, medical doctors, medical students, public health personnel, scientists and researchers.

pecial Events



Vice Chancellor Suresh Raj Sharma and Associate Dean Ram Kantha Makaju Shrestha of the Kathmandu School of Medical Sciences visited the Faculty of Tropical Medicine on 22 January 2009





✓ 1<sup>st</sup> Inter-Hospital Conference between the Department of Medicine of Ramathibodi Hospital and the Department of Clinical Tropical Medicine on 21 May 2009.





Elective Programme in Tropical Medicine for Dr. Lucas Karaelias and Dr. Sukhjit Takhar from the University of California San Franciso and Dr. Rais Vohra from the University of California Los Angeles, which consisted of lectures on important tropical diseases, clinical and laboratory diagnosis of tropical diseases, ward rounds, and case presentation, 1 - 12 June 2009.





≯ On "National Inventors' Day," 2 February 2009, Deputy Dean for Research and Innovation Dr. Pongrama Ramasoota received the National Inventor Award 2009 in Medical Sciences from the National Research Council of Thailand (NRCT) with his team, including Mr. Pholsak Piyatat, Miss Pannamthip Pitaksajjakul and Miss Kaewjai Malaithao. The award, presented by HE. Prime Minister Abhisit Vejjajiva, was given for their invention of "Indoor & outdoor bio-aerosol collector and air filter testing equipment". The Award ceremony took place at the Impact Arena at Muang Thong Thani.





Clinical Professor Piyasakol Sakolsatayadorn, President of Mahidol University, chaired the Opening Ceremony for "Mahidol's Academic 2009" at the Salaya Campus of Mahidol University in Nakhon Pathom on 6-7 February 2009.



The Dean of the Faculty of Tropical Medicine, Dr. Pratap Singhasivanon, and Assoc. Prof. Porntep Chantavanich of the Department of Tropical Pediatrics were interviewed by reporters from The Nation, Komchadluek, and Bangkokbiz newspapers, on their dengue vaccine study. Details were provided on the current status of dengue hemorrhagic fever and the development of a dengue vaccine in Ratchaburi Province, 20 February 2009.

pecial Events





✗ The Faculty of Tropical Medicine organized a two-day Training Program on Communicable-Disease Control for 10 WHO Fellows from India, 13 - 14 July 2009



Participants in the UNESCO IKM Attachment Programme for SEAMEO Staff visited the SEAMEO Regional Centre for Tropical Medicine,
 15 July 2009.



2<sup>nd</sup> International Training
 Course on Tropical Pediatrics,
 24 - 28 August 2009





The Department of Medical Entomology and the Thailand Representation of the Institute for Research and Development organized a workship entitled "Landmarks-Based Geometrics Morphometries," which was led by Dr. Jean-Pierre Dujardin, 14 - 16 October 2009.





The Honorable Minister for Education and President of the Southeast Asian Ministers of Education Organization Council, Mr. Jurin Laksanawisit, visited the SEAMEO TROPMED Network at the Faculty of Tropical Medicine, 17 August 2009.



Dean Pratap Singhasivanon and the Vice President of Myanmar Assets in PTT Exploration and Production Public Company Limited, Dr. Suppamas Prachakvej, co-signed a historic Memorandum of Understanding for Year 1 of the "Zawtika Project," which is a sustainable, community-based, rural health and environmental development program in the Union of Myanmar, in close proximity to the PTTEP gas pipeline, 21 August 2009.



✓ Joint International Tropical Medicine Meeting 2009: "Tropical Health in a Time of Economic Crisis" at the Centara Grand in Bangkok, 3 - 4 December 2009.



<sup>44</sup> 6<sup>th</sup> Seminar on Food and Water-borne Parasitic Zoonoses (FBPZ6) at Centara Grand & Bangkok Convention Centre in Bangkok, 2 - 4 December 2009.





✓ From the Special Occasion Lecture Series to celebrate the 50<sup>th</sup> Anniversary of the Faculty of Tropical Medicine. This lecture was on "Antibodies Determine Virulence in Dengue", 8 February 2010.





Also from the 50<sup>th</sup> Anniversary Lecture Series is this lecture entitled "Dengue Vaccines: Can We Accelerate Development, Evaluation and Introduction." The speaker is Dr. Harold S. Margolis, the Director of the Pediatric Dengue Vaccine Initiative at the International Vaccine Institute in Seoul, 2 April 2010.



✓ The lecture "Drivers of Undernutrition in South Asia" by Dr. C G Nicholas Mascie-Taylor from the University of Cambridge Department of Biological Anthropology was also part of the 50<sup>th</sup> Anniversary Lecture Series, 5 April 2010.



✓ "Whole Genome Sequencing for High-Resolution Genotyping of Bacterial Populations," a lecture by Dr. Stephen Bentley from the Wellcome Trust Sanger Institute, was also in 50<sup>th</sup> Anniversary Lecture Series, 7 April 2010.

# Special Events



\* As part of the 50<sup>th</sup> Anniversary Lecture Series, this Special Talk entitled "The Way forward... to be the World's Leading Tropical Medicine Research Institute" was jointly delivered by the President Piyasakol Sakolsatayadorn, Dean Pratap Singhasivanon, and the former deans of the Faculty of Tropical Medicine, 9 April 2010.



Mahidol University. 9 April 2010.

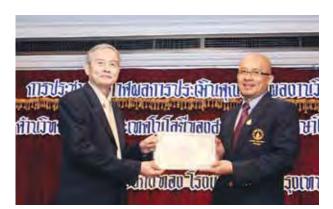
pecial Events







The Faculty of Tropical Medicine hosted the Tod Phapa Maha Kuson charity in the Maegraith Conference Room in the 60<sup>th</sup> Anniversary of His Majesty the King's Accession to the Throne Building, 21 October 2010.



The Faculty of Tropical Medicine received the Level 5 score of "Excellent" among Thai Faculties of Medicine for the year 2009, due to the quality of its research in science and technology, 9 June 2010.



✓ Lunch talk "Proinsulin C-peptide prevents insulin-induced neointima formation by modulation of smooth muscle cell function in human saphenous vein," by Dr. Karen E Porter, 5 April 2010.



# Special Events



✗ JITMM 2010 & IMC 2010, 1-3 December 2010.



Assoc. Prof. Pratap Singhasivanon, the Dean of the Faculty of Tropical Medicine, received the National Award for the Outstanding Preventive Medicine Physician of the Year 2010, for being a person who regularly uses his knowledge and abilities to advance preventive medicine in Thailand. Assoc. Prof. Pratap received the Award from His Excellency Privy Councilor Mr. Kasem Watanachai. The ceremony was organized by the Preventive Medicine Association of Thailand, the Thailand Hospital Administrator Association and the Ministry of Public Health. It was held at the 9th Floor Conference Room of the Chesda Bondindra Building at the Phra Nang Klao Hospital in Nonthaburi, 9 December 2010.



congratulate the Prince Mahidol Award Laureates of 2010, Professor Nicholas J White and Professor Kevin Marsh. The lectures took place on the 8<sup>th</sup> Floor Maegraith Conference Room in the 60<sup>th</sup> Anniversary His Majesty the King Accession to the Throne Building. There were over 100 honorable distinguished guests, including physicians, scientists, nurses, and those who work on treatment and immunology of malaria as well as malaria vaccine development. President of Mahidol University, Clinical Professor Piyasakol Sakolsatayadorn, came to preside over the event, 24 January 2011.

## SEAMEO TROPMED Regional Centre for Tropical Medicine

#### (TROPMED Thailand)

TROPMED Thailand Website: http://www.tm.mahidol.ac.th SEAMEO Website: http://www.seameo.org

SEAMEO TROPMED Network is a regional cooperative network established in 1967 for education, training and research in tropical medicine and public health under the Southeast Asian Ministers of Education Organization (SEAMEO). The mission of SEAMEO TROPMED is to promote health and to prevent or control diseases, thus improving the living conditions of people through relevant programmes and services. The Network aims to develop the capacity of individuals and institutions in delivering quality healthcare. The Network operates through Regional Centres in Indonesia, Malaysia, the Philippines, and the SEAMEO TROPMED Regional Centre for Tropical Medicine in Thailand. The Regional Centres are all affiliated with academic and research institutions, which provide physical facilities, faculty, and technical support staff.

#### **TROPMED** Thailand

The Faculty of Tropical Medicine, Mahidol University, was appointed the TROPMED National Centre for Tropical Medicine in 1967, and was later designated the SEAMEO TROPMED Regional Centre for Tropical Medicine, in 1994. It is now known as "TROPMED Thailand". Its objectives are promoted through 3 major activities: (1) teaching and training, (2) research, and (3) services. The activities of the Faculty of Tropical Medicine and TROPMED Thailand are therefore synonymous.





Assoc. Prof. Pratap Singhasivanon Director

#### **Increased Linkages**

WHO Collaborating Centre: World Health Organization has designated the Faculty of Tropical Medicine as a WHO Collaborating Centre for Environmental Management for Disease Vector Control in Sustainable Development and WHO Collaborating Centre for Clinical Management of Malaria.

#### Linkages

Thailand International Cooperation Agency (TICA) Mahidol - Oxford Research Unit (MORU) World Health Organization (WHO)

- WHO SEARO
- WHO Mekhong Malaria
- World Health Organization Regional Office
- Thailand (WR Thailand)

Pediatrics Dengue Vaccine Initiative (PDVI)

Japan International Coolaboration Agency (JICA) Japan International Cooperation Welfare Service (JICWELS) Rockefeller Foundation

University of Washington Southeast Asia Influenza Clinical Research Network Oxford University ACT Malaria MOU/Agreement between Faculty of Tropical Medicine and Oversea Institutes

### WHO Collaborating Centre for Clinical Management of Malaria Annual Report (Year 2009)

#### Activities.

- Conducting the special lecture "Current management of malaria" in the annual scientific meeting "An update and current practice in infectious diseases" hosted by Infectious Disease Association of Thailand, 20 February 2009.
- Conducting the special lecture "Malaria Treatment and Prophylaxis" in the annual scientific meeting "Trend in Infectious Diseases Pharmacotherapy" hosted by Ministry of Public Health and 4 Faculties of Pharmacies in Thailand (Chiengmai, Khon Kan, Silpakorn, Songlanakarin), Bangkok, 9 April 2009.
- Conducting the special lecture "Clinical Management of Malaria" and "Visit Mosquito Breeding Areas in Jungle" in the Asian Clinical Medicine 2009 hosted by Medical College of Georgia in collaboration with Faculty of Tropical Medicine, Mahidol University, 13 and 16 May 2009.
- Conducting the special lecture "Update on Malaria: Where are we now?" in "Siam Infectious Disease Board Review 2009" for physician fellows in infectious diseases hosted by Siam Pharmaceutical, 30 May 2009.
- Conducting the 2 special malaria training sessions for update on "Malaria Chemotherapy Research" for African doctors/ medical officers in the training course "Management of Malaria Field Operations 2009), hosted by Ministry of Public Health, Thailand, 17 June and 29 July 2009.





**Prof. Polrat Wilairatana** Director WHO CC for Clinical Management of Malaria

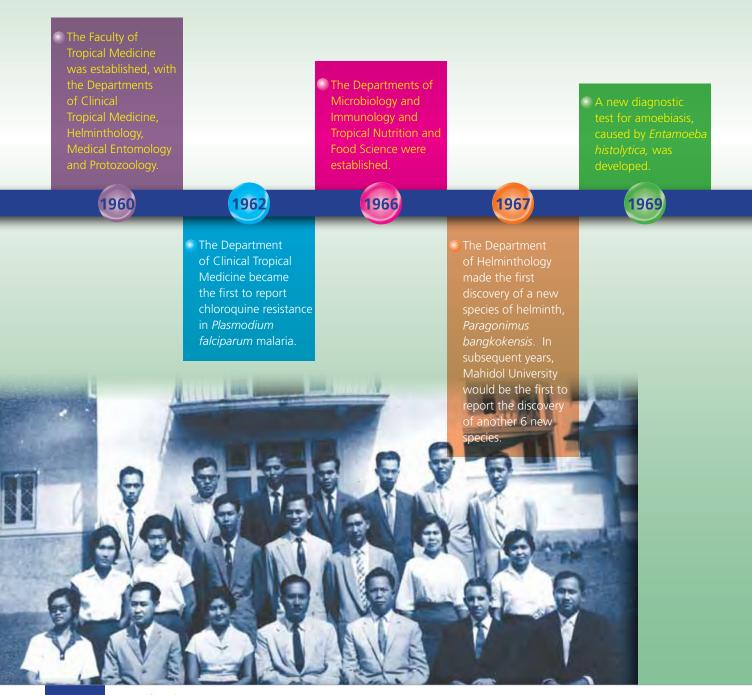
- Conducting "the 7<sup>th</sup> WHO International Training Course in Management of Malaria" for 33 doctors from 11 countries (Cambodia, Indonesia, Japan, Laos, Myanmar, Pakistan, Philippines, Sri Lanka, Sudan, Thailand, and USA), Bangkok, 31 August-4 September 2009. Four doctors from Japan have been working in Cameroon, Congo, Ivory Coast, and Mali)
- Conducting the special malaria lecture for management of malaria at international borders for 24 doctors/ medical officers, funded by Rockefeller Foundation in collaboration with SEAMEO-TROPMED/Network, 11 September 2008.
- Sending a centre staff to participate "the WHO/SEARO Regional Consultation on Integrated Approach to Malaria Control", Colombo, Sri Lanka, 26-29 October 2009.
- Conducting the First Regional Course on Case Management of Malaria, The Blue Nile National Institute for Communicable Diseases in collaboration with WHO/EMRO, University of Gezira, Sudan, 8-15 November 2009.
- Conducting the special lecture "Current Management of Tropical Diseases (Malaria, Rickettsiosis, Leptosipirosis and Melioidosis) in Thailand" in the annual scientific meeting "Pharmacotherapy of Infectious Diseases" hosted by Faculty of Pharmacy, Chulalongkorn University, 19 November 2009.
- Member of Board of National Policy and Guideline of Malaria Treatment in Thailand, Ministry of Public Health, Thailand during 2009.
- Published "Guidelines for the Care of Malaria Patients" for nurses with financial support by WHO/SEARO.
- Wrote a book chapter "Cerebral malaria". In: Lisak RP, Truong DD, Carroll W, Bhidayasiri R (eds). International Neurology: A Clinical Approach. Blackwell, (in press).

50 Years of Accomplishments



23

The following timeline illustrates the highlights of 50 years' research activities in tropical medicine. It would be nearly impossible to list every achievement of the Faculty of Tropical Medicine since 1960. Therefore, we provide these select highlights to honor all the researchers and accomplishments that have contributed to the Faculty's reputation for excellence.





The Tropical Hygiene
 Section was promoted
 to become the
 Department of
 Tropical Hygiene.
 Until this year, it
 had existed as a
 section within the
 Department of Clinical
 Tropical Medicine.

1974

The Department of Protozoology produced several publications of in vitro and in vivo studies of *Plasmodium falciparum* and *Trichomonas vaginalis* 

197<mark>9</mark>

1970

- Mahidol University became the first to report the species *Thelazia callipaeda* using humans as a host. To date, the Department of Helminthology has been the first to report such behaviors for a total of 9 species of helminthes.
- Using albino rats as a test subject, various studies about protein deficiencies and their various physiological effects were conducted by the Department of Tropical Nutrition and Food Science.
- The Applied Malacology Center was established, which investigates medically important snails and maintains the Mollusk Museum.

The Department of Helminthology held its first international training course for medical personnel from Southeast Asia, Africa, and South America. Topics included "Integrated Family Planning, Nutrition, and Parasite Control" and other general information about soil-transmitted helminthes. These courses were held every year for nearly three decades.

1977

The results of comparative clinical trials of four different anti-giardiasis medications were published.

1980

COUR

25



The Department of Tropical Pathology was established as its own department. Up until this year, it had been a Unit within the Department of Tropical Medicine.

Ceftazidime became the standard treatment for melioidosis, following Mahidol's report that it could reduce mortality by 50% compared with previously accepted therapies.

1989

- Discovery of a unique specific protein, and subsequent monoclonal antibody production, useful for diagnosis of gnathostomiasis, has led to Mahidol University becoming a leading consultant for the disease.
- The first publication by the Department investigating *Toxoplasma gondii* in pregnant women and their children was produced. More recent studies investigate this pathogen in HIV patients.

1991

1988

Developed a dotblotted ELISA test for the detection of *Salmonella* species, applicable for both patient urine samples and food products.

To better understand the mechanism of immunity to malaria, research was done on human antibodies that protect against malaria. Results showed that monocytes must be present to cooperate with the antibodies in order to be effective.

1990

#### A third unit within the Department of Tropical Pathology, the Electron Microscopy Unit, was established when Japan International Cooperation Agency donated an electron microscope.

1992



#### First publication of using indigenous Thai plants as a replacement for an insecticide for vector control

The Malaria Research Station at Baan Huay Moung in Ratchaburi was built to serve as a site for field studies, to provide healthcare services, and to act as a learning station for disease diagnosis, treatment and protection. Preliminary tests of an oral vaccine developed for *Vibrio cholerae*. Later addition of boosters to the vaccine formula improved its efficacy

 The Fund for A Population Free of Tropical Disease was established.
 The HRH Princess Kalayaniwatana Kromaluang
 Rajanagarindra acted as the Fund President.

1998

Comparative trials of two different rabies vaccines indicated that the newer vaccine, the human diploid cell rabies vaccine (HDCV), was equally as effective as the accepted standard treatment, but a better safety profile.

A chromosomal analysis of the liver fluke *Opisthorchis viverrini*, which is the only known species of parasite definitively known to be associated with cancer in Thailand, was conducted to investigate its phylogeny. Studies investigating obesity in Thailand, including antioxidant enzyme studies, blood pressure studies, and lipid profiling, were conducted

 In order to help control malaria in a community setting, the Department of Social & Environmental Medicine started investigating the effectiveness of repellent-impregnated bed nets.

2000

Inaugural JII MM

1994

Various publications investigating the nutritional status and chronic disease risk factors of street sweepers in Bangkok

1997

The Japanese Government, in collaboration with Mahidol University, founded the Asian Center for International Parasite Control (ACIPAC) at the Faculty of Tropical Medicine.

1999

- The TROPMED GIS Unit was established through support from European Union.
- **1999-2003** Phase III efficacy trial of rgp120 B/E HIV Vaccine.
- Training workshops began teaching various laboratory techniques for diagnosing protozoarelated infections.
   This first workshop focused on protozoa infections commonly seen in AIDS patients in Thailand.

Owith the support from the 1<sup>st</sup> Army Area, the permanent building of the research station at Suan Pheung District was built under the HRH given name as Rajanagarindra Tropical Disease

International Centr (RTIC)

#### 2003-2009

Trial of a priming and boosting regimen combining two different HIV vaccines: ALVAC-HIV (vCP 1521) from Sanofi Pasteur and AIDSVAX© B/E from VaxGen Inc. Trial demonstrated a degree of efficacy.

 First published ultrastructural study of pathogenesis of severe malaria in human organs, investigating a *P. falciparum* infection of the human brain.

2003

A comprehensive, comparative test of 38 different Thai herbal extracts was done to test their efficacy as an insecticide. This has led to the distribution of low-cost mosquito repellents to high-risk malaria regions.

 Established the now standard treatment regimen for melioidosis, a combination of doxycycline and cotrimoxazole.

2005

--- NO

An immunological study of the effects of the cholera vaccine was published demonstrating inherent differences in the immune response between people who live in choleraendemic regions and those who do not.

2006

 Developed an immunostaining test, capable of detecting early-stage cytomegalovirus infection.

2001

 The Department of Tropical Pathology documented a unique pattern occurring between two different forms of malaria: namely that patient treatment for *Plasmodium vivax* sometimes led to a subsequent infection with *P. falciparum*. The Department of Social and Environmental Medicine was identified as a WHO Collaborating Centre for Environmental Management and Disease Vector Control in Sustainable Development.

2004

• Following the disastrous tsunami of December 2004, a study of its effect on insect vector populations was conducted. Evidence of a population boom of *Anopheles epiroticus*, a potential malaria vector, prompted action to control the immature population with great success.

#### 2006-2008

An epidemiological study of dengue infection in children was carried out. The background information of nearly 3000 children is being used for dengue vaccine trials. The book Obesity: Nutritional and Biological Changes was published, which reviewed all the findings the Department of Tropical Nutrition and Food Science made over the years regarding obesity studies

2007

- Time Magazine listed the HIV vaccine regimen of ALVAC-HIV and AIDSVAX© as number two on the list of top ten medical breakthroughs.
- Clinical trials of Thai HIV-positive patients revealed an 81.2% prevalence of *Microsporidium* infections, demonstrating the necessity to check for *Microsporidium* presence in HIVpositive patients.

2009

#### After the

measurement of DNA polymorphisms, findings show demographic expansion but no genetic division between the *O. viverrini* populations of the lower Mekong River basin.

The Department of Social and Environmental Medicine established the Center for Health Impact Assessment, which conducts environmental and health impact assessments of industrial projects in Thailand.

2010

2011

An effect of co-arr was report melioido amoxicla for childr doxycycli trimoxaz

FERCAP

อาคารเฉลิงาท ระเกษ ท ซ Amhrisery of His Majesty An effective dosage of co-amoxiclav was reported for melioidosis. Coamoxiclav is safe for children, while doxycycline and cotrimoxazole are not.

2008

- The first workshop to offer training on "Methods of Nutritional Assessments and Research" was held by the department. The workshop is now held
- The Department of Protozoology reported an innovative, efficient technique to detect protozoa in water.

 Mahidol University began documenting DNA barcodes for insect vectors of Southeast Asia for the worldwide barcode database.
 DNA barcoding is a standardized method of identifying living species.

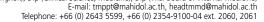
Mahidol University began a 5-year study investigating the efficacy and safety of dengue vaccine in children.

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### "Harmonized to be a Center of Excellence in Clinical Tropical Medicine Research"

The Department of Clinical Tropical Medicine was established in 1960, with the founding of the Faculty of Tropical Medicine. Our goal has always been to pursue research and training in tropical diseases prevalent in Thailand, thereby contributing to the advancement of knowledge and clinical care in tropical medicine. The Department has a long and proud history of contributions to clinical care and research, especially in malaria, AIDS vaccine, melioidosis, opisthorchiasis and gnathostomiasis, leptospirosis and avian influenza. Now, the major focus for malaria is the search for new treatments for complicated and uncomplicated multi-drug resistant *Plasmodium falciparum* malaria.

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31

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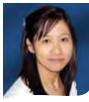
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#### MALARIA 1.

Malaria still has an enormous impact not only on human health, but also on economics and natural ecosystems. Laboratory research on malaria is one of the major current activities in Department of Clinical Tropical Medicine, Faculty of Tropical Medicine, Mahidol University. The aim is to provide in depth research for improving clinical care for patients with malaria. In recent years, this has become more complex, taking

into consideration factors such as pathophysiology, drug-resistant strains of malaria, etc. Now, cultures are available for all four major human malaria parasites: P. falciparum, P. vivax, P. malariae and P. ovale (additionally, cultivation of P. falciparum and P. vivax gametocytes are also available). This allows us to focus our research interests on malaria transmission.

In 2009, the research achievements concerned with P. falciparum malaria were (1) Identification of cell-derived microparticles in

> malaria patients as a marker of disease severity, (2) Explanation of the mechanisms and kinetics of red blood cell-derived microparticles in P. falciparum malaria, (3) Development of continuous ex vivo culture of P. falciparum gametocyte producing strains, and (4) Selection of mefloquine resistance in cultures of P. falciparum to study the relationship between the multidrug resistance gene1 (*Pfmdr*1) copy number and resistance as well as the relationship between fitness and Pfmdr1 amplification.



In terms of *P. vivax*, which is the most prevalent benign human malaria, a number of clinical trials have been conducted in the past decade to access the efficacy of all major antimalarial drugs. These outcomes lead to a better understanding of drug resistance and help to optimize innovative cure regimens for *P. vivax* infection. Other research achievements include a collaboration with Dr. Timothy J.C. Anderson, which involved the identification of adhesion receptors of *P. vivax* and development of microsatellite markers for the characterization of *P. vivax* populations. When in conjunction with other genotyping methods, this can be used for studying the disease relapse and epidemiology, genetics and drug susceptibility trials.

#### 2. MELIOIDOSIS

The Department of Clinical Tropical Medicine, in cooperation with the Mahidol-Oxford Tropical Medicine Research Unit and Sappasithiprasong Hospital in Ubon Ratchatani, has conducted research on melioidosis since 1986. The research covers all aspects of the disease including epidemiology and causative agents, clinical manifestations, pathogenesis, pathophysiology and management. The fruit of this research has led to the constructive knowledge of the disease and the standard treatment recommended for the management of melioidosis in both Thailand and other parts of the world.

Recently, it was decided by the network of melioidosis researchers, including members of the Department, to restart clinical trials in several hospitals in Northeastern Thailand. The goal is to improve disease outcome, which still remains a significant public health problem in Thailand.

#### 3. VACCINES

#### Influenza Vaccine

In 2009, WHO created a strategic plan to empower developing countries to be able to manufacture their own influenza vaccine. It was the first time that an attenuated influenza vaccine containing "live" pathogens was manufactured in Thailand. The Staff of Clinical Tropical Medicine have contributed to this project by performing Phase I/II clinical trial. The results of the trials will be licensed and used to benefit Thailand.

#### **HIV Vaccine**

For over the past 15 years, our staff has actively performed various research procedures and clinical trials, in collaboration with the Ministry of Public Health and various national and international academic institutes, to search for a suitable AIDS vaccine in Thailand. We are the only group to have conducted two efficacy trials, first involving rgp120 (AIDSVAX®) B/E vaccine on its own and another in combination with vector-based (ALVAC) HIV vaccine using AIDSVAX B/E vaccine as a prime–boost strategy. The second trial led to a medical breakthough. For the first time, an AIDS vaccine had signifcant efficacy (31.2%).

#### **HPV Vaccine**

Our staff has also participated in multi-centre trials of Quadrivalent HPV vaccine for cervical cancer, which was licensed in 2007. We continue to do further research assessing knowledge and acceptability of this vaccine in health care providers, parents and students. The study has shown that parents are very willing to co-pay for the HPV for their children. Now, we are continuing the efficacy trial of a nona-valent HPV vaccine.

#### **Publications and Awards**

Over the past 50 years, our department has published more than 1,000 articles related to tropical diseases in international, peer-reviewed journals. The staff have been invited to serve as advisors, consultants and members of various committees both here in Thailand and around the world. Our staff has also received many awards both national and international, especially in the area of Malaria and Melioidosis. Please refer to the tables starting on page 30 for details on our manuscripts and publications.

#### TEACHING

#### Students of Department Clinical Tropical Medicine

Course	No. of Students (Academic year 2009)	No. of Students
MCTM	6	0
MSc (Tropical Medicine)	2	2
PhD (Tropical Medicine)	5	9
PhD (Clinical Tropical Medicine)		2 0
Total	15	11

#### MCTM 2009-2010

No.	Student's Name	Advisor	Grant
1	Dr. Deena Kanagaraj	Dr. Suput Chamnanchanunt	
2	Dr. Tai Pei-Wen	Dr. Wirongrong Chierakul	
3	Dr. May Myat Win	Asst. Prof. Wirach Maek-a-nantawat	
4	Dr. Than Htike Aung	Asst. Prof. Jittima Dhitavat	TICA
5	Dr. Dipendra Sharma	Dr. Watcharapong Piyaphanee	
6	Dr. Veerachai Chevadisaikul	Prof. Punnee Pitisuttithum	

#### **MCTM Program**

The Master's degree in Clinical Tropical Medicine (MCTM) has been improved and facilities for clinical research have now become available in remote areas in Thailand. Based on each individual's requirements, a student can extend the study duration from up to 18 to 24 months. Students are allowed to select their own research topics based on their interests and desired post-graduate career path. The students gain clinical experiences in different tropical settings, such as field studies, refugee camps, community hospitals or tertiary care institutes. The course also encourage every graduate to present or publish his research in academic international meetings or related journals.



1<sup>st</sup> MCTM Presentation Awards (23 March 2009) 36 participants took part in the awards, which were located in the conference room on the 9th floor of the Anekprasong Building

#### PhD (Clinical Tropical Medicine)

No.	Student's Name	Advisor	Grant
7	Dr. Ayodhia Pitaloka Pasarib	Asst. Prof. Watcharee Chotjindachai	
8	Dr. Instiaty	Prof. Sasithon Pukrittayakamee	

#### MSc (Tropical Medicine)

No.	Student's Name	Advisor	Grant
9	Mr. Sasikrit Theppabutr	Asst. Prof. Mallika Imwong	
10	Miss Chatnapa Duangdee	Prof. Polrat Wilairatana	
11	Mr. Parara Hewage		
	Mangalasiri Jayathunge	Prof. Punnee Pitisuttithum	
12	Mr. Myo Nyein Aung	Assoc. Prof. Wattana Leowattana	DAAD
13	Dr. Wai Lin Htun	Prof. Punnee Pitisuttithum	
14	Dr. Damodar Paudal	Asst. Prof. Wirach Maek-a-nantawat	

# PhD (Tropical Medicine)

No.	Student's Name	Advisor	Grant
15	Miss Duangjai Duangrithi	Prof. Punnee Pitisuttithum	
16	Miss Tippawan Sungkapong	Assoc. Prof. Kesinee Chotivanich	Naresuan University
			(Medical Technology)
			& DAAD
17	Pol. Capt. Natsuda Jamornthanyawet	Asst. Prof. Mallika Imwong	
18	Miss Preeyaporn Monatrakul	Assoc. Prof. Kesinee Chotivanich	
19	Mr. Parkpoom Piyaman	Dr. Wichai Ekataksin	
20	Miss Sriwipa Chuangchaiya	Assoc. Prof. Kesinee Chotivanich	
21	Miss Suda Tunpiboonsak	Dr. Piengchan Sonthayanon	Ministry of Science
			and Technology
22	Miss Supinya Tanapongpichat	Asst. Prof. Mallika Imwong	Office of the Higher
			Education Commission
23	Miss Narumon Chanwimalueang	Dr. Wichai Ekataksin	
24	Miss Chuenrutai Yeekian	Prof. Punnee Pitisuttithum	
25	Mr. Archin Songthap	Prof. Punnee Pitisuttithum	Faculty of Graduate Studies
26	Mr. Glulam Rahim Awab	Prof. Sasithon Phukrittayakamee	

# 3.4 Training Course, Workshop, Meeting

#### At the National level (2)

Update on Travel and Adult Immunization 2009
 6-7 August 2009, Narai Hotel Bangkok
 Organizer: The Thai Red Cross Society
 Co- Organizers: Faculty of Medicine, Chulalongkorn University
 Faculty of Tropical Medicine, Mahidol University
 Travel Medicine Research Unit,
 Dept. of Clinical Tropical Medicine,
 Thai Society of Travel Medicine

Participants:

250



#### 2) Good Clinical Practice: Standard & Practice

26-28 August 2009, Conference Room, 5th floor, Chalermprakiat Building, Faculty of Tropical Medicine Organizer: Clinical Research Unit (CRU)

Participants: 79

# At the Faculty level

# Inter-Hospital Conference (2)

(1) 21 May 2009, Lecture room, 3rd floor, Chamlong Harinasuta, Faculty of Tropical Medicine

Organizer: Department of Clinical Tropical Medicine, Faculty of Tropical Medicine and Infectious Disease Division, Department Medicine, Faculty of Medicine Ramathibodi Hospital

Participants: 42

- (2) 27 August 2009, Room 623, 2nd Lecture Hall building, Faculty of Medicine Ramathibodi Hospital
  - Organizer: Infectious Division, Department Medicine, Faculty of Medicine Ramathibodi Hospital and Department of Clinical Tropical Medicine, Faculty of Tropical Medicine



Participants: 39

#### 4. **RESEARCH**

Research presented at international conferences, from 1 January – 31 December 2009

No.	Presenter	Title	Conference	Date	International
1	Pitisuttithum P	Need for infrastructure and capacity building in preparation for HIV vaccine trails –experience in Asia and other regions	Global HIV Vaccine Enterprise Regional Consultation, Beijing, China	22-24 February 2009	v
2	Pitisuttithum P	Engaging communities in AIDS vaccine Clinical development in Thailand	Global HIV Vaccine Enterprise Regional Consultation, Beijing, China	22-24 February 2009	V
3	Pitisuttithum P	Community Engagement	Meeting of the Enterprise Coordinating Group to Prepare for the Release of HIV Vaccine Efficacy Trail Result, New York, USA	2-4 June 2009	V
4	Kittitrakul C, Vilaichone R, Tumwasorn S and Mahachai V	Relationship between hrgA gene of <i>Helicobacter pylori</i> Infection in Gastritis and Peptic Ulcer Disease in Thailand	22nd International Workshop on Helicobacter and Related Bacteria in Chronic Digestive Inflammation and Gastric Cancer, Porto, Portugal	17-19 September 2009	V
5	Rerks-Ngarm S, <b>Pitisuttithum P.</b> Kunasol P and Kim J	Phase III trial of HIV prime-boost vaccine combination in Thailand : result of final analysis	AIDS Vaccine 2009 Paris, France	19-22 October 2009	V

No.	Presenter	Title	Conference	Date	International
6	Kim JH, Kamasuta C, Trichavaroj R, Kaewkungwal J Chantakulkij S Ratto-Kim S, Eamsila C, Sukwit S, Nitayaphan S, <b>Pitisuttithum P,</b> Michael NL Chiu J, Rerks-Ngarm S, Souza MS de and Paris RM	OA04-06 LB. Post-infection cellular immune responses in recipients fellow ALVAC-HIV+ AIDSVAX® B/E prime – boost vaccination in the Thai Phases III Trial	AIDS Vaccine 2009, Paris, France	19-22 October 2009	v
7	Pitisuttithum P, Rerks-Ngarm S, Kaewkungwal J, Nitayaphan S, Khamboonruang C, Kunasol P, Suntharasamai P, Beneson MW and Kim JH,	P14-05. Recruitment, retention and participation impact events among women participating in phase III community trial in Thailand	AIDS Vaccine 2009, Paris, France	19-22 October 2009	V
8	Kaewkungwal J, <b>Pitisuttithum P,</b> Nitayaphan S, Khamboonruang C, Khamboonruang C, Thongchareon P, Kunasol P, Beneson M and Kim J	the phases III vaccine trial of	AIDS Vaccine 2009, Paris, France	19-22 October 2009	V
9	Imwong M	Characterisation of candidate genes conferring artemisinin resitance <i>Plasmodium falciparum</i>	Joint International Tropical Medicine Meeting, Bangkok Thailand	3-4 December 2009	V
10	<b>Ekataksin W,</b> Chanwimalueang N, Watcharapornpakdee A, Suebtrakul P, Soilueang P, Piyaman P, Khachonsaksumet V	Epidemiological profile of 1,050 patients at Thailand lymphedema day care center	Joint International Tropical Medicine Meeting, Bangkok Thailand	3-4 December 2009	V
11	Ekataksin W,	Lymphedema profunda : A description of a hitherto unrecognized clinical entity	Joint International Tropical Medicine Meeting, Bangkok Thailand	3-4 December 2009	V
12	Sonthayanon P, Thaipadungpanit J, Cheirakul W, Wuthiekanunt V, Kalumbhati T, Boonsilp S, Day NP, Peacock S J	Molecular diagnosis of leptospirosis	Joint International Tropical Medicine Meeting, Bangkok Thailand	3-4 December 2009	V

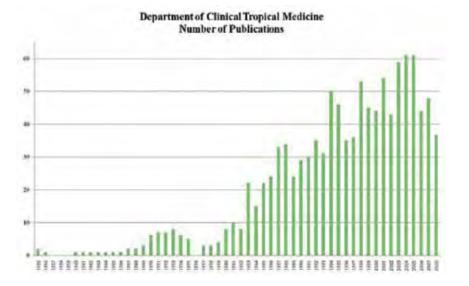


Figure 1 Number of Publications of Department

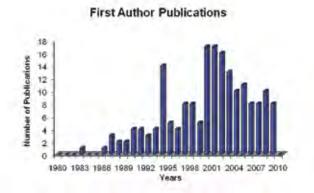
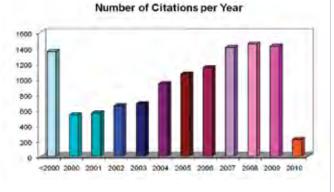


Figure 2 Number of First Author Publications of Department

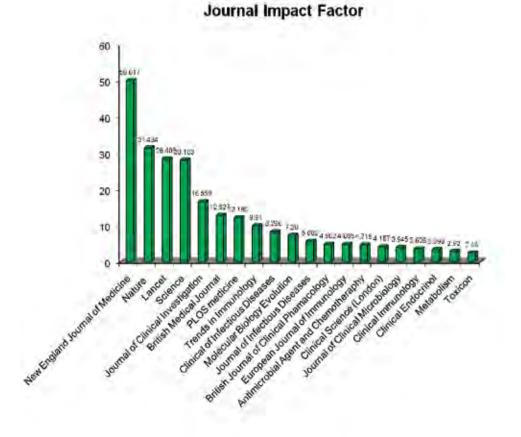


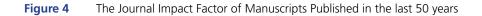
Number of Manuscripts Citations cited per

Section 2. Sector

Figure 3

year





# 5. TEXTBOOK

1. Textbook ; Travel and Adult Immunization (in Thai), ISBN 978-974-9922-94-1; 2009

# DEPARTMENT OF HELMINTHOLOGY

#### Telephone: 0 2354 9100-4, 0 2306 9100-09, 0 2354 9180-1 ext. 9180-1 Fax: 0 2643 5600



The Department teaches Medical Helminthology in the Faculty's regular programs: the Graduate Diploma in Tropical Medicine and Hygiene (DTM&H), the Master of Science in Tropical Medicine (MSc Trop Med) and Doctor of Philosophy in Tropical Medicine (PhD Trop Med).

As a part of the DTM&H program, we teach courses entitled Fundamentals of Tropical Medicine and Hygiene, Food- and Water-borne Diseases (I), and Soil-transmitted Helminthiases, Food- and Water-borne Diseases (II) (Tissue Parasites), Mosquito-borne Diseases (I), Field Study, and Medical Parasitology and Entomology.

Within the MSc and PhD programs, we teach Tropical Medicine (I), Medical Helminthology, Practical Parasitology, Essential Systematic Helminthology, Advanced Parasitology, Experimental Techniques in Parasitology, Molecular Biology of Parasites and Vectors, Special Topics in Helminthology, Special Topics in Parasitology, and Medical Entomology.

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#### ACADEMIC PROGRAMS

- 1) Graduate Diploma in Tropical Medicine and Hygiene (DTM&H)
- 2) Doctor of Philosophy in Tropical Medicine (PhD, Trop Med)
- 3) Master of Science in Tropical Medicine (MSc, Trop Med )
- 4) Bachelor of Science for rural medical students (BSc)

#### CURRENT STUDENTS

#### MSc (Trop Med)

- 1. Dr. Youthanavanh Vonghachack
- 2. Mr. Sitithana Adam
- 3. Miss Nathaka Chumsaeng
- Lao PDR Thailand
- Thailand

# PhD (Trop Med)

- Mr. Apichat Vitta
   Mr. Kasem Somthana
- 3. Ms. Muncharee Tattiyapong
- 4. Ms. Urusa Thaenkham
- 5. Ms. Kanokkan Pothong





Thailand

Thailand

Thailand

Thailand

Thailand

#### RESEARCH

The Department of Helminthology carries out research activities in basic and applied sciences in 5 main areas:

- 1. Biology, Ecology and Diversity
- 2. Taxonomy and Population Genetics
- 3. Epidemiology and Community Health
- 4. Immunodiagnostics
- 5. Molecular Helminthology

#### **ONGOING RESEARCH PROJECTS**

- Genetic variation and population structure studies of fish-borne trematodes to increase control impact of opisthorchiasis and chlolangiocarcinoma
- 2. Intestinal parasites isolated from common houseflies in the tourist attraction areas in Thailand
- 3. Effects of trichinosis on lipid peroxidation in rats
- 4. The study of the life cycle and antiginicity of *Paragonimus pseudoheterotremus*
- 5. Taenia asiatica: DNA sequence and genetic variation
- 6. Study on the recombinant proteins expressed from Mucin-1 gene of *Toxocara canis* in prokaryotic and eukaryotic cells for diagnosis of human toxocariasis
- Angiostrongylus cantonensis in freshwater snails collected from 18 different localities of Thailand: prevalence and parasitic burden, biochemical components, antigenicity and population genetics
- 8. Analysis of *Paragonimus heterotremus*-specific antigen prepared by cDNA cloning for serodiagnosis of human paragonimiasis in Thailand
- 9. IgE, IgG and IgG 1-4 against sparganum antigen for sparganosis detection by Immunoblot
- 10. Function studies of proteases from *Angiostrongylus* cantonensis in activation of metrix metalloprotease
- 11. Health status of immigrant children in Samutsakorn Province
- 12. Enterobiasis among Burmese schoolchildren in child day care centers in Samutsakorn Province

13. House-flies: Surveillance of vector-borne diseases surrounding resident area of Burmese immigrant workers in Samutsakorn Province

#### ACADEMIC SERVICES

- 1. Immunodiagnosis for Helminthic infections
- 2. Teaching materials
- 3. Quality Control Sample
- 5. KATO-KATZ KIT







# DEPARTMENT OF MEDICAL ENTOMOLOGY

#### Telephone: 0 2306 9176-77, 0 2306 9100 ext. 1571-2, 1574-8, 1843,1845, 2109 Fax: 0 2643 5582 E-mail: headtmen@mahidol.ac.th

he Department of Medical Entomology was one of the five departments at the initial stage of establishment of the Faculty of Tropical Medicine in 1960. At present, the Department comprises of 7 academic staff, 2 researchers, 3 scientists, 1 medical science associate, 11 medical science assistants, 1 administrative officer, 1 business associate and 2 janitresses. The Department has been actively involved in education, research and public service. Apart from the regular subjects of Medical Entomology for the Graduate Diploma in Tropical Medicine and Hygiene (DTM&H), Master of Science Programme in Tropical Medicine (MSc, Trop Med), Doctor of Philosophy Programme in Tropical Medicine (PhD, Trop Med), Master of Clinical Tropical Medicine Programme (MCTM) and Doctor of Philosophy Programme in Clinical Tropical Medicine (PhD, CTM), the Department also provides the training on medically important insects and arthropods as well as vector control, both for individuals or groups upon request. Student dissertation topics span a wide range of issues in molecular and applied medical entomology. Dissertations include basic field work, application of control measures, and biotechnology. Most degree candidates typically spend no longer than five years taking graduate courses and doing research. Upon graduation, our students pursue diverse careers. Many take positions in academic institutions or government organizations as well as in private sectors, working for research and development. The main research involves basic and applied knowledge applicable to population control of insect and arthropod species known to be vectors of tropical diseases, with particular emphasis on mosquitoes. As a reference centre, the Department of Medical Entomology develops the Mosquito Museum and runs the project on application of computer technology on management of biological specimens.



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#### **EDUCATION:**

The Department of Medical Entomology has several subjects for coursework of the Graduate Diploma in Tropical Medicine and Hygiene (DTM&H), Master of Science Programme in Tropical Medicine (MSc, Trop Med), Doctor of Philosophy Programme in Tropical Medicine (PhD, Trop Med), Master of Clinical Tropical Medicine Programme(MCTM), and Doctor of Philosophy Programme in Clinical Tropical Medicine (PhD, CTM).

#### Master of Science Programme in Tropical Medicine (MSc, Trop Med)

Student ID No.	Student Name	Funding Agency	Advisor
	Phubeth Ya-umphan	_	Assoc. Prof. Narumon Komalamisra
	Wachiraphan Chittham	- Government Budget Year 2009	Dr. Sungsit Sungvornyothin
5137916 TMTM/M	Nima Wangdi Gyeltsher	Research Grant for New Scholar	Dr. Sungsit Sungvornyothin

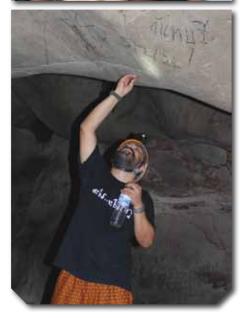
#### Doctor of Philosophy Programme in Tropical Medicine (PhD, Trop Med)

Student ID No.	Student Name	Funding Agency	Advisor
4437521 TMTM/D	Pruksa Nawtaisong	The Royal Golden Jubilee Ph.d Program	Assoc. Prof. Narumon Komalamisra
4537211 TMTM/D	Jakkrawarn Chompoosri	The Royal Golden Jubilee Ph.D Program	Assoc. Prof. Narumon Komalamisra
4637689 TMTM/D	Raweewan Srisawat	The Royal Golden Jubilee Ph.D Program	Assoc. Prof. Narumon Komalamisra
4737529 TMTM/D	Suchada Sumroiphon	-	Assoc. Prof. Chamnarn Apiwathnasorn
4737532 TMTM/D	Parichat Lapcharoen	-	Assoc. Prof. Narumon Komalamisra
4837561 TMTM/D	Namtip Trongnipat	-	Assoc. Prof. Chamnarn Apiwathnasorn
4837566 TMTM/D	Chalermpon Kumpitak	-	Assoc. Prof. Chamnarn Apiwathnasorn
4937694 TMTM/D	Chalalai Rueanghiran	DAAD Schorlaships Award Year 2009	Dr. Jiraporn Ruangsittichai
5037444 TMTM/D	Kruawan Chotelersak	Government Budget Year 2007-2010	Dr. Jiraporn Ruangsittichai









#### RESEARCH

This page provides a general overview of the current activities in the department. The department of Medical Entomology conducts dynamic research projects that are recognized both nationally and internationally. The items below are only the highlights of our activities.

# Epidemiological Investigation of Outbreaks of Vector-borne Diseases

In order to resolve entomological problems through research, in collaboration with the Department of Disease Control at the Ministry of Health, we have been making the results of our study available to other scientists, educators, and the general public to get ideas on how to develop effective control measures for the community. We had a previous study on the impact of the Asian Tsunami on mosquito vectors in the most affected areas of Phang Nga Province in December 2004, which was a successful small-scale project for controlling mosquito larvae inhabiting swamps and ponds contaminated by seawater. To control the larva population, we used *Bacillus thuringiensis israelensis* (VectoBac® WDG) in combination with application of natural mosquito repellents to prevent the local people from mosquito bites. More recently, this study has been extended to the worst-affected area, Ban Nam Khem Village.

The Department also helps investigate re-emerging and emerging diseases, such as the local transmission of malaria in Sa Kaeo Province and autochthonous visceral leishmaniasis of Thailand (which lead to the discovery of a new species of *Leishmania*). In addition, the department works with local public health officials to examine mite infestations in the external ear canals of shallot farmers in Si Saket Province, study an outbreak of contact dermatitis due to infestation of rove beetles in apartments in Phra Nakhon Si Ayutthaya Province, and identify medically important insects, such as maggots causing myiasis or ticks and mites for general hospitals.

#### Technology to Assist the Public

We have conducted many studies on the insecticidal capabilities of several species of Thai herbs for controlling mosquito vectors. The results have shown various oil extracts that provided a promising mosquito repellency effect, such as Qinghao (*Artemisia annua*), "May Chang" (*Litsea cubeba*), cloves (*Syzygium aromaticum*), and "Ma Khwaen" (*Zanthoxylum limonella*), which were formulated in forms of cream or gel. The extract of "Thong Pan Chung" (*Rhinacanthus nasutus*), prepared in a tablet form, provided high larvicidal activity. We developed a mosquito repellent mixture of volatile oils from Qinghao and May Chang, which has an average protection time of more than 5 hours and has recently obtained a petty patent. Our research group is to transferring low-cost and simple production of this repellent from our laboratory to communities at a high risk for malaria and dengue transmission. This is done through training

for their own production and use for the disease prevention with legal permission.

#### **Developing Effective Tools**

In cooperation with the Department of Disease Control at Ministry of Health and the European Research Community, we are coordinating a project entitled "Toward successful dengue prevention and control." Our goal is to determine the field efficacy of curtains commercially treated with long-lasting insecticides as a reducting agent of man-vector contact and thus controlling the dengue vector populations in Phag Nga Province.

#### Insect Vector Rearing Laboratory

We maintains laboratory colonies of mosquito vector species (*Anopheles, Aedes, Culex*, and *Mansonia*) as well as other medically important insects, such as cockroaches, flies, bedbugs and ticks. These are kept in the insectarium for research and educational purpose.

#### Mosquito Museum and Reference Center

The Department of Medical Entomology acts as a reference center on mosquito vectors of Thailand through establishment of the Mosquito Museum. The collections include 18 genera of mosquitoes with more than 20,000 specimens (mounted slide and pinned). In addition, the DNA of mosquito vectors is extracted and preserved in the museum's collections. Academic consultations are also provided, especially on the subject of mosquito-borne diseases and their control measures.

#### **CURRENT RESEARCH**

#### Molecular biology of insect vectors

The study of vector biology uses molecular techniques like gene cloning, creation of cDNA, polymerase chain reaction (PCR), gel electrophoresis, various blotting techniques, RFLP analysis, and DNA sequencing. The following are the three main currently researched areas of our department.

(1) We plan to identify species complexes and population genetic characteristics among insect vectors to differentiate between vector species: • Through molecular differentiation of the morphologically similar species such as Ae. *niveus* subgroup, Ae. Albopictus, An. sundaicus complex, Mansonia spp., An. barbirostris group, and phlebotomine sandflies

• By developing techniques to identify insect vector species through DNA barcodes (648-bp stretch of the mitochondrial gene for cytochrome c oxidase-I), allowing taxonomists to quickly and accurately identify specimens.

• From characterization of the population genetic structure of mosquito vectors, to identify molecular markers related to biting behaviour, vectorial capacity, and other epidemiologically important characteristics.

(2) We plan to determine the emergence of insecticide resistance and its mechanisms in major insect vectors.

(3) We plan to investigate vector-parasite interactions in mosquito-borne diseases, with emphasis on the molecular mechanisms and immune peptide production responsible for pathogen destruction, such as melanotic encapsulation, to look at the possibility of genetically engineering pathogenresistant mosquitoes.

#### DNA banking of mosquito vectors of Thailand

Thailand is facing a biodiversity loss owing to environmental change, both natural and man-made. DNA banks are great tools for biodiversity conservation by providing a ready and secure source of genetic data, which can be used by future generations of researchers. In order to complete DNA banking of mosquito vectors, we must collect mosquito samples for the purpose of supporting comparative molecular biology, for instance, phylogeny, population genetics and distribution of species complexes.

#### Geographic Information System (GIS)

GIS is seen primarily as a research tool in the field of vector-borne disease. Mapping efforts are conducted on geographic scales ranging from village to continental levels, and on temporal scales ranging from the duration of an outbreak to multi-year models. GIS serves as a common platform for the convergence of multi-disease surveillance activities. Public health resources, specific diseases and other health events can be mapped in relation to their surrounding environment, existing health, and social infrastructures. Such information when mapped together creates a powerful





tool capable of analyzing the evolution and distribution of parasites and their relationship to different ecological niches. This may dramatically improve our ability to quantify the disease impacts of climatic and ecological changes. Additionally, the use of GIS in decision support has also become an area of growing interest.

We have already constructed GIS Maps of Brugian Filariasis in the southern province of Narathiwat Province. The study demonstrated how raster and vector data were used within a GIS framework to produce maps indicating areas of potential risk for filariasis transmission within peat-swamp forests. A risk map was generated by overlay operations of GIS based on the attribute data and distribution of residences of infected people combined with the boundary of the peat swamp forest conservation zone. The information included in the GIS maps can help identify where current information is lacking and serves as a stimulus to collect new or additional data.

#### **Develop Natural (Plants) Insect Repellents**

On the basis of cost-effectiveness and safety, we are developing simpler ways to provide the local populations with natural, effective repellents for a wide variety of insect vectors including mosquitoes, cockroaches, bed bugs, ticks, and flies.

#### **INTERNATIONAL LINKAGES**

No.	Institutions	Countries
1	Oita University	Japan
2	Liverpool School of Tropical Medicine	United Kingdom
3	Institute of Tropical Medicine Nationalestraat 155 B-2000 Antwerpen	Belgium

#### **NATIONAL LINKAGES**

No.	Institutions
1	Department of Disease Control, Ministry of Public Health

No.	Title
1	Identification of arthropods and insects from biological specimens.
2	Determination of filarial worms by Knott's Concentration Technique.
3	Insecticide Susceptibility Testing Service
4	Educational Specimens for Sale "Mosquito & Medical Arthropod Important"
5	Alternative mosquitoes Repellent

# DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

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Associate Professor Manas Chongsa-nguan Head of Department BSc, MPH, PhD Expertise: Immunodiagnosis of tropical infections E-mail: tmmcs@mahidol.ac.th Tel: 9173



Asst. Prof. Thareerat Kalambaheti Deputy Head of Deparment BSc, MSc, PhD Expertise: Bacteriology, molecular biology, immunology E-mail: tmtkl@mahidol.ac.th; kalambah@lycas.com. Tel:1592, 1673, 2093



Dr. Pornsawan Leaungwutiwong Lecturer BSc, MSc, PhD Expertise: Medical virology E-mail: tmpam@mahidol.ac.th Tel: ext 1597, 2098



Dr. Pornpan Pumirat Lecturer BSc, PhD Expertise: Bacteriology, immunology, molecular microbiology E-mail: tmpmr@mahidol.ac.th Tel: 1595



Prof. Srisin Khusmith BSc, MSc, Doctoråt D'Etat es Sciences Expertise: Immunology, microbiology, molecular biology, malaria, tuberculosis, HIV E-mail: tmskm@mahidol.ac.th Tel: 1594, 2096



Dr. Nitaya Indrawattana Lecturer BSc, MSc, PhD Expertise: Regenerative medicine, biosensors, molecular microbiology E-mail: tmniw@mahidol.ac.th Tel: 1598, 2092



Ms. Akanitt Jittmittraphap Lecturer BSc, MSc Expertise: Immunology, molecular biology of dengue viruses E-mail: traijm@mahidol.ac.th Tel: 1597, 2098



RESEARCH

**EDUCATION** 

**SERVICE** 

according to demand.

Asst. Prof. Yuvadee Mahakunkijcharoen BSc, MSc, PhD Expertise: Immunology, microbiology, Aeromonas E-mail: tmymh@mahidol.ac.th Tel: ext 1596, 2094



Dr. Narisara Chantratita Lecturer BSc, MSc, PhD Expertise: Immunology, bacteriology, molecular biology, melioidosis E-mail: narisara@tropmedres.ac Tel: 1599, 2097



Mrs. Teerarut Chanket Scientist BSc, MSc Expertise: Bacteriology, molecular biology E-mail: tmtck@mahidol.ac.th Tel: 1592, 2093



The Department is focused on researches which relate to many important microbial pathogens eg. influenza viruses, dengue viruses, *Aeromonas, Listeria, Burkholderia*, and *Vibrios*; and the host immune defenses, host-pathogen interaction in

The Department has actively involved in education by teaching in Faculty's postgraduate courses e.g. M.Sc. (Trop. Med), Ph.D. (Trop. Med), D.T.M.& H. and also the short course

The Department is now offering 7 main diagnostic laboratory services including culture and the identification of bacteria, detection of some viruses as well as the antibody

detection of scrub typhus and leptospirosis.

malaria, leptospirosis, melliodosis and scrub typhus.

Dr. Jintana Patarapotikul Lecturer BSc, MSc, PhD Expertise: Immunology, molecular biology of malariam human genetics E-mail: tmipt@mahidol.ac.th Tel: 1666, 1668



Dr. Muthita Vanaporn Lecturer BSc, PhD Expertise: Molecular microbiology, bacterial pathogenesis E-mail: tmmuthita@mahidol.ac.th Tel: 1595



Mrs. Suporn Paksanont Scientist BSc, MSc Expertise: Using of radioisotopes in tropical medicine and biology E-mail: tmspm@mahidol.ac.th Tel: 1592, 2094



Ms. Natnaree Saiprom Scientist BSc Expertise: Flow cytometry, rickettsiology (scrub typhus) E-mail: natnareesatprom@hotmail.com Tel: 1595, 2097



Ms. Thidarat Kingnok Scientist Assistant HSD Tel: 1668



Ms. Siriporn Chattanadee Medical Technology Assistant Cert (Med Tech) Expertise: Bacterial identification, serological diagnosis of leptospirosis E-mail: tmscn@mahidol.ac.th Tel: 1671, 1673



Ms. Thida Kongngoen Scientist BSc Expertise: Microbiology, immunology E-mail: discomycetesz@hotmail.com Tel: 2092



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Mrs. Sukanya Buaphun Business Assistant BEd E-mail: sukanyabua@hotmail.com Tel: 1592, 1595



Ms. Jarinee Tongshoob Researcher BSc, MSc Expertise: Immunology, malaria E-mail: tmjpc@mahidol.ac.th Tel: 1592, 2096



Ms. Kanlaya Srepong Scientist BSc Expertise: Microbiology, immunology E-mail: n\_5\_kan@hotmail.com Tel: 2098



Mrs. Saijai Sawanng-arom Business Assistant Dip (Business Admin) E-mail: tmssg@staff2.mahidol.ac.th Tel: 9172

#### HIGHLIGHT ACTIVITIES Education

Names of students continuing their studies:

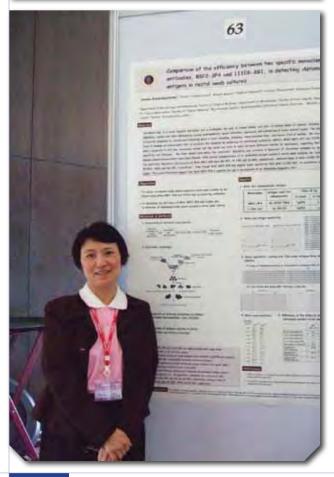
#### Doctorate

- 1. Ms. Onguma Natalang
- 2. Ms. Jintana Phawong
- 3. Ms. Natharinee Horata
- 4. Ms. Chutharut Ridruechai
- 5. Mrs. Areerat Sangasang
- 6. Mr. Kasem Somthana
- 7. Ms. Nada Petabut
- 8. Ms. Wantana Paveenkittiporn
- 9. Ms. Mathkorn Na Ubol
- 10. Ms. Chayanee Settgapramote
- 11. Ms. Ladawan Sariya
- 12. Ms. Sumonmal Uttayamakul
- 13. Mr. Siriwat Akapirat
- 14. Ms. Pikun Thepsuriyanont









- 15. Ms. Khurawan Kumkrong
- 16. Ms. Aunchalee Thanwisai

#### Master's degree

- 1. Ms. Uranan Tumkosit
- 2. Mr. Nopporn Tohmee
- 3. Ms. Thanaporn Niboddhasobon
- 4. Ms. Phakapun Singchai
- 5. Ms. Supaporn Sukkasem
- 6. Dr. Pham Anh Duc
- 7. Ms. Apinya Pumpuang
- 8. Mr. Surachet Benjathummarak
- 9. Ms. Orawan Sungkhachat
- 10. Ms. Chonlatip Pipattanaboon
- 11. Ms. Busara Bamrungsak

#### Funding Agency

- 1. SEAMEO/TROPMED
- 2. The Royal Golden Jubilee Ph.D Program
- 3. UDC from the Commission on Higher Education of Thailand
- 4. Partial Thesis Scholarship
- 5. Strategic scholarships Fellowships Frontier Research Networks
- 6. The Japan Health Science Foundation
- 7. International Medical Center of Japan

# Students receiving funding

# Doctorate

- 1. Ms. Jintana Phawong
  - The Royal Golden Jubilee Ph.D Program
  - UDC from the Commission on Higher Education of Thailand
- 2. Ms. Natharinee Horata
  - The Royal Golden Jubilee Ph.D Program
- 3. Ms. Chutharut Ridruechai
  - International Medical Center of Japan
- 4. Ms. Nada Petabut
  - The Royal Golden Jubilee Ph.D Program
  - 5. Ms. Sumonmal Uttayamakul
    - The Royal Golden Jubilee Ph.D Program
    - Partial Thesis Scholarship
- 6. Mrs. Areerat Sangasang
  - The Royal Golden Jubilee Ph.D Program
- 7. Ms. Pikun Thepsuriyanont
  - Strategic scholarships Fellowships Frontier Research Networks
- 8. Ms. Wantana Paveenkittiporn
  - Partial Thesis Scholarship
- 9. Ms. Aunchalee Thanwisai
  - Strategic scholarships Fellowships Frontier Research Networks

#### Master's degree

- 1. Ms. Supaporn Sukkasem
  - The Japan Health Science Foundation

#### RESEARCH

#### Highlights of research projects

Hoffman SL, Charoenvit Y, Hestrom R, **Khusmith S**, Rogers WO.

"Protective malaria sporozoite surface protein immunogen and gene."

- United States Patent. Patent no: 5,198,535 Date of Patent: March 30, 1993-present
- International patent number: WO 92/11868 Date of patent: July 23,1992

#### National and International Linkages

#### National Linkages

1. Department of Microbiology, Faculty of Public Health, Mahidol University.

2. Faculty of Medical Technology, Mahidol University.

3. Department of Microbiology, Faculty of Medicine, Siriraj Hospital, Mahidol University.

4. Mahidol University-Oxford Tropical Medicine Unit, Faculty of Tropical Medicine, Mahidol University.

5. Department of Anatomy, Faculty of Science, Mahidol University.

6. Division of Instruments for Research, Office for Research and Development, Faculty of Medicine Siriraj Hospital, Mahidol University.

7. Faculty of Veterinary Medicine, Mahidol University.

8. Department of Parasitology, Faculty of Medicine Siriraj Hospital, Mahidol University.

9. Department of Immunology, Faculty of Medicine, Siriraj Hospital, Mahidol University.

10. Department of Microbiology, Faculty of Science, Mahidol University.

11. Department of Pathology , Faculty of Medicine Ramathibodi Hospital, Mahidol University.

12. Department of Medicine, Faculty of Medicine Ramathibodi Hospital, Mahidol University.

13. Institute of Science and Technology for Research and Development, Mahidol University.

14. Department of Virology, and Medicine, Armed Forces Research Institute of Medical Science.

15. Department of Immunology and Medicine, Armed Forces Research Institute of Medical Science.

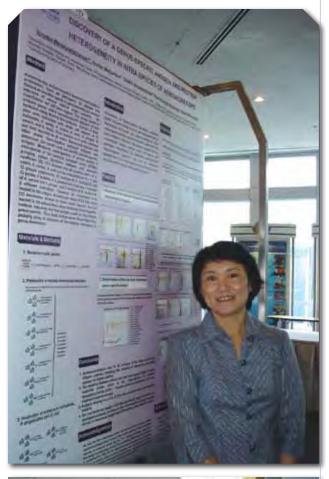
16. Department of Microbiology, Bamrasnaradura Infectious Disease Institute, Ministry of Public Health.

17. Department of Medical Science, National Institute of Health, Ministry of Public Health.

18. Department of Disease Control, Ministry of Public Health.

19. Bureau of Epidemiology, Department of Disease Control, Ministry of Public Health.

20. Chest Disease Institute, Department of Medical Services, Ministry of Public Health.









21. Bamrasnaradura Infectious Diseases Institute, Ministry of Public Health.

22. Department of Internal Medicine, Chiang Rai Regional Hospital, Chiang Rai Province.

23. Chiang Rai Regional Hospital, Ministry of Public Health, Chiang Rai.

24. Chiang Rai Regional Medical Sciences Center, Department of Medical Sciences, Ministry of Public Health, Chiang Rai.

25. Chiang Rai Provincial Health Office, Ministry of Public Health, Chiang Rai.

26. TB/HIV Research Project, Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association, Chiang Rai.

27. Mae Chan Hospital, Chan, Chiang Rai Province.

28. Department of Microbiology and Immunology, Faculty of Veterinary Medicine, Kasetsart (Including Kampaeng-saen Campus).

29. Department of Veterinary Pathology, Faculty of Veterinary Medicine, Kasetsart (Including Kam-paeng-saen Campus).

30. Faculty of Science, Kasetsart University, Bangkok.

31. Faculty of Allied Health Sciences, Thammasat University Rangsit Center.

32. B.M.A. Medical College and Vajira Hospital Bangkok.

33. Department of Microbiology, Faculty of Medicine, Chiang Mai University, Chiang Mai Province.

34. Buriram Hospital, Buriram Province.

35. Surin Hospital, Surin Province.

36. Departmant of Microbiology, Faculty of Medicine, Chulalongkorn University Bangkok.

37. Maharat Nakhon Ratchasima Hospital, Nakhon Ratchasima Province.

38. Department of Microbiology, Faculty of Medicine, Khonkean University, Khohkean Province.

## International Linkages

#### Australia

- Department of Microbiology Faculty of Medicine, Nursing and Health Sciences, Monash University.
- Bart J Currie. Menzies School of Health Research, Charles Darwin University, Darwin, Northern Territory.

#### France

 Institute Pasteur Unit of Molecular Immunology Parasites, Paris.

#### Germany

 Merck Stiftungsprofessur Molekulare Biotechnologie Institut f
ür Molekulare Biotechnologie J.W. Goethe Universit
ät Frankfurt Biozentrum (Helge B. Bode)

#### India

 National Institute of Cholera and Enteric Diseases, Kolkata.

#### Japan

- Department of Respiratory Diseases, Research Institute, International Medical Center of Japan, Tokyo.
- Center of International Collaborative Research, Institute of Tropical Medicine, Nagasaki University, Nagasaki.
- Laboratory of Organic Chemistry, Center for Basic Research, The Kitazato Institute, Tokyo.
- Department of Biomedical Sciences, College of Life and Health Sciences, Chubu University.
- Department of Virology, Institute of Tropical Medicine, Nagasaki University, Nagasaki.
- Department of Human Genetics, Graduate School of International Health, Graduate School of Medicine, The University of Tokyo.
- Division of Tropical Diseases and Parasitology, Department of Infectious Diseases, Kyorin University School of Medicine, Tokyo.
- Division of Cellular and Molecular Immunology, Center of Molecular Biosciences, University of the Ryukus, Okinawa.
- Department of International Biomedical Sciences, Division of International Health, Graduate School of Medicine, University of Tokyo.
- Department of Appropriate Technology Development and Transfer, Research Institute, International Medical Center of Japan, Tokyo.
- Biomaterials Center, National Institute for Materials Science.
- Research Institute for Cell Engineering, National Institute of Advanced Industrial Science and Technology.
- Department of Applied Veterinary Medicine and Public Health, Obihiro University of Agriculture and Veterinary Medicine, Hokkaido.
- Research Institute for Microbial Diseases, Osaka University.
- Department of Virology, Research Institute for Microbial Diseases, Osaka University, Osaka.

#### Singapore

- Genome Institute of Singapore, Singapore, Republic of Singapore. (Patrick Tan).

#### Sweden

- Department of Immunology, Wenner-Gren Institute, University of Stockholm.
- Clinical Epidemiology Unit, Department of Medicine, Karolinska University Hospital, Stockholm.
- Clinical Research Centre, Örebro University Hospital, Örebro.

#### Taiwan

- National Cheng-Kung University.

#### **United Kingdom**

- Department of Pharmacology and Therapeutics, Liverpool School of Tropical Medicine.
- Department of Primary Care and Social Medicine, Imperial College, London.
- Department of Biology and Biochemistry, University of Bath, (Edward J. Feil).
- Department of Medicine, University of Cambridge, Addenbrooke's Hospital, Cambridge, (Sharon J. Peacock).

#### USA

- Walter Reed Army Institute of Research (Silver Spring).
- The University of Texas Health Science Center at Houston.
- Department of Medicine, University of Washington, Seattle, Washington. (T Eoin West).
- Department of Microbiology, Nevada School of Medicine, Nevada. (David AuCoin).
- Department of Microbiology, Immunology and Pathology, Rocky Mountain Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research, Colorado State University. (Herbert P. Schweized).

#### Vietnam

 Department of Molecular Systematic and Conservation Genetics, Institute of Ecology and Biological Resources Vietnamese Academy of Science and Technology Hanoi, (Phan Ke Long).

#### **Technical Services**

- 1. Aerobic Bacterial Culture & Identification
- 2. Culture for Bacteria/Fungi in Herbal Medicine
- 3. Production of Microbiological Teaching Materials
- 4. Indirect Immunofluorescent Assay (IFA) for Scrub Typhus
- 5. Microscopic Agglutination Test for Leptospirosis
- 6. Flow Cytometry for CD4 and CD8
- 7. Detection of Novel Influenza A Virus (H1N1) by REAL-TIME RT-PCR



# **DEPARTMENT OF PROTOZOOLOGY**

Telephone: 0 2354 9100 ext 9182-3 Fax: 66 (0) 2643 5601 Website: www.tm.mahidol.ac.th/en/tmpz/tmpz\_index.htm



Head of Department (From 1 Oct 2003 - 31 May 2009) BSc, DVM, MD (Hons), Dip (Thai Board in Otorhinolaryngology), DTM&H, MCTM Expertise: Otorhinolaryngology, Toxoplasma gondii E-mail: tmymv@mahidol.ac.th; Tel: ext 1830

Expertise: Biochemistry of malaria parasites/ Cultivation of *P. falciparum* gametocytes and *T.* vaginalis, molecular diagnosis of Plasmodium and Entamoeba E-mail: tmppm@mahidol.ac.th: Tel: ext 1835

E-mail: tmrcc@mahidol.ac.th Tel: ext 1831

he Department of Protozoology was one of the original five departments established in 1960. Currently, the Department is responsible for



Dr. Supaluk Popruk Lecturer Expertise: Molecular biology E-mail: tmspo@staff2.mahidol.ac.th Tel: ext 1832 PhD (Trop Med)



Ms. Somsri Kajorndechakait Medical Science Associate Cert (Med Tech) Tel: ext 9183



Dr. Aongart Mahittikorn PhD (Trop Med) Expertise: Duplex RT-PCR for acute and chronic-stage toxoplasmosis, molecular techniques for rapid diagnosis o E-mail: tmaongart@mahidol.ac.th Tel:/ Fax: 0 2643 5601 ext. 1831



Ms. Kanthinich Thima Medical Science Associate Cert (Med Tech), BPH E-mail: tmktm@mahidol.ac.th Tel: ext 1831



Dr. Saengduen Moonsom Lecturer PhD (Molecular Genetics & Genetic Eng) Expertise: Protein biochemistry & structural biology, immunology, cell biology, molecular genetics & genetic engineering, toxin-host interaction. E-mail: tmsms@mahidol.ac.th Tel: 0 2306 9182-3; Fax: 02-6435601



Mr. Pongruj Rattaprasert BSc (Med Tech), MSc (Trop Med) E-mail: pongruj\_r@hotmail.com Tel: ext 1830



Mr. Amorn Lekkla Researcher BSc (Health Ed), MSc (Public Health) E-mail: tmalk@mahidol.ac.th Tel: ext 1831



Ms. Ruenruetai Udonsom Scientis BSc, DAP&E E-mail: udonsom@hotmail.com Tel: ext 9183



Ms. Chantira Suthikornchai Researcher BSc (Bio), MSc (Trop Med) E-mail: tmcst@mahidol.ac.th Tel: ext 9183



Mrs. Nontiya Sensiriwattana General Affairs Officer MBA E-mail: tmnsr@mahidol.ac.th Tel: ext 1830





The Department teaches Medical Protozoology in the Faculty's regular programs: DTM&H, MSc (Trop Med) and PhD (Trop Med).

- 3.1 The title of each student's ongoing research
- 3.2 Funding Agency
- 3.3 Students' name received the research fund

Current postgraduate students majoring in Protozo	ology
MSc (Trop Med)	2
PhD (Trop Med)	12
Total	14

#### **STUDENTS ONGOING 2009**

No.	Student Name	Course	Year	Country	Research Title	Advisor	Funding Agency
	Master's degree						
1.	Miss Chanyapat Nitatsukprasert	MSc	2005	Thailand	Detection of Human <i>Entamoeba</i> spp. from Surface and Waste Water Samples by Real-Time PCR Using Hybridization Probes	Assoc. Prof. Porntip Petmitr, PhD	-
2	Mr. Atcha Montree	MSc	2007	Thailand	Molecular Characteriazation of <i>Plasmodium falciparum</i> DNA Polymerase δ Small Subunit	Assoc. Prof. Porntip Petmitr, PhD	UDC (The Higher Education Commission
	Doctorate						
1.	Mr. Somphong Sithiprom	PhD	2000	Thailand	Isolation and characterization of DNA topoisomerase I from <i>Trichomonas</i> vaginalis	Assoc. Prof. Porntip Petmitr, PhD	UDC (The Higher Education Commission
2.	Miss Saranya Siribal	PhD	2002	Thailand	Molecular characterization of DNA helicase from <i>Plasmodium falciparum</i>	Assoc. Prof. Porntip Petmitr, PhD	The Royal Golden Jubilee PhD Program

No.	Student Name	Course	Year	Country	Research Title	Advisor	Funding Agency
3.	Miss Jitbanjong Toomphong	PhD	2002	Thailand	Comparative Study of Neosporosis and Toxoplasmosis in pregnant dairy cattle	Assoc. Prof. Yaowalark Sukthana, MD	The Royal Golden Jubilee PhD Program
4.	Mr. Aongart Mahittikorn	PhD	2003	Thailand	Study on <i>Toxoplasma gondii</i> Tachyzoite and Bradyzoite stage conversion reaction in experimental mice and human clinical specimens	Assoc. Prof. Yaowalark Sukthana, MD	The Royal Golden Jubilee PhD Program
5.	Miss Ruangrat Buddhirongawatr	PhD	2004	Thailand	Study of <i>Toxoplasma gondii</i> strain in Thai Domestic and Wild Felidaes	Assoc. Prof. Yaowalark Sukthana, MD	UDC (The Higher Education Commission)
6.	Mrs. Kanyanan Kritsiriwuthinan	PhD	2004	Thailand	Expression Profiles of <i>Plasmodium</i> <i>falciparum</i> in Response to Pyronaridine by DNA Microarray Analysis	Assoc. Prof. Porntip Petmitr, PhD	TGIST
7.	Mrs. Panadda Krairojananan	PhD	2005	Thailand	Molecular and functional characterization of C-type lectin in the midguts of <i>Anopheles dirus</i> for malaria transmission	Assoc. Prof. Porntip Petmitr, PhD	-
8.	Mr. Kamlang Chumpolbanchorn	PhD	2005	Thailand	Genetic Characterization of <i>Toxoplasma gondii</i> Isolates from Free-Range Chickens in Thailand	Assoc. Prof. Yaowalark Sukthana, MD	The Royal Golden Jubilee PhD Program
9.	Miss Rachatawan Chiabchalard	PhD	2005	Thailand	Molecular epidemiological study on Giardia duodenalis contamination in Thai vegetables	Assoc. Prof. Yaowalark Sukthana, MD	-
10.	Mr. Megha Raj Banjara	PhD	2005	Nepal	Molecular epidemiology of drug resistant <i>Plasmodium falciparum</i> malaria parasite in Nepal	Assoc. Prof. Porntip Petmitr, PhD	WHO
11.	Miss Jitlada Vasuvat	PhD	2007	Thailand	Biochemical and functional characterization of <i>Plasmodium</i> <i>falciparum</i> DNA polymerase δ catalytic subunit	Assoc. Prof. Porntip Petmitr PhD	The Royal Golden Jubilee PhD Program
12.	Mr. Khuanchai Koompapong	PhD	2007	Thailand	Identifying the Sources of Environmental Contamination by Cryptosporidium	Assoc. Prof. Yaowalark Sukthana, MD	The Royal Golden Jubilee PhD Program



#### 3.4 Training Course, Workshop, Meetings hosted

- National Level
  - 1. Workshop on "Intestinal Protozoa : Simple Diagnostic Tips" at Faculty of Tropical Medicine, Mahidol University
    - Group 1 : 18 20 March 2009 ; 62 participants
    - Group 2 : 25 27 March 2009 ; 64 participants
  - 2. Workshop on "The 6<sup>th</sup> Annual Diagnosis of Malaria as a Professional" at Faculty of Tropical Medicine, Mahidol University
    - Group 1 : 6 7 August 20089 ; 62 participants
    - Group 2 : 13 -14 August 2009 ; 63 participants

#### RESEARCH

#### 4.1 Current Research Activities

1. Molecular characterization of DNA polymerase  $\delta$  of *Plasmodium falciparum* and its role in DNA peplication and DNA repair

2. Molecular characterization of *Plasmodium falciparum* polynucleotide kinase

3. Molecular characterization of *Plasmodium falciparum* polynucleotide kinase and its role on DNA repair of malaria parasites

4. PCR assays for detection of *Toxoplasma gondii* in Thai commercial meat products

5. Detection of *Trichomonas vaginalis* infection in Thai Women by PCR and culture methods

6. *Toxoplasma gondii* genotyping in domestic and wild felids in Thailand

7. Genetic Characterization of *Toxoplasma gondii* in Thai Free-range Chicken

8. Molecular Epidemiological Study on Giardia Contamination in Thai Vegetables

9. Study of *Cryptosporidim* Contamination in waste water by FISH

10. Molecular Study on toxoplasmosis and neosporidiosis in Thai dairy cow

11. Molecular and immunohistochemistry studies on stage-specific tachyzoite and bradyzoite of *Toxoplasma* gondii

12. Comparation of the detection of *Toxoplasma gondii* antibody by Sabin-Feldman Dye Test and Indirect Fluorescent Antibody Test (IFAT) using *T. gondii* from cell culture and animal inoculation

13. Genotyping of *Giardia duodenalis* in Thai children at welfares located in and around Bangkok

#### 4.2 Linkages

#### 4.2.1 International linkages

1. Cross Cancer Research Institute, University of Alberta, Alberta, Canada

2. Department of Parasitology, School of Veterinary Science, Murdoch University of South Street, Murdoch, Western Australia.

3. Nuffield Department of Pathology, University of Oxford, John Radcliffe Hospital, UK Department of Parasitology and Tropical Hygiene, Heidelberg University, Germany.

4. Division of Enteric Infections, National Institute of Hygiene and Epidemiology, Hanoi, Vietnam.

5. Department of Environmental Health Sciences; Division of Environmental Health Engineering, Bloomberg School of Public Health, Johns Hopkins University, USA

#### 4.2.2 National Linkages

1. Inter-laboratory Network for Parasitic Immunology hosted by National Institute of Health, Department of Medical Sciences, Ministry of Public Health.

2. Project of making *Plasmodium* slides to distribute to all over the country for laboratory QC by the request of Department of Medical Sciences, Ministry of Public Health.

3. Environment Engineering and Management, Asian Institute of Technology, Thailand.

#### 4.3 Laboratory Services

1. Diagnosis of *Toxoplsma gondii* by Sabin-Feldman Dye Test

2. Diagnosis of intestinal protozoa by using special stain techniques

# DEPARTMENT OF SOCIAL AND ENVIRONMENTAL MEDICINE

Tel: 0 2354 9100-4 ext. 9178-9 Fax: 0 2306 9178-9 Website: http://www.tm.mahidol.ac.th/eng/tmse/tmse\_index.htm



Associate Professor Wijitr Fungladda Head of Department BSc (Medical Science), MD, DTM&H, MPH, DrPH Epertise: Epidemiological, social and behavioral aspects of malaria, leptospirosis, and other tropical diseases E-mail: tmvfd@mahidol.ac.th; Tel: ext 1561, 1685





Dr. Suwalee Worakhunpiset Deputy Head of Department (from 29 November 2010 to Present) BNS, MSc (Environ Tech), PhD (Trop Med) Expertise: Environmental toxicology, environmental management E-mail: tmstw@mahidol.ac.th; Tel: ext 1560



Assoc. Prof. Kamolnetr Okanurak BSc (Public Health), MA (Med Soc Sci), PhD (Med Anthropology) Expertise: Health seeking behavior, community participation in disease control, adherence to tuberculosis treatment E-mail: tmko@mahidol.ac.th Tel: ext 1689



Asst. Prof. Voranuch Wangsuphachart BSc, MSc (Trop Med), MS (Med Epidemiology), PhD (Med Epidemiology)

Expertise: Environmental epidemiology, water-sanitation and health linkages, health risk assessment, environmental health impact assessment, epidemiology and the internet E-mail: tmvvs@mahidol.ac.th; Tel: ext 1566 Assoc. Prof. Waranya Wongwit Deputy Dean for Education BSc (Bio), MS (Bio), PhO (Biochem) Expertise: Environmental toxicology, Determination of heavy metals in environmental and biological samples, biology of schistosome E-mail: tmwwg@mahidol.ac.th; Tel: ext 1680



Asst. Prof. Wanchai Phatihatakorn DVM, MPH Expertise: Environmental toxicology, environmental management E-mail: tmvpk@mahidol.ac.th Tel: ext 1568



Dr. Prapin Tharnpoophasiam Lecturer BSc (Med Tech), MSc (Toxicology), PhD (Trop Med) Expertise: Environmental toxicology, biomarker of environmental pollutants exposure, monitoring of water quality E-mail: tmpbw@mahidol.ac.th Tel: ext 1569

The Department of Social and Environmental Medicine, provides postgraduate courses leading to an MSc or PhD in Tropical Medicine. Specialization focuses on one of three tracks: Social Medicine, Environmental Health, and Environmental Toxicology. The research activities involve both laboratory and field investigations. Topics are concentrated on important public health problems of the country, including malaria, DHF, tuberculosis, and HIV. In addition, the staff of the Department conducted a laboratory study on the molecular biology of and has developed a diagnostic kit for detection of type-A influenza virus in humans and animals, which received research award for the year 2009 from the National Research Council of Thailand.

The Department conducts various kinds of laboratory investigations from circum-oval precipitin test for blood fluke infection to rapid detection of MDR-TB from clinical and environmental samples using molecular techniques. The Department is home to the Mollusk Museum where shell specimens of various medically important snail hosts are collected. This museum is considered to have one of the most extensive mollusk collections in the region. In 2009, several staff of the Department also participated in the Evaluation of the Malaria Control Program Round I in Lao PDR, and the Evaluation of National Access to Antiretroviral Program for People Living with HIV/AIDS in Thailand supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM). The Department revised the training package of international training course on Environmental Health Impact Assessment (EHIA), which will be organized in the year 2010.



Asst. Prof. Pongrama Ramasoota Deputy Dean for Research DVM, MPH (Urban Health), PhD (Veterinary Microbio) Expertise: Construction of antibody library for the development of avian influenza virus diagnostic test, using phage antibody technique, rapid detection of aerosal pathogenic bacteria (*M. tuberculosis* and *Ligionella*) using molecular techniques, epitope mapping of monoclonal antibody specific to *Burkoidoria pseudomallei* using phage display techniques E-mail: tmprt@mahidol.ac.th; Tel: ext 1565



Ms. Ampai Soros Lecturer BSc (Public Health), MSc (Environ Bio), MSc (Water and Env Res Management) Expertise: Environmental health, environmental management E-mail: tmasr@mahidol.ac.th Tel: ext 1567



Dr. Yanin Limpanont Lecturer Doctor of Science Expertise: Applied and medical malacology; reproductive study in mollusks; disease and parasite in fish and shellfish; pathology of shellfish diseases. E-mail: tmyanin@mahidol.ac.th Tel: 1567, 081-899-9869 Fax: 02-306-9179



Ms. Phunthira Pongsasakulchoti Senior Scientist BSc (Bio) Expertise: Snail cultures, Blood fluke and liver fluke infections, Impact of water resources development (snails of medical importance aspect) Tel: ext 2107



Mr. Jaremate Limsomboon Senior Medical Science Associate Cert (Med Sci Tech) E-mail: tmjls@staff2.mahidol.ac.th Tel: 2106



Mrs. Pusadee Sri-aroon Expert Scientist BSc (Bio), MA (Med & Hlth Soc Sci), Cert (Malacological Subjects and Techniques) Expertise: Malacology, Tropical Diseases and Health Social Science E-mail: tmpsa@mahidol.ac.th Tel: ext 1563



Mr. Phiraphon Chusongsang Scientist MSc (Public Health), BSc (Health) Epertise: Blood fluke, Epidemiology, Tropical diseases and health social science geographical information system E-mail: tmpcs@mahidol.ac.th Tel: ext 2106



# Students working on research for thesis (1 January – 31 December 2009)



Mr. Rungwit Mas-ngammueang Expert Researcher BA (Pol Sci), BA (Thai Studies, Hons), MA (Med & Hth Soc Sci), Cert (Technician), Cert (Social Sciences Research) Expertise: Social science and medicine E-mail: tmrmn@mahidol.ac.th Tel: ext 1687



Mrs. Yupa Chusongsang Scientist MSc (Public Health), BEd (Science, Bio), Cert (Medical Science) Expertise: Parasitology, Liver fluke infection (*Opisthorchis viverrin*), Snail cultures, Public health problems from water resources development, irrigation system E-mail: tmycs@mahidol.ac.th Tel: ext 2105



Mrs. Suphischa Satsamai General Affairs Officer BEd (Library Science) E-mail: tmckl@mahidol.ac.th Tel: ext 1564



Dr. Pannamthip Pitaksajjakul Lecturer PhD (Trop Med) Expertise: Molecular biology, environmental microbiology E-mail: pannamthip@yahoo.com, tmpts@ mahidol.ac.th Tel. (66-2) 3549100-2 ext. 2042, Fax (66-2) 643-5585



Mr. Wiwat Wanarangsikul Researcher BPH (Public Health Admin), MA (Med & Hlth Soc Sci), Cert (Junior Health Worker) Expertise: Human behavior, ethnomedicine and local wisdom in health E-mail: tmwsl@mahidol.ac.th Tel: ext 1688



Mr. Prasasana Charoenjai Medical Science Associate BSc (Pol Sci), Cert (Med Sci Tech) Tel: ext 1562, 2107

	Name	Thesis Title
1.	Miss Rungrawee Tipmontree	Health promotion program for malaria prevention: utilization of insecticide- treated nets in multicultural community, Kanchanaburi Province
2.	Dr. Jaturong Wongsanit	The risk assessment of nitrate contaminate ion in groundwater using geographic information system
3.	Miss Pannumthip Pitaksajjakul	Construction of phage antibody library specific to H5N1 avian influenza virus
4.	Miss Nitchaphat Kunsakorn	Assessing in utero exposure to organophosphate pesticides among Thai women farmworkers
5.	Ms. Somsiri Decharat	Heavy metals exposure of nielloware workers a health risk assessment in Muang District, Nakhon Si Thammarat Province
6.	Mr. Patthanasak Khammaneechan	Social impact assessment of central healthcare waste incinerator project in Yala province
7.	Dr. Don Buddhinda Rubasinghe	A case control study of environmental and behavioural risk factors of acute diarrhoea and its economical impact, in an agricultural community, at Moh Area Girandurukotte, Sri Lanka
8.	Dr. Chandrasiri Palie Pitiye Arambe Anuruddha	A case control study on environmental sanitation deficit and the diarrheal disease in semi urban community, Pathumthani province, Thailand
9.	Maj. Jittima Hirunrussamee	Ongoing proposal development
10.	Miss Jongkol Sankote	Ongoing proposal development

# Source of research funding for students

- Thailand Research Fund
- University Development Committee, Ministry of Education
- Thailand International Cooperation Agency
- Faculty of Tropical Medicine, Mahidol University

#### Students with scholarships

	Name	Country	Grant	
PhD				
1.	Miss Rungrawee Tipmontree	Thailand	The Royal Golden Jubilee PhD. Program, Thailand Research Fund	
2.	Miss Pannumthip Pitaksajjakul	Thailand	PhD Strategic Scholarship for Frontier Research Network (Sandwich	
			Program), Commission on Higher Education	
3.	Miss Nitchaphat Kunsakorn	Thailand	University Development Committee (UDC) Scholarship	
4.	Ms. Somsiri Decharat	Thailand	University Development Committee (UDC) Scholarship	

#### MSc

5. Dr. Don Buddhinda Rubasinghe	Sri Lanka	Thailand International Cooperation Agency (TICA)
6. Dr. Huynh Ngoc Son	Vietnam	Thailand International Cooperation Agency (TICA)
7. Miss Pikhul Tipkrua	Thailand	TRF Master Research Grants (TRF-MAG)

#### RESEARCH

# Outstanding research/activities Collaboration with other institutes

- 1. University of Osaka, Japan
- 2. University of Brescia, Italy
- 3. NCCRN-S, Switzerland

- 4. Ministry of Public Health, Thailand
- 5. Faculty of Veterinary Medicine, Kasetsart University, Thailand
- 6. Asian Institute of Technology

#### **Services**

	Services	Responsible Person
	1. Circumoval Precipitin test for serodignosis of human	Head of the Department,
	Schistosomiasis japonicum	Mr. Jaremate Limsomboon
	<ol> <li>Rapid detection of MDR-TB from clinical and environmental sample using molecular techniques</li> </ol>	Asst. Prof. Pongrama Ramasoota
-	3. Production of blood fluke and liver fluke specimens	Mrs. Pusadee Sri-aroon







#### **AWARD**





นชิบอดีที่เฉพาะกับโรคเขตร้อนโดยใช้วิธีการแสดงโปรดีนบนพ

Assistant Professor Dr. Pongrama Ramasoota and his team received a **"Good" level award for the research** entitled **"Production of antigens and antibodies specific to tropical diseases by protein expression on phage surface"** from The National Research Council of Thailand (NRCT) on February 2, 2010 for the annual "Inventor Day" 2010: Outstanding Researcher Awards, Research Awards, and Thesis Awards for the Year 2009 and the Invention Award of 2010. The mentioned research would give Thai researchers the necessary knowledge base to domestically produce diagnostic kits, allowing physicians to diagnose diseases quickly and make timely choices for treatment, thereby reducing the future expense of importing diagnostic reagents by millions of baht. For this diagnostic kit that the research team has developed , it would take only around 30 minutes to find out which strain of type-A influenza infects the subjects by using discharges such as nasal mucus, urine, feces, or saliva from humans or animals suspected of being infected with the virus. The discharge would be mixed with the solutions in the structured ratio, and then the mixture would be dropped on the sample well. After waiting a short time for the result, the patient would be able to receive treatment in a timely manner.

#### BOOKS

- 1. Ramasoota P. Environmental Management. 2009. ISBN: 978-974-11-1138-4. (In Thai)
- Mas-ngammueng R. Human, Community and Health: Concepts and Methodology. Bangkok: O.S. Printing; 2009. ISBN: 978-974-11-1179-4. (In Thai)

# DEPARTMENT OF TROPICAL HYGIENE

#### Tel: 0 2306 9188-9 Fax: 0 2644 4436 E-mail: headtmhg@mahidol.ac.th



Asst. Prof. Jaranit Kaewkungwal Head of Department BSc, MEd, MA, PhD (Applied Stats & Program Evaluation) E-mail: tmjkk@mahidol.ac.th Tel: ext. 9188





Dean

Tel: ext. 1695

Assoc. Prof. Pratap Singhasivanon

E-mail: tmpsh@mahidol.ac.th

MBBS, DTM&H, MPH, DrPH (Epidemiology)

Dr. Saranath Lawpoolsri Deputy Head of Department MD, DTM&H, PhD (Epidemiology) E-mail: tmslw@mahidol.ac.th Tel: ext. 1606



Prof. Srivicha Krudsood BSc, MD, DTM&H, MSc, Thai Board in Internal Medicine, PhD (Trop Med) E-mail: tmsks@mahidol.ac.th Tel: ext. 1421



Dr. Natthanej Luplerdlop Lecturer MD, DTM&H, Dip (Aesthetic Dermatology), MSc (Advanced cosmetology), PhD (Anatomy) E-mail: tmnl@mahidol.ac.th Tel: ext. 9188



Asst. Prof. Kasinee Buchachart BSc (Microbio), MSc (Trop Med) E-mail: tmkbc@mahidol.ac.th Tel: ext. 9188



Ms. Pannamas Maneekarn Lecturer BSc (Nursing), MSc (Preventive Medicine) E-mail: tmpmk@mahidol.ac.th Tel: ext. 1684

he Tropical Hygiene Section was established as a unit within the original Faculty of Tropical Medicine when it was established in 1960. Since then, the section has been responsible for providing lectures and field training as part of the Diploma in Tropical Medicine and Hygiene (DTM&H) curriculum. Research activities of the section were then comprised mainly of epidemiological research related to public health problems among rural populations in Thailand. In 1974, along with the rapid growth of the faculty, the Tropical Hygiene Section was upgraded to Department status. At present, the Department is responsible for providing instruction and training to the masteral and doctoral degree programs in Tropical Medicine, in addition to the existing DTM&H course, and continuing its research tradition. Most of our current studies are in the field of epidemiology with the application of Geographical Information System (GIS) on various tropical diseases. The department is also involved in providing specialized short training courses on epidemiology, data analysis, and GIS. Furthermore, the department has direct responsibility in managing the Rajanagarindra Tropical Disease International Centre (RTIC) located in a malaria-endemic rural community along the Thai-Myanmar border in Suan Phung District, Ratchaburi Province . For many years now the RTIC, through its malaria clinic, takes pride in its continuous delivery of free and quality health services to local residents.

The core functions of the department are the graduate program and short course training on epidemiology and biostatistics combining with research studies, ranging from molecular biology to clinical field work, which contribute to the advancement of knowledge-based health sciences. The department has been recognized for a variety of research studies, which have been published and widely cited, locally and internationally. Topics of these publications include disease sequencing, clinical trial, geo-spatial epidemiology, community study, as well as statistical modeling.

This is due to the fact that faculty members and students have access to the well-equipped department laboratory and wellestablished cohorts in selected field study sites to conduct their own research within their areas of interest. Several international short training courses have been offering throughout the year, including courses in biomedical and geographical informatics, and biostatistics. Besides the current graduate degree focusing mainly in tropical medicine epidemiology, the department is in the process of moving forward to offer courses in zoonotic epidemiology, public health informatics, and global health arena.



Mr. Irwin Fernandez Chavez Lecturer MSc (Epidemiology) E-mail: fricv@mahidol.ac.th Tel: ext. 1694



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Ms. Chotima Charusabha Research Officer BSc (Computer Sci) E-mail: tmccs@mahidol.ac.th Tel: ext. 9188



Ms. Pimphen Charoen Scientist MSc (Math) E-mail: p.charoen@imperial.ac.uk Tel: ext. 9188



Ms. Muntana Nakmaun Medical Science Technician Tel: ext. 9188



Dr. Wirichada Pan-ngum Lecturer PhD (Infectious Diseases) E-mail: tmwpn@mahidol.ac.th Tel.: 0 2306 9188 Fax.: 0 2644 4436



Mr. Wanchai Maneeboonyong Researcher BEd (Gen Science), MPH (Infectious Diseases) E-mail: tmwmn@mahidol.ac.th Tel: ext. 1694



Mr. Prasert Rakmanee Research Assistant BSc (Environ Sci), MSc (Trop Med) E-mail: tmprn@.mahidol.ac.th Tel: ext. 1694



Asst. Prof. Supalarp Puangsa-art Scientist BSc (Agriculture), BA (Poli Sci), MSc (Trop Med), MSc(Biostats) E-mail: tmspa@mahidol.ac.th Tel: ext. 1686



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Mr. Nipon Thanyavanich Research Assistant BSc (Health Ed), BA (Poli Sci), MSc (Infectious Diseases) E-mail: tmnty@mahidol.ac.th Tel: ext. 1686



Ms. Suntaree Sangmukdanun Research Officer BSC (Bio) E-mail: tmssd@staff2.mahidol.ac.th Tel: ext. 1686



Mrs. Kamornwan Chaipakdee Secretary, General Affairs Officer BEd (Social Studies) E-mail: tmkcp@.mahidol.ac.th Tel: ext. 9188



Mrs. Natefa Rakmanee Medical Science Technician BSc (Health Ed), MSc (Trop Med) E-mail: tmnut@.mahidol.ac.th Tel: ext. 1690



Mr. Samarn Sonklom Animal Caretaker Tel: ext. 1694





#### ACADEMIC

#### **Activity Highlights**

#### Academic Consultation and Training Services

In addition to the teaching the regular cirriculum, the department also performs extracurricular academic services. We provide lectures and consultations regarding research methodology, epidemiology, statistics, geographical information system, as well as clinical management issues related to malaria and other tropical diseases, within Mahidol University, other institutions and to the general public.

#### **Laboratory Service**

We provide the following laboratory services:

- (1) Dengue diagnosis (using proteomics, transcriptomics, immunological and virological cultivation) and viral characterization.
- (2) Surrogate marker detection for Dengue infected samples.
- (3) In vitro characterization of anti-aging properties of Thai medicinal plants

#### **Community Services**

The Department of Tropical Hygiene also takes part in several projects dedicated to community service. Besides several training programs and research works, the department provides health care services at Rajanagarindra Tropical Disease International Centre (RTIC), one of the field research centers of the Faculty of Tropical Medicine located in Suan Phung district of Ratchaburi province. The Centre has been operated under The Tropical Disease Trust Fund since 1998 when Her Royal Highness Princess Galyani Vadhana Krom Luang Naradhiwas Rajanagarindra kindly presided over the opening ceremony of the centre.

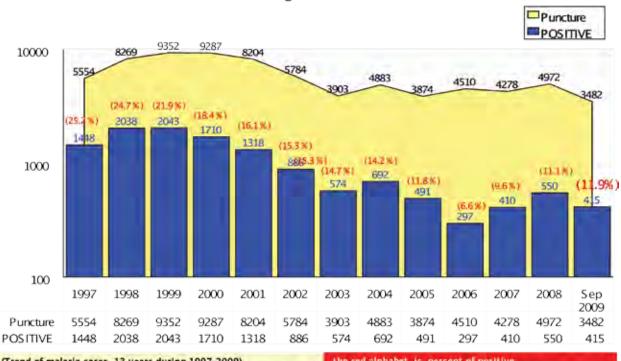




RTIC was established within the heart of a malaria endemic area along the Thai-Myanmar border. With a high incidence of malaria and other tropical diseases, the free-ofcharge services at this centre greatly benefit the local people by providing diagnostic services and primary medications and treatments. For more information about RTIC, please visit the website at www.tm.mahidol.ac.th/en/rtic/rtic\_index.htm.

#### Education

The Department is also responsible for providing lectures and training to students in the DTM&H, MSc, and PhD programs.



GRAPH Blood Slide Examination in all area MALARIA during 1997 - 2009

(Trend of malaria cases 13 years during 1997-2009) -Yellow area is number of blood slide examination or blood puncture -blue bar is number of positive blood slide Examination of malaria

the red alphabet is percent of positive Highest in 1997 =25.2% and gradually decline Year by year until 6.6% in year2006 but year 2007 increase to 9.6% last year increase to 11.1%



#### Alumni Year of Graduation : 2009

#### MSc

 Student Name:
 Mr. Dilok Tongsukh

 Thesis Title:
 TB INFECTION AND TREATMENT AMONG REFUGEES IN THAMHIN CAMP, RATCHABURI PROVINCE, THAILAND

 Thesis Advisor:
 Assoc. Prof. Pratap Singhasivanon

#### PhD

Student Name : Thesis Title : Thesis Advisor :	Ms. Rie Takeuchi FACTORS RELATED TO REAPPEARANCE OF <i>PLASMODIUM VIVAX</i> MALARIA Assoc. Prof. Pratap Singhasivanon
Student Name : Thesis Title :	Mr. Archin Songthap ACCEPTABILITY OF HPV VACCINE IN ADOLESCENTS, EDUCATORS, PARENTS, AND HEALTH CARE PROVIDERS: ASSESSMENT AND EDUCATIONAL TOOLS
Thesis Advisor :	Asst. Prof. Jaranit Kaewkungwal
Student Name : Thesis Title :	Mrs. Putri Chairani H. Eyanoer THE SPATIAL AND TEMPORAL DISTRIBUTION OF HUMAN AVIAN INFLUENZA INFECTION IN RELATION TO SURVEILLANCE IMPLEMENTATION IN INDONESIA
Thesis Advisor :	Asst. Prof. Jaranit Kaewkungwal
	Mr. Tawee Saiwichai
Thesis Title :	THE EFFECT OF GREEN TEA EXTRACT ON THE SERUM LEVEL OF HIGH MOBILITY GROUP BOX-1 (HMGB1) PRO-INFLAMMATORY CYTOKINE IN CIGARETTE SMOKE INHALATION RAT MOREL
Thesis Advisor :	Assoc. Prof. Pratap Singhasivanon
Student Name : Thesis Title :	Ms. Waranee Boonchuaylier DETECTION OF ADVERSE DRUG REACTION SIGNAL IN THE THAI FDA DATABASE: COMPARISON BETWEEN REPORTING ODDS RATIO AND BAYESIAN CONFIDENCE PROPAGATION NEURON NETWORK METHOD
Thesis Advisor :	Assoc. Prof. Pratap Singhasivanon

# INTERNATIONAL TRAINING COURSE RESEARCH PROJECTS Geographical Information System (GIS) Short Course for 1. A Phase III Trial of Aventis Pasteur live recombinant AsiaFluCap Work Package 3. July 9-10, 2009. Participants: 1. A Phase III Trial of Aventis Pasteur live recombinant ALVAC-HIV (vCP 1521) priming with VaxGen gp120 B/E (AIDSVAX® B/E) Boosting in HIV-uninfected Thai-Adults (Data Management) Grant: The Henry M. Jackson Foundation for

Military Medicine, Inc.

Annual Review 2010 - 2011 Faculty of Tropical Medicine, Mahidol University

- 2. A Phase III Trial of Aventis Pasteur live recombinant Thai adults
  - Grant: Walter Reed Army Institute of Research
- 3. Proteomics characterization of *Aedes aegypti* mosquitoes related to Dengue viruses infection Grant: Bourse Scholarship IRD, France
- 4. A Phase II, randomized, open label, multicentre study to assess the antimalarial efficacy and safety of arterolane (RBx11160) maleate and piperaquine phosphate coadministration and Coartem in patients with acute uncomplicated *Plasmodium falciparum* malaria Grant: Ranbaxy Laboratories Ltd., India
- 5. Evaluation of fosmidomycin, when administered concurrently to adult subjects with acute uncomplicated *Plasmodium* malaria Grant: Jamaa Pharma GmbH, Hamburg, Germany
- Serotype specific of dengue viruses affected to the Endothelial integrity trigger through the protese enzyme Over production by infected dendritic cells Grant: The Thailand Research Fund
- 7. Field based study of reappearance *Plasmodium vivax* malaria cases in the area near Thai-Myanmar border Suanphung Ratchaburi Province Grant: Faculty of Tropical Medicine
- 8. Spatial-temporal distribution and determinants of malaria along the Thai-Myanmar border Grant: University of Maryland, Baltimore and Mahidol University

9. Epidemiology and risk factors of *Pediculosis capitis* in 5 primary schools near the Thai-Manmar border in Ratchaburi Province, Thailand

Grant: Faculty of Tropical Medicine

10. A clue of intestinal parasitic infection and its association among risk factors in northeast of Thailand

Grant: Faculty of Tropical Medicine

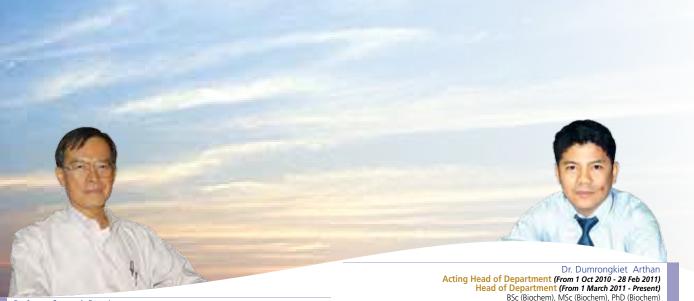
#### **INTERNATIONAL LINKAGES**

- Dorothée MISSE G.E.M.I., IRD/CNRS Montpellier, France
- Erik (Rik) Thompson, PhD, Head, VBCRC Invasion and Metastasis Unit, University of Melbourne Department of Surgery and St. Vincent's Institute of Medical Research, Director of Research, Bernard O'Brien Institute for Microsurgery, Australia
- Chantal Ripoll, INSERM, Immunohistochemistry Unit, Montpellier, France
- Hans Yssel, INSERM, Immunophysiology Unit, Montpellier, France
- The Rockefeller Foundation



# **DEPARTMENT OF** TROPICAL NUTRITION & FOOD SCIENCE

Tel: 0 2354 9100-4 ext 9174-5; Telephone/Fax: 0 2644 7934



Professor Songsak Petmitr Head of Department (From 1 Oct 2009 - 30 Sep 2010) BEd (Secondary School), MSc (Chemistry Education), PhD (Biochemistry) Expertise: Molecular biology, molecular carcinogenesis E-mail: tmspm@mahidol.ac.th, headtmnu@mahidol.ac.th Tel: 9175

n 1966, the Department of Tropical Nutrition and Food Science was established with the aims to teach and train postgraduate students, conduct scientific research, and provide nutritional information as well as laboratory services in regard to nutritional disorders.

Presently, the Department of Tropical Nutrition and Food Science, with Assoc. Prof. Songsak Petmitr serving as the Head of Department, comprises of 11 academic staff members, 3 supportive staff members and 6 consultants. The academic staff is responsible for teaching a portion of the cirriculum for the international post graduate programs, the Master and Doctor of Philosophy in Tropical Medicine program, and the Diploma in Tropical Medicine and Hygiene (DTM&H) program. We work with the objectives to achieve and update the knowledge of relevant scientific theories, methods, techniques and research contributed to the fields of nutrition, health, medical sciences, and molecular biology. In addition, the Deparment has established international linkages with University of Potsdam and Justus Liebig University in Germany, York University in Canada and Brescia University in Italy, all of which offer educational benefits for postgraduate students in terms of international cooperation encouragement. We also help connect students to scholarship funds, such as the Royal Golden Jubilee.

The Department has several ongoing collaborative research projects, topics of which include malnutrition, nutritional problems in vulnerable groups, obesity, dislipidemia, coronary heart diseases and cancer. Nutrigenomics and molecular carcinogenesis of cancers in Thai patient focusing on breast cancer, cervical cancer, cholangiocarcinoma, colorectal cancer and hepatocellular carcinoma are also investigated. Furthermore, we also conduct extensive studies on food and medicinal plants.

Head of Department (From 1 March 2011 - Present) BSc (Biochem), MSc (Biochem), PhD (Biochem) Expertise: Protein Biochemistry E-mail: tedat@mahidol.ac.th Tel: 1583-4



Assoc. Prof. Karunee Kwanbunjan **Deputy Head of Department** (From 16 Nov 2006 - 30 Sep 2010) BSc (Bio), MSc (Trop Med), Dr oec troph (Nutrition and Food Sciences) Expertise: Biochemical nutrition, nutritional epidemiology E-mail: tmkkb@mahidol.ac.th; Tel: 1583-4



Asst. Prof. Talabporn Harnroongro BSc (Med Tech), MSc (Trop Med), Dr oec troph (Nutrition and Food Sciences) Expertise: Community nutrition, biochemical nutrition E-mail: tmthr@mahidol.ac.th Tel: 1583-4



Dr. Amornrat Aroonnual BSc (Biotech), PhD (Biotech) Expertise: Molecular biology of food, microbiology and food safety E-mail: tmaar@mahidol.ac.th Tel: 0-2354-9100-19, Ext. 1587 Fax: 0-2644-7934



Assoc. Prof. Rungsunn Tungtrongchitr BSc (Medi Tech), MSc (Trop Med), PhD (Trop Med) Expertise: Molecular nutrition, nutritional epidemiology, biochemical nutrition E-mail: tmrtg@mahidol.ac.th Tel: 1583-4



Dr. Sarunya Kaewprasert Deputy Dean for Policy and Quality Development BSc (Biotech), MAgr (Nutritional Biochem), PhD (Nutritional Biochem) Expertise: Nutritional Biochemistry E-mail: tmskp@mahidol.ac.tl Tel: 1583-4



Dr. Pornrutsami Jintaridhi BSc (Nursing), MSc (Nutrition), PhD (Biochemistry) Expertise: Molecular biology E-mail: tmpjt@mahidol.ac.th Tel: 1583-4

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Ms. Apanchanid Thepouyporn Researcher BSc (Agriculture), MSc (Biopharmaceutical Sciences) E-mail: tmato@mahidol.ac.th Tel: 1583-4



Ms. Kriyaporn Songmuaeng Scientist BSc, MSc (Environ Bio) Expertise: Radioisotopes in medical science and biology E-mail: tmksm@mahidol.ac.th Tel: 1583-4



Ms Saijai Paisiri General Affairs Officer BA (General Management) E-mail: tmspr@mahidol.ac.th Tel: 1582-5



Mrs. Wanyarat Nakosiri Scientist BSc, MSc (Trop Med) Expertise: Radioisotopes in medical science and biology E-mail: tmvta@mahidol.ac.th Tel: 1583-4



Mr Somchai Puduang Medical Science Associate Cert (Med Tech) E-mail: Somechaitropmed@hotmail Tel: 1583-4

Moreover, the Department is also responsible for technical services and nutritional information distributed to the public. We run enzyme tests to determine vitamin B1, B2, and B6 levels in human red blood cells to effectively serve the requirements from both governmental and private-sector hospitals and institutions. Every year, we see an increase in the number of customers for such tests. Additionally, we provide short training courses for food safety, food control, and an annual course entitled "Methods in Nutritional Assessment and Research," which is aimed to educate professionals working in the nutrition field. We prepare the participants to apply the knowledge from our training courses to routine work in hospitals, school canteens, health centers and also initiate their own research plan.

Our staff members are regularly invited to be guest lecturers, co-advisors, or external examiners for undergraduate and graduate students at many prestigious institutions, such as Rangsit University, Khon Kaen University, Mae Fah Luang University, Thammasat University, Srinakarintarawiroj University and the Faculty of Science at Mahidol University. We also frequently serve as peer reviewers for various renowned journals, both Thai and international.

#### TEACHING

- There are 9 students are currently working in research.
- There are 2 students currently funded by scholarships:

#### Mr. Manus Kotepui

Office Of The Higher Education Commission.

#### **Miss Cheowanee Chupeerach**

The Royal Golden Jubilee PhD program.

#### Highlight

Our primary goals are teaching and training postgraduate students, conducting innovative scientific research, and providing laboratory services to investigate and diagnose nutritional disorders. In addition to the leading research in the field of nutritional science, the Department teaches postgraduate students in the international courses leading to the postgraduate DTM&H, MSc (Trop Med) and PhD (Trop Med). In 2009, we had 9 students enrolled in the MSc and PhD programs in Tropical Medicine, including 1 PhD student and 1 MSc student from Faculty of Dentistry, 2 MSc students from Faculty of Public Health, and 2 BSc students from Suan Dusit Rajabhat University working in the Department. We are also responsible for providing a variety of technical services and distributing information about proper nutrition to the community.

#### **Training Course**

The Department of Tropical Nutrition and Food Sciences organized two different sessions of a four-day workshop on "Methods in Nutritional Assessment and Research" on the dates of 27-30 April and 12-15 May 2009, which were held at the Faculty of Tropical Medicine at Mahidol University. There are 60 participants enrolled in this courses, including two practicing clinicians from Lao PDR. The objective of this course was to provide knowledge to lecturers, researchers, and nutritionists on the topic of current protocols in nutrition science research, ranging from anthropometric and biochemical assessments to new computer programs capable of dietary assessment.





Dr. Anong Kitjaroentham Researcher BSc (Med Tech), MSc (Trop Med), PhD (Biochem) Expertise: Molecular nutrition E-mail: tmak@mahidol.ac.th Tel: 1583-4



Mrs Yaovamarn Chantaranipapong Medical Science Associate Cert (Med Sci Lab Asst) Tel: 1583-4

#### RESEARCH

#### **Current Research Activity**

- Novel PNLIPRP3 and DOCK8 Gene Expression and Prognostic Implications of DNA Loss on Chromosome 10q25.3 in Hepatocellular Carcinoma. Asian Pacific of Cancer Prevention. 2009;10: 501-506.
- 2. Serum Leptin Levels and Body Composition in Obese Thai Children. *Southeast Asian J Trop Med Public Health*. 2009; 40: 544-552.
- Seasonal Levels of the Major American Cockroach Allergen Per a 9 (Arginine Kinase) in Bangkok and Their Relevance for Disease Severity. *Asian Pacific* J of Allergy and Immunology. 2009;27:1-7.
- Partial Purification and Characterization of Trichomonas Vaginalis DNA Topoisomerase II. Southeast Asian J Trop Med Public Health. 2009; 40 (5): 877-885.
- Polymorphism of glutathione S-transferase Omega gene: association with risk of childhood Acute lymphoblastic leukemia. J Cancer Res Clin Oncol. 2009; 135: 673-8
- Resistin Gene Polymorphism And Susceptibility to Type 2 Diabetes in Thais. *J Clin Biochem Nutr*. 2009; 44: 104-110.
- Characteristics and risk factors of *Plasmodium* falciparum malaria in Eastern and Central Nepal. Kathmandu University Medical Journal 2009; 28: 378-382.

#### International Linkages

The Department of Tropical Nutrition and Food Science, represented by Assoc. Prof. Rungsunn Tungtrongchitr, collaborated with 2 external academic professors to assist with the research training for PhD. students under the Royal Golden Jubilee PhD program. These professors were Prof. Florian J. Schweigert of the Department of Physiology and Pathophysiology at the University of Postdam in Germany and Assoc. Prof. Gary Sweeney of the Department of Biology, at York University in Toronto, Canada.

#### Local Cooperation

The Department has collaborated with several local institutes such as:

National Cancer Institute of Thailand Pramongkutklao College of Medicine Faculty of Medicine, Khon Kaen University Faculty of Medicine, Siriraj Hospital Faculty of Science, Mahidol University Faculty of Medicine and Faculty of Allied Health Science, Chulalongkorn University, Chulabhorn Research Institute PTT Exploration & Production & Public Company Limited

#### Academic Service

The Department provides laboratory tests to determine Vitamin B1, B2, and B6 levels in red blood cells through a novel enzymatic method.

#### AWARD

Young Scientist Travel Award Dr. Pornrutsami Jintaridhi Genome Institute of Singapore 25 August 2009

#### **TEXT BOOKS**

Associate Professor Rungsunn Tungtrongchitr. *Obesity; Transitional changes in nutrition and Biochemistry*. Department of Tropical Nutrition and Food Science.



Fig. 1 Participants in Workshop on Methods in Nutritional Assessment and Research in 2009.



Fig. 2 Demonstrating an Antropometric Assessment Test in Fig. 3 one of the 2009 training courses.



**ig. 3** Demonstrating proper arm span measurement procedure.



Fig. 4 Demonstrating how to measure tricep skinfold Fig. 5 thickness.



**g. 5** Body-fat analyzer scale, one piece of equipment used in the course.



Fig. 6 How to use body-fat analyzer scale correctly.



Fig. 7 Demonstrating proper knee height measurement.



**Fig. 8** One of the example meals used during a food nutrition analysis.



**Fig. 9** Computer training on a new nutritional assessment program.

### DEPARTMENT OF TROPICAL PATHOLOGY

### Telephone: 0 2360 9185, 0 2354 9100-4 ext. 1670 Fax: 0 2306 9184



Associate Professor Ensit Polypointati Head of Department DVM, PhD (Trop Med) Expertise: Electronmicroscopy, pathology of malaria E-mail: tmepp@mahidol.ac.th Tel: 1621



Asst. Prof. Urai Chaisri Deputy Head of Department BSc (Bio), MSc (Trop Med), PhD (Trop Med) Expertise: Electronmicroscopy, immunology E-mail: tmuch@mahidol.ac.th Tel: 1628, 9185



Dr. Gareth Turner Nuffield Department of Pathology, The John Radcliff Hospital,



Miss Rungrat Nintasen Scientist BSc (Microbio), MSc (Microbio) Expertise: Laboratory techniques for histopathological, cytological investigations and molecular microbiology Email: n\_rungrate@yahoo.com Tel: 1678



Assoc. Prof. Mario Riganti Consultant MD, Dip (American Board of Pathology) Field: General pathology and tropical pathology, gnathostomiasis Tel: 1674



Assoc. Prof. Yaowapa Maneerat DVM, PhD (Pathobiology) Expertise: Tissue culture, immunohistochemisty E-mail: tmymn@mahidol.ac.th Tel: 1629, 9185



Miss Supattra Suwanmanee Scientist BNS, MSc (Anatomy) Expertise: Electronmicroscopy E-mail: SSupattra811@hotmai.com Tel: 9185

The Department of Tropical Pathology is one of the eleven departments of within the Faculty of Tropical Medicine at Mahidol University. The Department is dedicated to delivering high-quality teaching to post graduate students, conducting innovative researche, and providing a variety of academic services. The Department comprises of three units: the Diagnostic Pathology Unit, the Electron Microscopy Unit and the Tissue Culture and Immunocytochemistry Unit.

The Department has a large collection of specimens of tropical diseases, including many rare specimens. Recently, the Department of Tropical Pathology was awarded a grant to establish a Reference Centre for Malaria Pathology, which includes teaching resources for malaria and its pathogenesis, a collection of malaria autopsy cases, and a comprehensive database of research on malaria pathology and pathogenesis. This reference centre opened in 2010.

The Department regularly contributes novel research findings to the world of science in the form of high-quality publications as well as presentations at international conferences.



Asst. Prof. Benjanee Punpoowong BSc (Bio), MSc (Trop Med) Expertise: Laboratory techniques for histopathological and cytological investigations E-mail: tmbpp@mahidol.ac.th Tel: 1678



Prof. David JP Ferguson Nuffield Department of Pathology, The John Radcliff Hospital



Assoc. Prof. Parnpen Viriyavejakul BSc (Genetics), MD, DTM&H, MCTM, Dip (Thai Board of Anatomical Pathology), PhD Expertise: Anatomical pathology, opportunistic infections in AIDS, tissue cytokines in AIDS, Pathogenesis of malaria E-mail: tmpvr@mahidol.ac.th, parnpen123@yahoo.co.uk Tel: 1677



Mr. Vasant Khachonsaksumet Medical Science Associate BSc (Bio), MSc (Infectious Diseases) E-mail: tmvku@mahidol.ac.th Tel: 1676



Mr. Panote Prapansilp Assistant Lecturer MD (Hons) Expertise: Anatomical pathology, malaria pathology and pathogenesis E-mail: pantoe.prapansilp@ndm.ox.ac.uk Tel: 1670



Mrs. Wimon Ngoenkong BEd (Psychology and Guidance) E-mail: headtmpt@mahidol.ac.th Tel: 1670

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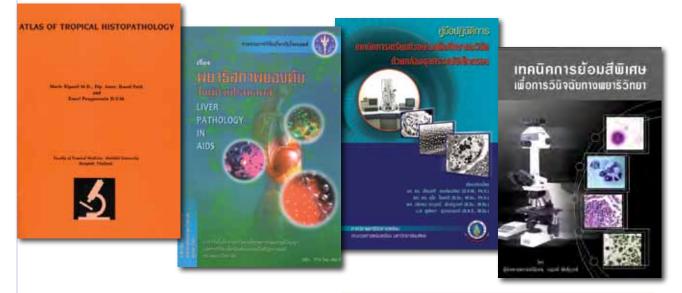
### **EDUCATION**

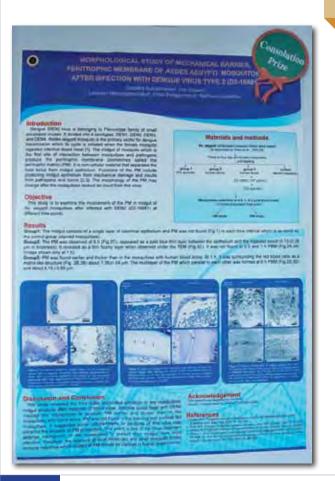
The Department taught as part of the Diploma in Tropical Medicine and Hygiene (DTM&H), Master of Science and Doctor of Philosophy in Tropical Medicine programs. Training courses in tropical pathology, electron microscopy and histopathology were provided upon request.

In 2009, 10 students worked on PhD projects focusing on the pathogenesis and pathology of tropical diseases.

No.	Name	Student ID no.	Course	Advisor	Thesis title	Grant
1	Ms. Thanida Tangwanicharoen	4348095 TMTM/D	PhD	Asst. Prof. Urai Chaisri	Immunohisto- pathological studies of cytokine profiles in liver tissue of HIV-infected patients with opportunistic infections: a necropsy studies	The Royal Golden Jubilee PhD Program from Thailand Research Fund [TRF]
2	Ms. Pachuen Potup	4537226 TMTM/D	PhD	Assoc. Prof. Yaowapa Maneerat	induce Ig class switching	The Royal Golden Jubilee PhD Program from Thailand Research Fund [TRF], Swedish International Development Cooperation Agency (SIDA), The Co-operative Research Net-work (CRN)
3	Mr. Kraisorn Sappayatosok	4637687 TMTM/D	PhD	Asst. Prof. Urai Chaisri	Expression of NOS, VEGF, COX-2 and their clinico-pathological correlation in oral and para-oral squamous cell carcinoma	The Co-operative Research Net-work (CRN)
4	Ms. Navakanit Sachanonta	4637690 TMTM/D	PhD	Assoc. Prof. Emsi Pongponratn		The Royal Golden Jubilee PhD Program from Thailand Research Fund [TRF]
5	Ms. Jaiaue Wongtanachai	4637691 TMTM/D	PhD	Asst. Prof. Urai Chaisri	Effect of antimalarial drugs on <i>Plasmodium</i> <i>falciparum</i> : morphology, viability, and multification rate	Partial part from Faculty of Tropical Medicine
6	Mr. Kasem Somthana	4737533 TMTM/D	PhD	Assoc. Prof. Yaowapa Maneerat	Immunoglobulin class switch DNA recombination in human B-cell induced by <i>Gnathostoma</i> <i>spinigerum</i>	The Royal Golden Jubilee PhD Program from Thailand Research Fund [TRF]
7	Mr. Sumate Aumpawong	4836684 TMTM/D	PhD	Assoc. Prof. Emsi Pongponratn	Experimental cerebral malaria: pathogenesis of brain edema	Thailand Center of Excellence for Life Sciences (TCELS)
8	Ms. Ratchanok Kumsiri	4837564 TMTM/D	PhD	Assoc. Prof. Yaowapa Maneerat	Blood stage <i>P. falciparum</i> induce T cell independent B cell activation	The Research Assistantship (RA) scholarship, Faculty of Graduate Studies, Faculty of Tropical Medicine, Mahidol University and SEAMEO- TROPMED NETWORK

No.	Name	Student ID no.	Course	Advisor	Thesis title	Grant
9	Ms. Rungrat Nintasen	4937690 TMTM/D	PhD	Assoc. Prof. Yaowapa Maneerat	Vascular model for studying atherosclerosis by <i>Ex vivo</i> vein support system	The Royal Golden Jubilee PhD Program from Thailand Research Fund [TRF]
10	Mr. Chuchartd Punsawad	5138447 TMTM/D	PhD	Assoc. Prof. Parnpen Viriyavajakul	Pathologenesis of malaria	-





### RESEARCH

The majority of our research projects focus on histopathology, immunohistochemistry, immunocytochemistry and ultrastructural studies of tropical diseases, especially malaria and other parasitic and infectious diseases.

### **Current Research Activities**

- (1) A murine model of cerebral malaria, with particular emphasis on histopathology, immunohistochemistry and electron microscopy
- (2) Pathology, pathogenesis of severe malaria in human organs: ultrastructural studies and cytokine involvement
- (3) Vascular model for studying pathogenesis of atherosclerosis
- (4) Ig class switching induced by Plasmodium falciparum
- (5) Ig class switching induced by Gnathostoma spinigerum
- (6) Ultrastructural study of malarial parasites and the infected red blood cells after drugs treatment
- (7) Cytokine expression in HIV-positive and AIDS patients
- (8) Proteome of cancerous squamous cells in oral cavity and salivary gland tumor

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### **Research collaborations**

### In country

- Institute of Molecular Biology and Genetics, Mahidol University
- Faculty of Medicine, Siriraj Hospital , Mahidol University
- Faculty of Allied Health Science, Thammasat University, Rangsit Center
- Faculty of Dentistry, Chulalongkorn University
- Faculty of Dentistry, Srinakarinviroj University
- Department of Parasitology, Faculty of Medicine, Changmai University
- Rajavithi Hospital

### **International Linkages**

- Mahidol Oxford Tropical Medicine Research Unit
- Division of Electron Microscopy, Department of Cellular Pathology, The John Radcliff Hospital, The John Radcliff Hospital, Oxford University United Kingdom
- Department of Immunology, The Wenner Gren Institute, Stockholm University Sweden
- University of Liverpool, UK
- University of Sydney, Australia
- University of Leeds, UK

### Academic services

### Diagnostic Pathology Unit

We are equipped with a diagnostic pathology lab and experienced personnel to provide pathological diagnostic services of submitted specimen. Our pathologists are experienced in assisting clinicians with certain difficult diagnoses and clinical management problems that may arise. Services include, but are not limited to, histology, frozen sections, cytology, core biopsies and fine needle aspiration. We also perform autopsy to determine the causes of death upon request. We aim to create a pathological service with a reputation for excellence and reliability.

### **Electron Microscopy Unit**

The unit has facilities for Transmission Electron Microscopy (TEM) and Scanning Electron Microscopy (SEM). The unit was established in 1992, and has since been home to a constant production of research work, particularly in tropical diseases. The unit plays an important role in supporting ultrastructural microscopy analyses. We provide experience to students and researchers in the handling of highly technical equipment to support their research interests. We work to improve research capabilities of other institutions through electron microscopy services. We teach and provide training courses for post graduate students and researchers all year round.



AWARDS								
NO.	Name	Awards			Title			
1	Mrs. Supatta	Poster Presentation	Faculty of Tropical	Thailand	Morphological Study of Mechanical	November		
	Suwanmanee	Award	Medicine Mahidol		Barrier, Peritrophic Membrane of	4, 2009		
		Consolation Prize	University		Aedes Aegypti mosquitoes After			
			(JITMM 2009)		Infection with Dengue Virus Type 2			
					(D2-16681)			
2	Mr. Chuchard	Professor Emeritus	Faculty of Tropical	Thailand	The Most Outstanding Student of	June, 2009		
	Punsawad	Khunying Tranakchit	Medicine Mahidol		The Doctor of Philosophy in			
		Harinasuta Award	University		Tropical Medicine Class of 2009			

### **TEXT BOOKS**

- 1. Atlas of Tropical Histopathology
- 2. Manual of Specimen Preparation for Electron Microscopy Study
- 3. Special Stain Techniques for Diagnosis
- 4. Liver Pathology in AIDS, ISBN: 974-346-486-7





### DEPARTMENT OF TROPICAL PEDIATRICS

Telephone: 0 2354 9100-4 ext. 9190-1 Fax: 0 2354 9163 Website : http://www.tm.mahidol.ac.th/eng/tmpd/tmpd\_index.htm



Assoc. Prof. Chukiat Sirivichayakul Head of Department (From 1 Oct 2010 - Present) DTM&H Expertise: Pediatrics Email: tmcsw@mahidol.ac.th; Tel: 0 2354 9161



Assoc. Prof. Pornthep Chanthavanich DTM&H Expertise: Pediatrics Email: tmpct@mahidol.ac.th Tel: 0 2354 9161



Mr. Chanathep Pojjaroen-anant Scientist (Specialist) MSc (Trop Med) Expertise: Malaria, parasites Email: tmcpj@mahidol.ac.th Tel: 0-2354-9161



Mrs. Pataporn Wisetsing Scientist (Specialist) BEd Email: tmpws@mahidol.ac.th Tel: 0-2354-9161



Emeritus Prof. Arunee Sabchareon DTM&H Expertise: Pediatrics Email: tmasc@mahidol.ac.th Tel: 0 2354 9162



Dr. Weerawan Hattasingh Lecturer DTM&H Expertise: Pediatrics Email: tmwht@staff2.mahidol.ac.th Tel: 0-2354-9161



Asst. Prof. Watcharee Chokejindachai Deputy Head of Department (From 1 Oct 2010 - Present) PhD Expertise: Pediatrics, infectious and tropical diseases Email: tmwcj@mahidol.ac.th Tel: 0 2354 9161



Dr. Raweerat Sitcharungsi Lecturer DTM&H Expertise: Pediatrics Email: tmrsc@mahidol.ac.th Tel: 0-2354-9161



Assoc. Prof. Chukiat Sirivichayakul Deputy Head of Department (From 2006 - 30 Sep 2010) DTM&H Expertise: Pediatrics Email: tmcsw@mahidol.ac.th Tel: 0 2354 9161

Professor Krisana Pengsaa Head of Department

DTM&H

(From 1 Oct 2006 - 30 Sep 2010)

Expertise: Pediatrics Email: tmkps@mahidol.ac.th; Tel: 0-2354-9161



Asst. Prof. Kriengsak Limkittikul DTM&H Expertise: Pediatrics Email: tmklk@mahidol.ac.th Tel: 0-2354-9161

The Department of Tropical Pediatrics, Faculty of Tropical Medicine was founded on 18 February 1974. It is located on the 6th floor at the Bangkok Hospital for Tropical Diseases Building and Research Center Building.

The Department's vision is "To be the International Leader in Tropical Pediatrics". Its mission is providing knowledge in tropical pediatrics, either in the term informal or formal education.

The Department also provide medical services in the field of general and tropical pediatrics as well as conduct researches to gain knowledge in this field. Approximately 250 research projects has been conducted and published, mainly in the field of malaria, diarrhea and vaccine trial.

Currently, its most important research activities is dengue epidemiology and vaccine

trial.



Ms. Udomluk Thangtaweewaroaj General Affairs Officer BA (Medical Secretary) Email: tmutt@mahidol.ac.th Tel: 0-2354-9161





BM (Marketing) Tel: 0-2354-9161



Mrs. Santana Thamthai **General Affairs Officer** BM (Accounting) Tel: 0-2354-9161



Tipaporn Pimalai Scientist Assistant High Qualification Professional Certificate Email: tetpml@mahidol.ac.th Tel: 0 2354 9161





Mrs. Nathakan Narin Scientist Assistant Secondary Education Tel: 0 2354 9161

Mrs. Pudtamaporn Tiangthum Scientist Assistant High Qualification Professional Certificate Tel: 0 2354 9161

### **EDUCATION**

### Students with ongoing research:

MCTM (Trop Ped) 2009-2010: 5 doctors

- (1) Dr. Bilal Ahmad Rahimi: "Tuberculous Meningitis In Queen Sirikit National Institute Of Child Health, Thailand"
- (2) Dr. Novie Homenta Rampengan: "Clinical Features Of Gastrointestinal Salmonellosis In Qsnich, Thailand"
- (3) Dr. Jay Isturis Buensuceso: "Unusual Clinical Manifestations Of Dengue Infection At Queen Sirikit National Institute Of Child Health, Bangkok, Thailand"
- (4) Dr. C Thu Win: "Clinical Risk Factors Of Severe Dehydrated Childhood Diarrhea In Qsnich, Thailand"
- (5) Dr. Kyan Aung: "Clinical Difference Between Admitted Pediatric H1N1 2009 Influenza And Others In Queen Sirikit National Institute Of Child Health, Thailand"

### **Students Receiving Funding:**

MCTM (Trop Ped) 2009-2010

- (1) Dr. Bilal Ahmad Rahimi: World Bank
- (2) Dr. C Thu Win: Thailand International Development Cooperation Agency (TICA)
- (3) Dr. Kyan Aung: SEAMEO TROPMED

### Training Courses, Workshops, and Meetings:

- 2<sup>nd</sup> International Training Course in Tropical Pediatrics; August 24-28, 2009; Faculty of Tropical Medicine; 26 participants
- 1<sup>st</sup> Annual Meeting of Thailand Chapter of International Society of Tropical Pediatrics; August 26, 2009; Faculty of Tropical Medicine, 59 participants

### RESEARCH

### Highlights of research projects

- (1) Efficacy and safety of dengue vaccine in healthy children age 4 to 11 years in Thailand (CYD23) Prof. Arunee Sabchareon
- (2) Epidemiological study of dengue infection in children in Ratchaburi Province (RAT0148 extension) Assoc. Prof. Pornthep Chanthavanich

### **Research Collaborators:**

(1) Sanofi Pasteur, France

- (2) Pediatric Dengue Vaccine Initiative (PDVI) **Technical Services** 
  - (1) Providing nursing services to children
  - (2) Developing clinical examinations and providing health care for tropical disease



Epidemiological Study of Dengue Infection in Children Age 3-10 Years in Ratchaburi Province



Preparing Documentation





Inform and Consent



History Taking & Physical Examination



Teaching How to use a Thermometer





Blood Drawing

### **DEPARTMENT OF** MOLECULAR TROPICAL MEDICINE AND GENETICS

Faculty of Tropical Medicine, Mahidol University Tel: 02-203 6333 Fax: 02 3549169



### Prof. Songsak Petmitr

Head of Department BEd (Secondary School), MSc (Chemistry Ed), PhD (Biochem) Expertise: Molecular biology, molecular carcinogenesis E-mail: tmspm@mahidol.ac.th, headtmnu@mahidol.ac.th Tel: 9175



Dr. Santi Maneewatchararangsri Lecturer PhD (Biomedical Sciences, Molecular Immunoloav) E-mail: tmsanti@mahidol.ac.th Tel: 1607



Dr. Naowarat Tanomsing Lecturer PhD Expertise: Malaria, molecular biology E-mail: tmntn@mahidol.ac.th Tel: 081-935-1937 (mobile)



Dr. Usa Dokphrom Lecturer PhD Expertise: Molecular Biology, enzyme catalysis, directed evolution E-mail: tmusa@mahidol.ac.th Tel: 1690, 082-6488989 (mobile)



Asst. Prof. Mallika Imwong BSc (Nursing), MSc (Environ Sci), PhD (Trop. Med.) Expertise: Molecular genetic of drug resistance in malaria E-mail: noi@tropmedres.ac Tel: 1406



Dr. Onrapak Reamtong Lecturer PhD Expertise: Mass spectrometry, proteomics, biochemistry E-mail: tmonrapak@mahidol.ac.th Tel: 084-315-3553 (mobile)



Dr. Panee Chaksangchaichot BSc (Bio), MSc (Biochem), PhD (Trop Med) Expertise: Molecular cancer, microbiology E-mail: tmpcc@mahidol.ac.th Tel: 081-4845325 (mobile)

### INTRODUCTION

n October 2010, the Department of Molecular Tropical Medicine and Genetics was established as one of the departments of the Mahidol University Faculty of Tropical Medicine from the previous TROP MED Molecular Biology Network group. At the time of its foundation, the Department was composed of 9 academic staff members, 1 researcher and 3 graduate students enrolled in the Molecular Tropical Medicine tract.

Our department's mission includes (1) to provide internationalstandard academic curriculum training in graduate education through holistic, integrative knowledge; (2) to conduct molecular research in both basic and cutting-edge areas not only for tropical diseases, but also for high priority diseases for Thailand; and (3) to provide academic services, such as seminars, workshops, training and counseling, related to Molecular Biology technology for university staff members and public investigators.

The Department cordially welcomes graduate study, multidisciplinary research opportunities, networking and collaborations.



Dr. Piengchan Sonthayanon Lecturer BSc (Bio), MSc (Biochem), PhD (Trop Med) Expertise: PCR-based diagnostic method E-mail: stprj@mahidol.act.th; piengchan@ tropmedres.ac Tel: 2025



Dr. Supachai Topanurak Lecture PhD Expertise: Proteomics of Plasmodium vivax and tropical disease E-mail: tmsupachai@mahidol.ac.th Tel: 085-218-1980 (mobile)



Dr. Charin Thawornkuno Lecturer PhD

Expertise: Proteomics and genomics of microorganism, molecular biology of cancer E-mail: tmctw@mahidol.ac.th Tele: 085-811-2491 (mobile)



### **DEPARTMENT RESEARCH INTERESTS:**

The Department places emphasis on molecular biology research focused on high priority diseases of Thailand and other tropical areas, including malaria, dengue fever, leptospirosis, scrub typhus, emerging and re-emerging diseases, breast cancer and cholangiocarcinoma

We apply new multidisciplinary technology to the study of tropical diseases in order to bring a deeper understanding of these diseases at the molecular level. On-going research areas in our department include the following:

- Malaria research, focusing on drug resistance and bio-markers
- Molecular biology of breast cancer and cholangiocarcinoma
- Molecular biology of infectious diseases, focusing on diagnostic methods and vaccine and therapeutic antibody development
- Molecular biology of inflammatory diseases, focusing on immune mechanisms and immunotherapy treatments
- Genomics and proteomics research

### **EDUCATION:**

Our department offers an academic curriculum following a Molecular Tropical Medicine tract to earn a Master of Science degree or a Doctor of Philosophy degree in Tropical Medicine in the International Program.

### ACADEMIC SERVICE:

Monthly Molecular Biology Network meeting Molecular Biology and Bioinformatics Workshop Training on molecular biology techniques for interested investigators

### VACCINE TRIAL CENTRE (VTC)

E-mail: tmppt@mahidol.ac.th Telephone: 02-3549173 Fax: 02-3549174



Prof. Punnee Pitisuttithum Principal Investigator MB, BSc, DTM&H, Dip (Clinical Science, Medicine), Dip (Thai Board of Internal

### **AIDS VACCINE**

Soon after the launching of the AIDS National Plan for AIDS vaccine research and development in 1994, the staff of the Vaccine Trial Centre began to play an integral part in the quest for discovering an effective vaccine for HIV.

4 95 96 97 98 99 00 01 02 03 07	08 09	Vaccine Construct
		HIV-1 CM235 env/CM240 gag/pol vaccine [14]
		HIV-1 gag DNA with or without IL-12 DNA [14]
		pHIS-HIV-AE (DNA) and rFPV-HIV-AE [14]
a part of the		MRKAd5 HIV-1 vaccine [14]
		ALVAC-HIV vaccine + gp 120 B/E vaccine boost [30, 35, 36]
in the second		ALVAC-HIV vaccine + oligo gp 160 or gp 120 B/E vaccine boost [12]
a state the second second		ALVAC-HIV vaccine + gp 120 B/E vaccine boost [11, 14]
		AIDSVAX B/E [13, 14]
		gp 120 alum subtype B/E (AIDSVAX B/E) [10, 14]
the set		gp 120 MF 59 subtype B alone or with subtype E [9, 14]
( comment of		gp 120 alum subtype B [7]
and the second se		gp 120 MF 59 subtype B [8]
and a second sec		Peptide V3-MAPS [6]
hase I/II trials		

Diagram 1. The diagram shows the projects approved and conducted in Thailand. The projects conducted by staff of Vaccine Trial Centre are highlighted in violet. Since then, 8 out of 13 projects conducted in Thailand were conducted by the staff of Vaccine Trial Centre, either alone or in collaboration with other institutes. Thailand is the only country in the world to serve as the setting for two efficacy studies of AIDS Vaccine, which are (1) the Phase III Efficacy Trial of rgp120 B/E HIV Vaccine (AIDSVAX B/E) in Bangkok, Thailand (1999-2003), and (2) Prime-Boost strategy using two different vaccines: ALVAC-HIV (vCP1521) from Sanofi Pasteur and AIDSVAX® B/E from VaxGen Inc.(2003-2009). The Vaccine Trial Centre was the core group responsible for coordinating all clinical aspects of the study, including patient enrollment, vaccination, reactogenicity and adverse event detection recording and reporting, case record form recording, data reporting, and treatment and care follow up in order to comply with international and ethical standards. These two studies received international recognition from the WHO/UNAIDS Review team and Data and Safety Monitoring Boards. The first trial, which included 2545 test subjects, showed that the AIDSVAX® B/E vaccine on its own had no significant efficacy. However, the results of the second trial showed that the priming and boosting regimen using both the ALVAC HIV and AIDSVAX vaccines had and efficacy of 31.2% in preventing HIV infection. It is the first time ever, since the discovery of the HIV virus, that any sort of treatment displayed a degree of efficacy, even a modest one. This fact earned it the position of number two on the Time Magazine top ten list of medical breakthough. This study gives us hope that we can and will one day find a cure.

The staff also continues to conduct a series of studies to test a new antifungal drug, Prosaconazole®, for cryptococcal meningitis and other fungal infections in AIDS patients. Most recently, one study investigated the efficacy of this drug in Cryptococcal meningitis and refractory oral canidiasis in AIDS patients.

### Projects of Human Papilloma Virus Vaccine (HPV Vaccine) and Warts Vaccine

The Vaccine Trial Centre plays a vital part in studying the Quadrivalent Vaccine for HPV, produced by Merck Co., Ltd. Using a sample group of females aged between 16 and 24 years old, we examined the vaccine's effectiveness. The results indicate that the vaccine is indeed effective. Moreover, a later study has also shown that the same vaccine is effective with in a sample group of females aged between 25 and 45 years old.

### Summary of Publications Organized by Category

•	AIDS / HIV vaccine	54 publications, 2 in publishing
		process
•	HPV vaccine	3 publications
٠	Shigella vaccine	1 publications, 2 in publishing
		process
•	Malaria vaccine	10 publications
•	Cholera vaccine	16 publications
•	Measles vaccine	2 publications
•	Poliomyelitis vaccine	2 publications

### **CURRENT PROJECTS**

(1) A Phase III Trial of Aventis Patseur Live Recombinant ALVAC-HIV (vCP1521) Priming with VaxGen gp120 B/E (AIDSVAX® B/E) Boosting in HIV-uninfected Thai Adults.

Using two treatment groups, the vaccine group and a placebo group, injections were administered to a total of 16,402 healthy men and women between the ages of 18 and 30 years old in the provinces of Rayong and Chonburi in Thailand. The vaccine was 31.2% effective. The results, while modest rate, will offer great insight into future research.

(2) A Randomized, International, Double-Blinded (With In-House Blinding), Controlled With GARDASIL<sup>™</sup>, Dose-Ranging, Tolerability, Immunogenicity, and Efficacy Study of a Multivalent Human Papillomavirus (HPV) L1 Virus-Like Particle (VLP) Vaccine Administered to 16- to 26-Year-Old Women.

A total of 135 Thai girls between the ages of 16 and 26 years old were enrolled in the study on October 2008. The vaccination is a multi-step process and must be administered on the first day, and twice more two and six months later with subsequent follow-up appointments. This study is currently undergoing the phases for month six and seven.

(3) A Phase III Clinical Trial to Study the Immunogenicity, Tolerability, and Manufacturing Consistency of V503 (A Multivalent Human Papillomavirus [HPV] L1 Virus-Like Particle [VLP] Vaccine) in Pre-adolescents and Adolescents (9 to 15 year olds) with a Comparison to Young Women (16 to 26 year olds)

Nine Thai women (16-26 years old) and 22 Thai children aged (9-15 years old) were enrolled in the study in December 2009. Currently, we are in the beginning phases of the study.

(4) Phase I/II safety and immunogenicity of pandemic live attenuated influenza vaccine (PLAIV) candidate strain A/17/ CA/2009/38 (H1N1) in healthy Thais.

Twenty-four Thai adults (15 male and 9 female) were enrolled for part one. The first round of vaccinations was on 18-24 December 2009.

(5) Safety, Immunogenicity and Efficacy Studies of WRSS1, a live Attenuated *Shigella sonnei* Vaccine Candidate, in Healthy Thai Adults.

This study is waiting for an import permit. Plan to screen at the end of March 2010.

### ACTIVITIES





Announcing the results of the Phase III Trial of the combination ALVAC-HIV and AIDSVAX B/E vaccine at a conference, 14 Mar 2009



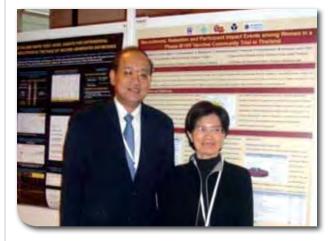


Natural Reforestation, May 29-30, 2009

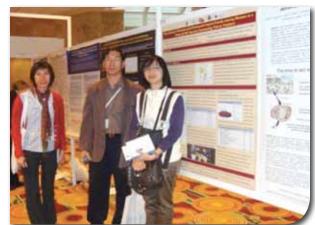




The announcement of Phase III Prime Boost



AIDSVACCINE 2009 Paris, October 19-22, 2009



### CENTER OF EXCELLENCE FOR BIOMEDICAL AND PUBLIC HEALTH INFORMATICS (BIOPHICS)

The Rockefeller Foundation (RF) had funded Mahidol University to establish the Center of Excellence for Biomedical and Public Health Informatics (BIOPHICS) at the Faculty of Tropical Medicine (FTM) in late 2007. The funding aimed to set up a reference center for informatics in tropical medicine for the Southeast Asian region and beyond. The goal of the proposed center within the FTM environment is to be an excellent resource for both "teaching and reaching" the public with integrity and quality health informatics. The center will not only serve Thailand's needs but also reach to other countries, especially those in the same type of tropical environment. To learn more about the BIOPHICS Center, please visit our website at www.biophics.org

The BIOPHICS evolved from the Data Management Unit (DMU) that was established in 1999 within the umbrella of the Vaccine Trial Centre (VTC). The FTM transferred all DMU staff to be in the new structure of BIOPHICS. The center moved to the new facility within FTM in July 2008 with funding support from RF and additional funding the Southeast Asia Influenza Clinical Research Network (SEA ICRN), for which the center is working on a network clinical trial. The new facililties make it possible for public health informatics project development and training, as well as for data management of biomedical research activities and projects. Currently, there are a total of 25 members of the BIOPHICS staff, including 7 IT workers, 10 data management and statistics officers, 2 quality assurance officers, 2 office managers, and 4 administrative workers. All staff members have a lot of experience working in the areas of clinical research and public health informatics (PHI).

During the past year, there have been several clinical research studies from various institutes and agencies that the BIOPHICS staff has been providing assistance in data management and analysis. A few PHI projects have been developed and in-progress during the past year.

### 1. Capacity Building Projects:

In late 2008, BIOPHICS in collaboration with the University of Washington (UW) had conducted the international course entitled "Collaborations in Public Health Informatics among MBDS and SEAMEO Countries". The workshop had 35 participants from MBDS countries (Cambodia, Laos PDR, Myanmar, Thailand, Vietnam, Yunan-China) and additional representatives from SEAMEO countries (Indonesia, Malaysia, Phillipines). It included two weeks of lectures, interactive learning activities, and group problem solving exercises. The participants were representatives from the Ministry of Health and/or international health organizations from one of the eight other participating counties. Their background included program directors, head of health/ medical departments, physicians, IT workers, program operators. Additionally, three graduate students from Bhutan, Myanmar, and Thailand also participated in the workshop.

Because of a postponement due to H1N1 outbreak in 2009, BIOPHICS had arranged the 2nd PHI workshop entitled "Improving Health Outcomes through Interoperability" was

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arranged in February 2010. The purpose and format of this workshop was similar to the first one, in as much that this workshop was arranged as a two-week course in PHI for researchers and health care workers in Southeast Asia and nearby regions. The University of Washington (UW) was subcontracted to develop and provide this course at FTM. The training materials and invited speakers, in part, was adapted from the PHI program at US Centers for Disease Contol (CDC). The BIOPHICS experience in PHI projects and its plan to enhance the disease surveillance system of the MBDS countries were also presented at the workshop. The 2nd workshop was attended by 45 participants from MBDS and SEAMEO countries, as well as some participants from Bangladesh.

BIOPHICS also received funding support from the Thailand Center of Excellence for Life Sciences (TCELS) to establish a national training center on clinical data management. Currently, BIOPHICS has been arranging a 5-month training course for data managers from different academic institutes on "Good Clinical Data Management Practice," targeting people who work with clinical data. Data managers from Chulalongkorn University, Chieng Mai University, Ramathibodi Hospital, Siriraj Hospital, and the Thai Food and Drug Administration all joined this course. At the conclusion of the course, the participants will take an examination to receive a certificate of data management issued by the Society for Clinical Data Management (www. scdm.org.)

Another ongoing capacity building activity of BIOPHICS is about development of graduate programs in PHI at FTM. This is still in the process. It is anticipated that Mahidol University will offer both an MSc and PhD program in PHI starting in the 2011-2012 academic year.

### **Public Health Informatics Projects:**

After the establishment of BIOPHICS at FTM, the center had proposed and developed several projects related to PHI. Developed from projects initiated in 2008, two big projects have been implementing and functioning in the project areas. The first project is **"Better Border Healthcare Program (BBHP)" Project**. After being developed, the project received great support from Microsoft Research. The goal of the BBHP is to develop models for utilizing smart phone technology as a health communication tool in the under-served communities along the Thailand border. This is done in





order to: (1) improve maternal health focusing on antenatal care (ANC), (2) reduce child mortality focusing on Expanded Programme on Immunization (EPI), and (3) prevent and monitor disease incidence and ensure treatment outcomes focusing on malaria due to the fact that the border area is malaria-endemic. The second project is the "Development of Health Information System for Managing Healthcare Services in Remote Areas: A Module for Monitoring Containment of Drug Tolerant Malaria Parasites" Project." The project involves collaborating with the Bureau of Vector Borne Disease (BVBD), the Thai Ministry of Public Health (MOPH), and WHO. The project is supported by the Gates Foundation to develop a module of Health Informatics System (HIS) by using a mobile technology-based system that will increase the early disease detection, case investigation, patient compliance and follow-up visits (tracking) of malarial patients, as well as to collect data regarding multi-drug resistance (MDR) among the patients. The project is currently operating in 7 provinces along Thailand-Cambodia borders covering 11615 villages.

Another project is the **"Enteric Disease Surveillance in Ranong Province" Project**, which entails a collaboration with Provincial Medical Office (Ranong) of the Thai Ministry of Public Health (MOPH), and WHO. Our main objective is to develop a new module of health informatics. This will be accomplished by enhancing the current MOPH Health Information System via a mobile technology-based system, allowing us to increase the number of enteric disease cases investigated and followed-up on. The target population includes migrant or mobile workers in the province.

### Biomedical and Clinical Research Projects.

Since March 2008, BIOPHICS has functioned as the Regional Data Management Center (RDMC) of SEA ICRN by providing data management services for network-sponsored clinical research studies. During the past year, the BIOPHICS-RDMC has been involved in 10 clinical research studies of the network. Several projects are still in the protocol development phase, which allows BIOPHICS-RDMC to participate in parts of CRF design, protocol section drafting and data management and analysis plan.



BIOPHICS also works with different governmental and private agencies in several research studies ranging from Phase I, II, III to Post-marketing surveillance. It also takes part in some disease registry and adverse drug reaction surveillance. Several pharmaceutical companies are regular clients of the center.

# Collaborations and Presentations at International Meetings

In the 12th Joint International Tropical Medicine Meeting (JITMM) organized in late 2008 by the FTM, the forum on "Health Informatics" was set up for the first time and led by BIOPHICS. There were approximately 70 participants in this forum. In 2009, BIOPHICS arranged the health informatics forum in the annual JITMM 2009 which was held at Centara Hotel in Bangkok during 2-4 December.

In October 2009, BIOPHICS collaborated with Thailand Medical Informatics (TMI) in arranging a workshop at BIOPHICS & Hong Kong on topics related to Health IT. For the TMI Meeting 2009, which was held in November in Bangkok, BIOPHICS had again led the session on public health informatics. With the topic of "On-line Surveillance Systems in Public Health Informatics," we presented several concepts and tools for fighting infectious diseases using PHI.

We have further branched out to the international network of PHI institutes through 2 presentations on our PHI projects at the Public Health Information Network (PHIN) arranged by US-CDC in Atlanta in August 2009. Supported by Microsoft Research, we also presented our PHI projects





about mobile health technology at the mHealth summit in Washington DC in October 2009. At both the PHIN and mHealth meetings, BIOPHICS made several connections with potential collaborators, including representatives from US-CDC, HMN, WHO, and Peru University.

Throughout the past year, BIOPHICS has received visitors from academic institutes, governmental, and non-governmental organizations. Several international organizations also arranged for their personnel and guests to visit BIOPHICS to look at its Biomedical and Clinical facilities as well as PHI projects. Those organizations include Rockefeller Foundation, WHO, Malaria Consortium, and the Gates Foundation.





Annual Review 2010 - 2011 Faculty of Tropical Medicine, Mahidol University

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in Thailand, the Southeast Asian region, and beyond.

and international policies.

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The Wellcome Trust - Mahidol University - Oxford Tropical Medicine Research Programme (also known as the Wellcome Trust Overseas Programme (MOP)) began in 1979 as a research collaboration between the Faculty of Tropical Medicine, Mahidol University and the University of Oxford. The program has expanded considerably over the years, with the creation of the Shoklo Malaria Research Unit (SMRU) in 1986, of our sister MOP in Viet Nam in 1991, the Lao Collaboration (LOMWRU) in 2000, and of numerous other clinical study sites and laboratories

The Thailand MOP is at an exciting juncture in its 30-year history. We have reached our highest-ever level of research productivity, and as a result of sustained investment from the Wellcome Trust our research is delivering important advances in malaria, melioidosis, leptosipirosis, rickettsial infections, and the burgeoning problem of counterfeit medicines, and have a significant influence upon national

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Our main administrative office and laboratories are embedded within the Faculty, though most of our clinical studies and much of our laboratory work takes place in 'up-country' study sites. Our main research interests are the epidemiology, diagnosis, pathogen population genetics, pathophysiology antimicrobial drug resistance and the treatment of malaria, scrub and murine typhus, melioidosis, leptospirosis and other tropical infections which impose a substantial disease burden on rural populations throughout this populous region.

Over the past four years, we have developed a worldclass pharmacology laboratory, and have built modern, international standard Biosafety Level 3 laboratories in Bangkok and Vientiane. SMRU has instituted new and very busy clinical facilities along the Thai Burmese border, and has renewed and developed its laboratory and logistical base in Mae Sot. In Mahosot Hospital in Vientiane a new Infectious Diseases Centre has been built. In addition to SMRU and LOMWRU, we have study sites in Ubon Ratchatani (melioidosis and cryptococcal meningitis), Udon Thani (scrub typhus and leptospirosis), and Chittagong Medical College in Bangladesh, Rourkela in India, and Beira in Mozambique (all severe malaria). In Africa, we are working with collaborators to coordinate the largest-ever clinical trial in severe malaria, by recruiting in nine study sites across eight countries and investigating the epidemiology of poor antimalarial drug quality.

บปกาสตรเขตรอบ มหาวิทย

ลสรรพสิทธิประสงค์ อุบลง



### COMMUNICABLE DISEASES POLICY RESEARCH GROUP: LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE (CDPRG)



Professor Richard Coker MBBS, DGUM, MSc, DLSHTM, MD, FRCP, FFPH Professor of Public Health, Head, Communicable Diseases Policy research Group (CDPRG) Department of Public Health and Policy, London School of Hygiene and Tropical Medicine Email: Richard.Coker@lshtm.ac.uk Tel: 66 2 354 6179 Fax: 66 2 354 9195 Field of expertise: Health systems, Infectious disease policy, Pandemic diseases, Public health, Tuberculosis.





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Ms. Wasamon Sabaiwan CDPRG Research Administrator Email: Wasamon.Sabaiwan@lshtm.ac.uk Tel: 66 2 354 9195 Fax: 66 2 354 9195 The Communicable Diseases Policy Research Group (CDPRG), LSHTM provides a focus of expertise on the diverse public health problems associated with communicable disease control internationally. The Group focuses on multidisciplinary research in support for, and of, policy reform.

The Group comprises a team of specialists in clinical medicine, epidemiology, public policy and public health, all of whom have substantial portfolios of research on the diverse health problems facing the countries in Europe, Asia and Africa.

The team has established wide range of collaborative partnerships with institutions and individuals both domestically in the UK and internationally including multilateral agencies, bilateral agencies and industry. In addition the group also draws on the considerable expertise across the Health Policy Unit, the Department of Public Health and Policy, and the wide range of disciplines found within the London School of Hygiene & Tropical Medicine. CDPRG now has its office situated at the Anekprasong Building of the Faculty of Tropical Medicine, Mahidol University with a number of ongoing research projects between the staff of the two groups including the AsiaFluCap project and the SACIDS project. Additional collaborative research plans are also in the process of grants seeking and research proposal finalization.

Notable areas of research which have received considerable attention have included health systems analysis, analysis of strategic planning, law as a tool to support communicable disease control, policy analysis, development and ranking of indicators to assess performance. CDPRG's research findings are published widely in domestic and international peer-reviewed journals.

CDPRG staffs have extensive national and international experience in providing high quality teaching and training in short graduate and post-graduate courses and masters programmes. In particular, they have established and run the highly successful summer schools and international workshops for health policy makers.

# CDPRG are involved in a number of ongoing research projects, including the following:

- The AsiaFluCap Project: Health system analysis to support capacity development to respond to pandemic influenza in 6 Asian countries
- A multi-disciplinary research framework to define and address challenges at the interface of animal and human health systems
- The impacts of Measles Eradication on Health System Project as part of the WHO's global study on the feasibility of Measles eradication
- The integration of the Global Fund to Fight AIDS, TB, and Malaria portfolios into health system in 5 countries in Asia
- The PHLawFlu Project: The role of law in public health and in the control of and protection against pandemic human influenza
- Molecular surveillance, epidemiology and evolution in Influenza A in Bali, Indonesia Infectious Diseases Preparedness Analysis and Resources Mapping across Human and Animal Health Sectors in Southern Africa (SACIDS)

- Research on Regional Integration and Infectious Diseases for the Asia-Europe Foundation Network for Public Health
- Analysis of case studies of programme integration and health systems in Southeast Asia
- Social mixing patterns for influenza like illness in Asia (SMILI)



### Pictures of selected recent CDPRG's research activities are shown below

The participants at the Synthesis Workshop for the Study of Assessing the Health Systems Impact of Measles Eradication, Holidays Inn Phuket Hotel, Thailand, 24-26 May 2010



The AsiaFluCap participants at the Consortium & Stakeholder Analysis Workshop, Leader Hotel, Taiwan R.O.C, 3-4 May 2010



The AsiaFluCap participants at the Luang Prabang Workshop on Health System Resource Gap Analysis, Manoluck Hotel, Lao PDR 29-30 November 2010



The participants at the Conference on Pandemic Preparedness in Asia (AsiaFluCap), Pullman Bangkok King Power Hotel, Thailand 30 March 2011

### **CENTER OF EXCELLENCE FOR ANTIBODY RESEARCH (CEAR)**

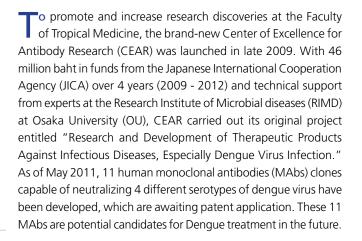
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### Assist. Prof. Pongrama Ramasoota Assistant Professor Ph.D (Microbiology)

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Ms. Chaweewan Punkum Scientist (MOCID) M.Sc. (Microbiology) Area of expertise: Microbiology /Medical Microbiology E-mail: P\_chaweewan@hotmail.com Tel: 02-354-9156 Fax: 02-354-9157



Dr. Mikiko Sasayama Postdoctoral Fellow (MOCID) Ph.D. (Medical Science) Area of expertise:Microbiology E-mail: smilesasabon@hotmail.com Tel: 02-354-9156 Fax: 02-354-915



Ms. Panjaporn Chaichana Scientist (MOCID) M.Sc. (Immunology) Area of expertise: Immunology/Medical Molecular, Biology of Dengue virus E-mail: Panjaporn.ch@gmail.com Tel: 02-354-9156 Fax: 02-354-9157

Moreover, various new MAbs that can be used for diagnosing various tropical diseases, including the influenza virus, leptospirosis, Aeromonas, and foot-and-mouthdisease viral infections, have been developed using classical hybridoma and novel phage-display technologies. A rapidtest kit, able to detect and differentiate H5N1 influenza virus from other influenza viruses, is now in production at a licensed company. A new human MAb that treats H5N1 Influenza virus has been developed, and human MAbs specific to dengue and HIV, are now under development using novel human hybridoma (SPYMEG cell) technology. The CEAR laboratories and offices are situated on the 5th floor of the Chalermprakiet 50 Years Building. The CEAR is comprised of the following staff members:

	CEAR
CEAR Director;	Dr. Pongrama Ramasoota
CEAR Deputy Director;	Dr. Pornsawan Leuangwuttiwong
JST-JICA Chief advisor;	Professor Dr. Kazuyoshi Ikuta
JICA short term expert;	Dr. Tadahiro Sasaki
JICA project coordinator;	Mr. Tetsuo Yamashita
Secretary;	Miss Duangduen Phienpicharn
Medical Science Associate;	Mr. Noppachai Sutthisai
Janitor	Mrs. Vorapa Noungkummee
Janitor	Miss Suttima Noisub

After such successful research collaborations between CEAR and RIMD OU, both institutions decided to expand to conduct research on other infectious diseases field, such as the Chikungunya and rabies viruses, which emphasizes areas of bio-medical, diagnostic and vaccine development. So the new Mahidol Osaka center for infectious diseases (MOCID) has been established under umbrella of CEAR, since 2011, which is situated on the 12th floor of the Chalermprakiet 50 Years Building, with additional staff members from both Thailand and Japan:

	MOCID
Director	Professor Kazuyoshi Ikuta
Deputy Director	Assoc. Prof. Tamaki Okabayashi
Post doc	Dr. Mikiko Sasayama
Post doc	Dr. Promsin Masrinoul
Researcher	Miss Orapim Puiprom
Researcher	Miss Panjaporn Chaichana
Researcher	Miss Chaweewan Punkum
Researcher	Miss Chitchanok Khamlert
Researcher	Miss Megumi Noda
Researcher	Miss Khwanchit Boonha
Secretary	Miss Wiyada Kuno

### BANGKOK SCHOOL OF TROPICAL MEDICINE



Assoc. Prof. Waranya Wongwit Duputy Dean for Education BSc (Biology), MS (Biological Sciences), PhD (Biochemistry) The Bangkok School of Tropical Medicine, the educational arm of the Faculty of Tropical Medicine, offers a number of postgraduate programs, ranging from graduate diploma to doctoral level degrees. The School is acknowledged and approved by the International Society of Travel Medicine and the American Society for Tropical Medicine and Hygiene as **being one among only eight schools in the world, in which students can obtain a diploma in tropical medicine.** In addition, it is the only school in which students can study tropical diseases, while living in the tropics.

The Bangkok School of Tropical Medicine offers world-class

programs that equip doctors, researchers, and medical personnel, as well as professionals concerned with tropical medicine and public health, with the skills they need to further their careers, and to make a positive impact on healthcare problems in the tropics and elsewhere. Our graduates pursue successful careers in public and private sector healthcare services in national, regional and international agencies and in research institutions.

### **POSTGRADUATE PROGRAMS**

### Diploma in Tropical Medicine and Hygiene

*Title:* Graduate Diploma in Tropical Medicine and Hygiene [D.T.M. & H.]

*Objectives:* To produce graduates with a high level of knowledge concerning tropical health problems and diseases, including epidemiology, etiology, pathogenesis, pathology, nutritional aspects, risk factors, and clinical manifestations.

*Requirements:* Students must hold a M.D., M.B.B.S. or other qualification as a qualified medical doctor accepted by Mahidol University.

*Program duration:* Approximately 6 months; the program begins the first week of April and ends at the end of September each year.

Educational Fee: Tuition Fee: US\$ 4,000.

For more information please visit *http://www. tm.mahidol.ac.th/eng/academic/aca\_dtmh\_overview.htm* 

### Master of Clinical Tropical Medicine

Title: Master of Clinical Tropical Medicine [M.C.T.M.]

*Objectives:* The program aims to produce graduates who are well-versed and knowledgeable in tropical and endemic diseases, especially in Southeast Asia, in relation to their causes, epidemiology, pathogenic mechanisms, and prevention and management. In addition, these graduates will be able to efficiently examine, diagnose and treat patients suffering from tropical and endemic diseases.

*Requirements:* Students must hold a M.D., M.B.B.S. or other qualification as a qualified medical doctor accepted by Mahidol University.

*Program duration:* Approximately 1 year; the program starts the first week of April each year.

*Educational Fee:* US\$ 8,000 plus Research Supplies Fee (to support thematic paper/thesis) of 50,000 Baht (approx. US\$ 1,429).

For more information please visit *http://www. tm.mahidol.ac.th/eng/academic/aca\_mctm\_overview.htm* 

### Master of Clinical Tropical Medicine (Tropical Pediatrics)

*Title:* Master of Clinical Tropical Medicine (Tropical Pediatrics) [M.C.T.P. (Trop. Ped.)]

*Objectives:* To train medical doctors with a basic background in pediatrics, in understanding the diseases related to tropical pediatrics, with reference to endemic diseases particularly in Southeast Asia. The program focuses on etiology incidence, pathogenesis, clinical features, and prevention and control of diseases.

*Qualifications:* Hold a M.D., M.B.B.S. or other equivalent qualification that qualifies them to practice as a medical doctor, and which is accepted by Mahidol University.

*Program duration:* The duration of study is one year (not exceeding 2 academic years).

*Educational Fee:* Tuition Fee: US\$ 8,000 plus Research Supplies Fee (to support thematic paper/thesis) of 50,000 Baht (approx. US\$ 1,429).

For more information please visit *http://www. tm.mahidol.ac.th/eng/academic/aca\_mctp\_overview.htm* 



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### Master of Science in Tropical Medicine

*Title:* Master of Science in Tropical Medicine [M.Sc. (Trop. Med.)]

*Objectives:* To produce graduates who will be ethical and responsible researchers and/or academics in tropical medicine.

*Qualifications:* Applicants must hold M.D. or D.D.S or D.V.M. or Bachelor degree in Sciences with a cumulative GPA of at least 2.50.

*Program duration:* Approximately 2-5 years; the program starts the first Monday of June each year,

*Educational Fee:* Tuition Fee: US\$ 7,000 per year for years 1-2, then US\$ 700 for years 3-5 if necessary; plus Research Supplies Fee (to support the thesis) of 50,000 Baht (approx. US\$ 1,429) per thesis year up to a maximum of 150,000 Baht (US\$ approx.4,286).

For more information please visit *http://www. tm.mahidol.ac.th/eng/academic/aca\_msc\_overview.htm* 

### Doctor of Philosophy in Tropical Medicine

*Title:* Doctor of Philosophy in Tropical Medicine [Ph.D. (Trop. Med.)]

*Objectives:* To produce graduates who will be leaders in tropical medicine research with respect to ethics and responsibility to society and environment.

Qualifications:

- Plan I hold a Master of Sciences (M. Sc.) in Tropical Medicine or related field or an M.D., D.V.M. or D.D.S.; and
  - have had at least two research publications in the international peer-reviewed journal(s), of which, being the first author or corresponding author of at least one publication
- Plan II hold a M. Sc., M.D., D.V.M., or D.D.S.; or
  - hold a B.Sc. with honor degree; or
  - be a M. Sc.(Trop. Med.) student who has completed core subjects and required elective subjects within two semesters with a GPA of not less than 3.50

*Program duration:* Approximately 3-8 years depending on the educational background of the students, i.e., those who already hold a Master degree may take 3 years, but not longer than 6 years; whereas those with only a Bachelor degree may take 3 to 8 years to complete the program. The program begins the first Monday of June each year. There is a 2nd intake in November, by arrangement.

*Educational Fee:* US\$ 8,000 per year for years 1-3, then US\$ 800 thereafter, if necessary; plus Research Supplies Fee (to support thematic thesis) of 120,000 Baht (approx. US\$ 3,429) per thesis year, up to a maximum of 300,000 Baht (approx. US\$ 8,571).

For more information please visit *http://www. tm.mahidol.ac.th/eng/academic/aca\_phd\_overview.htm* 



Doctor of Philosophy in Clinical Tropical Medicine Title: Doctor of Philosophy Program in Clinical Tropical Medicine [Ph. D. (C.T.M.)]

*Objectives:* To produce Ph.D. graduates who are highly competent in clinical tropical medicine for both government and non-government organizations in all regions, particularly in Thailand and Southeast Asia.

*Qualifications:* M.D. or M.B.B.S. with at least 3 years experience in clinical medicine.

*Program duration:* Approximately 2-5 years, the duration of study must not exceed 5 academic years.

*Educational Fee:* US\$ 8,000 per year for years 1-3, then US\$ 800 thereafter, if necessary; plus Research Supplies Fee (to support thematic thesis) of 120,000 Baht (approx. US\$ 3,429) per thesis year, up to a maximum of 300,000 Baht (approx. US\$ 8,571).

For more information please visit *http://www. tm.mahidol.ac.th/eng/academic/aca\_phdctm\_overview.htm* 

**Note:** All tuition fees are required to be paid in US dollars, and research supplies fees are to be paid in Thai Baht (with approximate US\$ values shown, calculated at a rate of 1 US\$ = 35 baht)

### UNDERGRADUATE PROGRAM

The Faculty offers one undergraduate program namely Certificate Program for Nurse Assistant, which is coordinated by the Hospital for Tropical Diseases. There were 224 students attending the program in 2009 while in 2010, there were 130.



NEW	NEW ENROLMENT							
Grac	duate Diploma in Tropical Medicin	e and Hygiene [	D.T.M.&F	ł.]				
No.	Name	Country	No.	Name	Country			
Acad	lemic Year 2009		Acad	lemic Year 2010				
1.	Dr. Bilal Ahmad Rahimi	Afghanistan	10.	Dr. Dwiyanti Puspitasari	Indonesia			
2.	Dr. Deena Kanagaraj	India	11.	Dr. Stefano di Gregorio	Italy			
3.	Dr. Novie Homenta Rampengan	Indonesia	12.	Dr. Margherita Colarullo	Italy			
4.	Dr. Maiko Kojiro	Japan	13.	Dr. Edoardo Fanti	Italy			
5.	Dr. Tai Pei-Wen	Malaysia	14.	Dr. Hidenori Moriyama	Japan			
6.	Dr. Kyawt K Khine	Myanmar	15.	Dr. Yoshihito Inakuma	Japan			
7.	Dr. Kyi Lai Lai Aung	Myanmar	16.	Dr. Wataru Kashino	Japan			
8.	Dr. May Myat Win	Myanmar	17.	Dr. Satoru Takeno	Japan			
9.	Dr. Myat Thandar Aung	Myanmar	18.	Dr. Kentaro Ishida	Japan			
10.	Dr. Ma Thit Sar Thwin	Myanmar	19.	Dr. Kenishi Nobusue	Japan			
11.	Dr. Thu Zar Tin Maung	Myanmar	20.	Dr. Karoru Takahashi	Japan			
12.	Dr. C. Thu Win	Myanmar	21.	Dr. Hototake Mori	Japan			
13.	Dr. Than Htike Aung	Myanmar	22.	Dr. Thi Thai Kyaw	Myanmar			
14.	Dr. Dipendra Sharma	Nepal	23.	Dr. Su Su Min Naing	Myanmar			
15.	Dr. Brendan John Arnold	New Zealand	24.	Dr. Khin Myat Myat Lwin	Myanmar			
16.	Dr. Zbigniew Porzecki	Poland	25.	Dr. Nay Yi Yi Linn	Myanmar			
17.	Dr. Jay Isturis Buensuceso	Republic of	26.	Dr. Kyaw Thurein Tun	Myanmar			
		the Philippines	27.	Dr. Khin Nyein Nyein	Myanmar			
18.	Dr. Kulanum Leenutaphong	Thailand	28.	Dr. Khine New Win	Myanmar			
19.	Dr. Veerachai Chevadisaikul	Thailand	29.	Dr. Nyan Lin Kyaw	Myanmar			
20.	Dr. Nguyen Ngoc Vinh	Vietnam	30.	Dr. Bo Bo Thet Ko	Myanmar			
21.	Dr. Truong Trung Kien	Vietnam	31.	Dr. Thiri May	Myanmar			
			32.	Dr. Wai Yan Aung	Myanmar			
Acad	demic Year 2010		33.	Dr. Sigrid Solhaug	Norway			
1.	Dr. Zarghoon Tareen	Afghanistan	34.	Dr. Ahmed Abdi Dahir Mahallah	Somalia			
2.	Dr. Fazal Yamin	Afghanistan	35.	Dr. Brima Musa Younis Mahammed	Sudan			
3.	Dr. Pippa Dorothea proell	Austria	36.	Dr. Maria Ulla Elisabeth Isacsson	Sweden			
4.	Dr. Brigitte Stelzhammer	Austria	37.	Dr. Sabine Dorothea Majer	Switzerland			
5.	Dr. Tapos Rema	Bangladesh	38.	Dr. Kasemsuk Yothasamutr	Thailand			
6.	Dr. Juri Katchanov	Germany	39.	Dr. Thitima Klomkleao	Thailand			
7.	Dr. Yvonne Albrecht	Germany	40.	Dr. Wipaporn Natalie Songtaweesin	Thailand			
8.	Dr. Anik Bose	India	41.	Dr. Nguyen Ngoc Vinh	Vietnam			
9.	Dr. Roni Saha	India	42.	Dr. Troung Trung Kien	Vietnam			

### Master of Clinical Tropical Medicine [M.C.T.M.]

No.	Name	Country	1	No.	Name	Country
Acad	Academic Year 2009				lemic Year 2010	<u>,</u>
1.	Dr. Deena Kanagaraj	India		1.	Dr. Wataru Kashino	Japan
2.	Dr. Tai Pei-Wen	Malaysia		2.	Dr. Nyan Lin Kyaw	Myanmar
3.	Dr. May Myat Win	Myanmar		3.	Dr. Kyi Lai Lai Aung	Myanmar
4.	Dr. Than Htike Aung	Myanmar		4.	Dr. Bo Bo Thet Ko	Myanmar
5.	Dr. Dipendra Sharma	Nepal		5.	Dr. Khine New Win	Myanmar
6.	Dr. Veerachai Chevadisaikul	Thailand		6.	Dr. Khin Nyein Nyein	Myanmar
				7.	Dr. Brendan John Arnold	New Zealand
				8.	Dr. Ahmed Abdi Dahir Mahallah	Somalia
				9.	Dr. Thitima Klomkleao	Thailand

### Master of Clinical Tropical Medicine (Tropical Pediatrics) [M.C.T.M. (Trop.Ped.)]

No.	Name	Country	No.	Name	Country
Aca	demic Year 2009		Academi	c Year 2009	
1.	Dr. Bilal Ahmad Rahimi	Afghanistan	4. Dr.	C. Thu Win	Myanmar
2.	Dr. Novie Homenta Rampengan	Indonesia	5. Dr.	Kyan Aung	Myanmar
3.	Dr. Jay Isturis Buensuceso	Republic of			
		the Philippines			

### Master of Clinical Tropical Medicine (Tropical Pediatrics) [M.C.T.M. (Trop.Ped.)] (Continued)

No.	Name	Country	No	. Name	Country	
Academic Year 2010			Academic Year 2010			
1.	Dr. Zarghoon Tareen	Afghanistan	4.	Dr. Dwiyanti Puspitasari	Indonesia	
2.	Dr. Satoru Takeno	Japan	5.	Dr. Brima Musa Younis Mohamm	ed Sudan	
3.	Dr. Hidenori Moriyama	Japan				

### Master of Science in Tropical Medicine [M.Sc.(Trop.Med.)]

	ter of science in hopical Media					
No.	Name	Country	No.	Name	Country	
Acad	Academic Year 2009		Acad	Academic Year 2010		
1.	Mr. Sitthithana Adam	Thailand	4.	Ms. Kedsiree Mungkalatorn	Thailand	
2.	Mr. Nattapon Pinthong	Thailand	5.	Ms. Pornpimol Parnprathip	Thailand	
3.	Ms. Anchana Sumarnrote	Thailand	6.	Ms. Nipa Thammasonthijarern	Thailand	
4.	Mr. Thiranut Ramutton	Thailand	7.	Mr. Narenrit Wamaket	Thailand	
5.	Ms. Phikul Tipkrua	Thailand	8.	Mr. Witawat Tunyong	Thailand	
6.	Ms. Orawan Sungkhachat	Thailand	9.	Ms. Woranich Hinthong	Thailand	
7.	Ms. Busara Bamrungsak	Thailand	10.	Mr. Saranyoo Sotawong	Thailand	
8.	Ms. Pitsinee Malee	Thailand	11.	Ms. Jittraporn Rattanamahaphoom	Thailand	
9.	Ms. Klairoong Phonsranoi	Thailand	12.	Mr. Sethawud Chaikitgosiyakul	Thailand	
10.	Dr. Huynh Ngoc Son	Vietnam	13.	Ms. Rapeepan Prasertbun	Thailand	
11.	Mr. Paudel Damodar	Nepal	14.	Ms. Ruenruetai Udonsom	Thailand	
12.	Ms. Sitepu Monika	Indonesia	15.	Ms. Kanthinich Thima	Thailand	
13.	Dr. Wai Lin Htun	Myanmar	16.	Mr. Rungrot Jam-on	Thailand	
		-	17.	Mr. Santat Sudtasay	Thailand	
14.	Dr. Pham Minh Tuan	Vietnam	18.	Mr. Tenzin Wangdi	Bhutan	
			19.	Ms. Dechen Pemo	Bhutan	
Acac	lemic Year 2010		20.	Dr. Htun Oo Saw	Myanmar	
1.	Ms. Hathai Nochot	Thailand	21.	Dr. L.H.K.N. Deepika	Sri Lanka	
2.	Ms. Sumanee Lertkanokkun	Thailand	22.	Dr. Tran Viet Anh	Vietnam	
3.	Ms. Benchawan Wihokhoen	Thailand	23.	Dr. Nhu Thanh Hung	Vietnam	

### Doctor of Philosophy in Tropical Medicine [Ph.D. (Trop.Med.)]

DOCI	Doctor of Philosophy in hopical Medicine [Ph.D. (hop.med.)]				
No.	Name	Country	No.	Name	Country
Acad	Academic Year 2009		Acac	lemic Year 2010	
1.	Ms. Khurawan Kumkrong	Thailand	4.	Ms. Sarin Suwanpakdee	Thailand
2.	Ms. Narumon Chanwimalueang	Thailand	5.	Ms. Wilawan Somsong	Thailand
3.	Ms. Aunchalee Thanwisai	Thailand	6.	Ms. Jareonsri Satung	Thailand
4.	Ms. Ingfar Soontarawirat	Thailand	7.	Ms. Patamaporn Molee	Thailand
5.	Ms. Uraiwan Krainara	Thailand	8.	Mr. Bandid Mangkit	Thailand
6.	Mr. Boonruam Chittsamart	Thailand	9.	Mr. Pannatat Areekul	Thailand
7.	Ms. Sivaporn Wannaiampikul	Thailand	10.	Ms. Sirilak Dusitsitthiporn	Thailand
8.	Ms. Jongkol Sankote	Thailand	11.	Ms. Chantira Suttikornchai	Thailand
9.	Ms. Thipruethai Phanitchat	Thailand	12.	Mr. Surayuth Songsumud	Thailand
10.	Ms. Supatchara Nakeesathit	Thailand	13.	Ms. Napa Onvimala	Thailand
11.	Ms. Paviga Limudomporn	Thailand	14.	Ms. Wanida Chuenta	Thailand
12.	Mr. Nopphanath Chumpathat	Thailand	15.	Ms. Siriphan Boonsilp	Thailand
13.	Ms. Pannamas Maneekarn	Thailand	16.	Ms. Somporn Saiwaew	Thailand
14.	Ms. Chuenrutai Yeekian	Thailand	17.	Ms. Sirikalayanee Meeritthi	Thailand
15.	Dr. Thant Phyu Sin Htike	Myanmar	18.	Mr. Sayan Panyasong	Thailand
			19.	Dr. Teera Kusolsook	Thailand
Acad	lemic Year 2010		20.	Mr. Thanasak Changbunchong	Thailand
1.	Ms. Natapakwa Skunodom	Thailand	21.	Ms. Tatiana Metcalf	USA
2.	Ms. Arunrat Thepparat	Thailand	22.	Dr. Hirotake Mori	Japan
3.	Ms. Sirikul Kulanuwat	Thailand	23.	Ms. Sara Elena Canavati de la Torre	Mexico

Doctor of Philosophy in Clinical Tropical Medicine [Ph.D. (Clin.Trop.Med.)]					
No.	Name	Country	No.	Name	Country
Acad	lemic Year 2009		Acad	demic Year 2010	
1.	Dr. Ayodhia Pitaloka Pasaribu	Indonesia	1.	Dr. Bilal Ahmad Rahimi	Afghanistan
2.	Dr. Instiaty	Indonesia			
GRA	DUATES				
Gra	duate Diploma in Tropical Mee	dicine and Hyg	iene [D.	T.M.&H.]	
No.	Name	Country	No.	Name	Country
Acad	lemic Year 2009		Acad	demic Year 2010	
1.	Dr. Bilal Ahmad Rahimi	Afghanistan	10.	Dr. Dwiyanti Puspitasari	Indonesia
2.	Dr. Deena Kanagaraj	India	11.	Dr. Stefano di Gregorio	Italy
3.	Dr. Novie Homenta Rampengan	Indonesia	12.	Dr. Margherita Colarullo	Italy
4.	Dr. Maiko Kojiro	Japan	13.	Dr. Edoardo Fanti	Italy
5.	Dr. Tai Pei-Wen	Malaysia	14.	Dr. Hidenori Moriyama	Japan
6.	Dr. Kyawt K Khine	Myanmar	15.	Dr. Yoshihito Inakuma	Japan
7.	Dr. Kyi Lai Lai Aung	Myanmar	16.	Dr. Wataru Kashino	Japan
8.	Dr. May Myat Win	Myanmar	17.	Dr. Satoru Takeno	Japan
9.	Dr. Myat Thandar Aung	Myanmar	18.	Dr. Kentaro Ishida	Japan
10.	Dr. Ma Thit Sar Thwin	Myanmar	19.	Dr. Kenishi Nobusue	Japan
11.	Dr. Thu Zar Tin Maung	Myanmar	20.	Dr. Karoru Takahashi	Japan
12.	Dr. C. Thu Win	Myanmar	21.	Dr. Hototake Mori	Japan
13.	Dr. Than Htike Aung	Myanmar	22.	Dr. Thi Thai Kyaw	Myanmar
14.	Dr. Dipendra Sharma	Nepal	23.	Dr. Su Su Min Naing	Myanmar
15.	Dr. Brendan John Arnold	New Zealand	24.	Dr. Khin Myat Myat Lwin	Myanmar
16.	Dr. Zbigniew Porzecki	Poland	25.	Dr. Nay Yi Yi Linn	Myanmar
17.	Dr. Jay Isturis Buensuceso	Republic of	26.	Dr. Kyaw Thurein Tun	Myanmar
		the Philippines	27.	Dr. Khin Nyein Nyein	Myanmar
18.	Dr. Kulanum Leenutaphong	Thailand	28.	Dr. Khine New Win	Myanmar
19.	Dr. Veerachai Chevadisaikul	Thailand	29.	Dr. Nyan Lin Kyaw	Myanmar
			30.	Dr. Bo Bo Thet Ko	Myanmar
Acad	lemic Year 2010		31.	Dr. Thiri May	Myanmar
1.	Dr. Zarghoon Tareen	Afghanistan	32.	Dr. Wai Yan Aung	Myanmar
2.	Dr. Fazal Yamin	Afghanistan	33.	Dr. Sigrid Solhaug	Norway
3.	Dr. Pippa Dorothea proell	Austria	34.	Dr. Ahmed Abdi Dahir Mahallah	Somalia
4.	Dr. Brigitte Stelzhammer	Austria	35.	Dr. Brima Musa Younis Mahammed	Sudan
5.	Dr. Tapos Rema	Bangladesh	36.	Dr. Maria Ulla Elisabeth Isacsson	Sweden
6.	Dr. Juri Katchanov	Germany	37.	Dr. Sabine Dorothea Majer	Switzerland
7.	Dr. Yvonne Albrecht	Germany	38.	Dr. Kasemsuk Yothasamutr	Thailand
8.	Dr. Anik Bose	India	39.	Dr. Thitima Klomkleao	Thailand
9.	Dr. Roni Saha	India	40.	Dr. Wipaporn Natalie Songtaweesin	Thailand

### Master of Clinical Tropical Medicine [M.C.T.M.]

No.	Name	Country	No.	Name	Country
Acad	lemic Year 2009		Academic Year 2010		
1.	Dr. Veerachai Chevadisaikul	Thailand	3.	Dr. Wataru Kashino	Japan
2.	Dr. Chawalit Khumjai	Thailand	4.	Dr. Nyan Lin Kyaw	Myanmar
3.	Dr. May Myat Win	Myanmar	5.	Dr. Kyi Lai Lai Aung	Myanmar
4.	Dr. Aung Naing Soe	Myanmar	6.	Dr. Bo Bo Thet Ko	Myanmar
5.	Dr. Deena Kanagaraj	India	7.	Dr. Khine New Win	Myanmar
			8.	Dr. Khin Nyein Nyein	Myanmar
Academic Year 2010		9.	Dr. Brendan John Arnold	New Zealand	
1.	Dr. Than Htike Aung	Myanmar	10.	Dr. Ahmed Abdi Dahir Mahallah	Somalia
2.	Dr. Dipendra Sharma	Nepal	11.	Dr. Thitima Klomkleao	Thailand

Mas	Master of Clinical Tropical Medicine in Tropical Pediatrics [M.C.T.M. (Trop. Ped.)]					
No.	Name	Country		No.	Name	Country
Academic Year 2009			Academic Year 2010			
1.	Dr. Bilal Ahmad Rahimi	Afghanistan		1.	Dr. Zarghoon Tareen	Afghanistan
2.	Dr. Novie Homenta Rampengan	Indonesia		2.	Dr. Satoru Takeno	Japan
3.	Dr. Jay Isturis Buensuceso	Republic of		3.	Dr. Hidenori Moriyama	Japan
		the Philippines		4.	Dr. Dwiyanti Puspitasari	Indonesia
4.	Dr. C. Thu Win	Myanmar		5.	Dr. Brima Musa Younis Mohammed	Sudan
5.	Dr. Kyan Aung	Myanmar				

### Master of Science in Tropical Medicine [M.Sc.(Trop. Med.)]

No.	Name	Country	No.	Name	Country
Acad	Academic Year 2009		Academic Year 2010		
1.	Mr. Pham Anh Duc	Vietnam	1.	Dr. Kinley Wangdi	Bhutan
2.	Mr. Palle Pitiye Arambe		2.	Dr. Myo Nyein Aung	Myanmar
	Anuruddha Chandrasiri	Sri Lanka	3.	Dr. Don Buddhinda Rubasinghe	Sri Lanka
3.	Dr. Parana Hewage		4.	Dr. Youthanavanh Vonghachack	Laos
	Mangalasiri Jayathunge	Sri Lanka	5.	Mr. Wallop Pakdee	Thailand
4.	Ms. Supaporn Sukkasem	Thailand	6.	Ms. Thanaporn Nibaddhasobon	Thailand
5.	Ms. Kaewjai Malaithao	Thailand	7.	Ms. Chalermkwan Kuntawee	Thailand
6.	Mr. Sasikrit Theppabutr	Thailand	8.	Mr. Wit Wichaidit	Thailand
7.	Mr. Phubeth Ya-umphan	Thailand	9.	Ms. Piyanart Chalayon	Thailand
8.	Ms. Sirisobha Boonyotha	Thailand	10.	Ms. Uranan Tumkosit	Thailand
9.	Ms. Supparat Wannasilp	Thailand			
10.	Mr. Jaturong Wongsanit	Thailand			
11.	Ms. Khwananong Youngpakool	Thailand			
12.	Mr. Dilok Tongsukh	Thailand			
13.	Mr. Robert Hutagalung	Indonesia			

### Doctor of Philosophy in Tropical Medicine [Ph. D. (Trop. Med.)]

No.	Name	Country	No.		Country
Acad	Academic Year 2009		Aca	demic Year 2010	
1.	Ms. Megumi Sato	Japan	1.	Ms. Urusa Thaenkham	Thailand
2.	Mr. Archin Songthap	Thailand	2.	Ms. Ratchanok Kumsiri	Thailand
3.	Ms. Rungrawee Topmontree	Thailand	3.	Ms. Preeyaporn Monatrakul	Thailand
4.	Mr. Kamlang Chumpolbanchorn	Thailand	4.	Mr. Apichat Vitta	Thailand
5.	Ms. Sriwipa Chuangchaiya	Thailand	5.	Mr. Patthanasak Khammaneechan	Thailand
6.	Ms. Suchada Sumruayphol	Thailand	6.	Ms. Putri Chaiani Eyanoer	Indonesia
7.	Ms. Pannamthip Pitaksajjakul	Thailand	7.	Mr. Ghulam Rahim Awab	Afghanistan
8.	Mr. Tawee Saiwichai	Thailand	8.	Mr. Mega Raj Banjara	Nepal
9.	Ms. Waranee Bunchuailua	Thailand	9.	Ms. Rie Takeuchi	Japan
10.	Ms. Natharinee Horata	Thailand			
11.	Ms. Rawiwan Srisawat	Thailand			
12.	Mr. Aongart Mahittikorn	Thailand			
13.	Ms. Chintana Pawong	Thailand			
14.	Ms. Pachuen Potup	Thailand			
15.	Mr. Jakkrawarn Chompoosri	Thailand			
16.	Ms. Doungrat Riyong	Thailand			
17.	Ms. Pruksa Nawtaisong	Thailand			

Doctor of Philosophy in Clinical Tropical Medicine [Ph.D. (Clin.Trop.Med.)]					
No. Name	Country	No.	Name	Country	
Academic Year 2009		Academic	Year 2010		
None		None	2		

### THEMATIC PAPERS

THEMATIC PAPERS				
Master of Clinical Trop	ical Medicine			
Department of Clinical Tr	opical Medicine			
Student	Advisor	Title		
Dr. May Myat Win	Asst. Prof. Wirach Maek-a-nantawat	Virological and immunological outcomes of the second-line regimen of antiretroviral therapy among HIV-infected patients in a resource-limited setting		
Dr. Veerachai Chevadisaikul	Prof. Punnee Pitisuttithum	Clinical manifestations and outcomes of hospitalized patients with influenza during the outbreak in year 2009 at Chonburi Hospital, Thailand		
Dr. Peiwen Tai	Dr. Wirongrong Chierakul	Weil's syndrome in hospitalized patients with clinically diagnosed leptospirosis at Sisaket Hospital, Thailand		
Dr. Deena Kanagaraj	Dr. Supat Chamnanchanunt	Bleeding manifestations and platelet profiles of dengue adult patients at Hospital for Tropical Diseases, Bangkok, Thailand		
Dr. Chowalit Khumjui	Asst. Prof. Valai Bussaratid	Eosinophilia among clients visiting Hospital for Tropical Diseases Year 2008		
Dr. Aung Naing Soe	Asst. Prof. Wirach Maek-a-nantawat	Evaluation of long-term outcomes of HIV patients who initiated treatment with NNRTI-based ART in 2004, at Bamrasnaradura Infectious Diseases Institute		
Dr. Than Htike Aung	Asst. Prof. Jittima Dhitavat	Uretharitis in male, youth Clinic, Bangrak Hospital		
Dr. Dipendra Sharma	Dr. Watcharapong Piyaphanee	Detection of Chikungunya seropositivity in Thai travelers to the Southern part of Thailand		
Dr. Wataru Kashino	Dr. Watcharapong Piyaphanee	Incidence of rabies exposure among Japanese expatriates and travelers in Thailand		
Dr. Nyan Lin Kyaw	Prof. Punnee Pitisuttithum	Baseline CD4 count and outcomes among adult HIV patients after initiation of HAART therapy at Ramathibodi Hospital		
Dr. Kyi Lai Lai Aung	Dr. Supat Chamnanchanunt	Evaluation of dengue classifications in adult patients with dengue infection at Hospital for Tropical Diseases, Bangkok, Thailand		
Dr. Bo Bo Thet Ko	Asst. Prof. Weerapong Phumratanaprapin	The clinical manifestations and hepatic involvement of dengue infection in adults		
Dr. Khine Nwe Win	Assoc.Prof. Wattana Leowattana	Pre-treatment viral load and clinical outcome in chronic hepatitis B patients after one year therapy with nucleoside or nucleotide analogues		
Dr. Khin Nyein Nyein	Prof. Punnee Pitisuttithum	Immune restoration inflammatory syndrome (IRIS) in AIDS patients with cryptococcal meningitis receiving HAART		
Dr. Brendan John Arnold	Prof. Plorat Wilairatana	Predictors of shock in adult patients with severe Plasmodium falciparum malaria		
Dr. Ahmed Abdi Dahir Mahallah	Prof. Plorat Wilairatana	Predictors of ARDS or pulmonary edema in patients with severe <i>P. falciparum</i> malaria		

### Master of Clinical Tropical Medicine (Tropical Pediatrics)

Asst. Prof. Valai Bussaratid

Department of Tropical Pediatrics				
Student	Advisor	Title		
Dr. Bilal Ahmad Rahimi	Prof. Krisana Pengsaa	Tuberculous meningitis in Queen Sirikit National Institute		
		of Child Health, Thailand		
Dr. Novie Homenta Rampengan	Assoc. Prof. Chukiat Sirivichayakul	Clinical features of gastrointestinal salmonellosis in QSINCH,		
		Thailand		
Dr. Jay Isturis Buensuceso	Asst. Prof. Watcharee Chokejindachai	Unusual manifestations of dengue infection at Queen		
		Sirikit National Institute of Child Health, Bangkok, Thailand		
Dr. C. Thu Win	Asst. Prof. Kriengsak Limkittikul	Clinical risk factors of severely dehydrated childhood diarrhea		
		in Queen Sirikit National Institute of Child Health, Thailand		

A comparison in effectiveness, safety and tolerability of GPO VIRS and GPO-VIRZ as initial therapy in HIV-1 infected adults

Dr. Thitima Klomkleao

Department of Tropical F	Department of Tropical Pediatrics				
Student	Advisor	Title			
Dr. Kyan Aung	Dr. Wirawan Hattasingha	Clinical difference between hospitalized pediatric pandemic			
		H1N1 2009 influenza and other acute respiratory tract infection			
		in Queen Sirikit National Institute of Child Health, Thailand			
Dr. Zarghoon Tareen	Asst. Prof. Watcharee Chokejindachai	Risk factors of mortality outcome of neonatal septicemia			
		in Srinagarind Hospital, Thailand			
Dr. Satoru Takeno	Asst. Prof. Kriengsak Limkittikul	Risk factors and outcome of atypical acute post-streptococcal			
		glomerulonephritis in pediatrics			
Dr. Hidenori Moriyama	Prof. Krisana Pengsaa	Clinical characteristics and outcomes in childhood bacterial			
		meningitis in Srinagarind Hospital, Thailand			
Dr. Dwiyanti Puspitasari	Assoc. Prof. Chukiat Sirivichayakul	Clinical risk factors of invasive non-typhoidal salmonellosis			
		in infants and children in Srinagarind Hospital, Thailand			
Dr. Brima Musa Younis	Dr. Weerawan Hattasingh	Characteristics of opportunistic infections in HIV-infected			
Mohammed		children during pre-HAART and HAART era in Srinagarind			
		Hospital, Thailand			

### Master of Clinical Tropical Medicine (Tropical Pediatrics) (Continued)

### THESIS TITLE Doctor of Philosophy in Tropical Medicine Program [Ph.D. (Trop. Med.)]

Department	Name	Title of Thesis	Adviser
Helminthology	Ms. Megumi Sato	Application of the ribosomal DNA based	Assoc. Prof. Jitra Waikagul
		copro-PCR for the diagnosis of Opisthorchis	
		viverrini infection in human	
Tropical Hygiene	Mr. Archin	Acceptability of HIV vaccine in adolescents,	Prof. Punnee Pitisuttithum
	Songthap	educators, parents and health care providers:	
		assessment and educational tools	
Social and	Ms. Rungrawee	Health promotion program for malaria prevention:	Assoc. Prof. Wijitr Fungladda
Environmental	Tipmontree	utilization of insecticide-treated nets in a	
Medicine		multicultural community, Kanchanaburi Province	
Protozoology	Mr. Kamlang	Genetic characterization of Toxoplasma gondii	Assoc. Prof. Yaowalark Sukthana
	Chumpolbancha	in Thai free-range chicken	
Clinical Tropical	Ms. Sriwipa	Plasmodium vivax alters immunosuppression	Assoc.Prof. Kesinee Chotivanich
Medicine	Chuangchaiya	caused by Plasmodium falciparum infections	
Medical	Ms. Suchada	Anopheles sundaicus population dynamics,	Assoc. Prof. Chamnarn Apiwathnasorn
Entomology	Sumruaypholn	species complex and insecticide susceptibility	
		in a coastal area of Rayong Province, Thailand	
Social and	Ms. Pannamthip	Construction of antibody phage library	Asst. Prof. Pongrama Ramasoota
Environmental	Pitaksajjakul	specific to H5N1 avian influenza virus	
Medicine			
Tropical Hygiene	Mr. Tawee	The effect of green tea extract to serum level	Assoc. Prof. Pratap Singhasivanon
	Saiwichai	of pro-inflammatory cytokines in cigarette	
		smoke inhalation rat model	
Tropical Hygiene	Ms. Waranee	Detection of adverse drug reaction signal in	Assoc. Prof. Pratap Singhasivanon
	Bunchuailua	the Thai FDA database: comparison between	
		reporting odds ratio and Bayesian confidence	
		propagation neuron network method	
Microbiology and	Ms. Natharinee	Polymorphism and function of PfEMP1	Prof. Srisin Khusmith
Immunology	Horata	extracellular domains in Thai Plasmodium	
		falciparum isolates causing severe and	
		uncomplicated malaria	
Medical	Ms. Rawiwan	The effect of gene mutations to the voltage	Assoc. Prof. Narumon Komolmisra
Entomology	Srisawat	gated sodium channel in resistant pyrethroid	
		Aedes aegypti	

### Doctor of Philosophy in Tropical Medicine Program [Ph.D. (Trop. Med.)] (Continued)

Department	Name	Title of Thesis	Adviser
Protozoology	Mr. Aongart Mahittikorn	Study on <i>Toxoplasma gondii</i> tachyzoite and bradyzoite stage conversion reaction in experimental mice and human clinical specimens	Assoc. Prof. Yaowalark Sukthana
Microbiology and Immunology	Ms. Chintana Pawong	TH1 cytokine and polymorphisms in relation to malaria severity	Prof. Srisin Khusmith
Tropical Pathology	Ms. Pachuen Potup	Immunoglobulin class switching induced by Plasmodium falciparum in vitro	Assoc. Prof. Yaowapa Maneerat
Medical Entomology	Mr. Jakkrawarn Chompoosri	Development of integration assay system in mosquito cell cultures to evaluate the potential of serine-catalyzed, site-specific recombinases for effective genetic manipulation	Assoc. Prof. Narumon Komalamisra
Helminthology	Ms. Duangrat Riyong	Studying endothelial cell activation following <i>Plasmodium falciparum</i> infected erythrocyte binding <i>in vitro</i>	Assoc. Prof. Jitra Waikagul
Medical Entomology	Ms. Pruksa Nawtaisong	Effective expression of dengue fever virus in mosquito cell cultures using retroviral transduction of hammerhead ribozymes targeting the viral genome	
Helmonthology	Ms. Urusa Thaenkham	Systematics of Subfamily Haplorchinae Loose, 1899 (Trematoda: Heterophyidae) using molecular and morphological characters	Assoc. Prof. Jitra Waikagul
Tropical Pathology	Ms. Ratchanok Kumsiri	Blood stage <i>P. falciparum</i> antigen induce T cell independent B cell activation	Assoc. Prof. Yaowapa Maneerat
Clinical Tropical Medicine	Ms. Preeyaporn Monatrakul	Immunological and pharmacological determinants of the therapeutic response to antimalarial drugs <i>in vitro</i>	Assoc. Prof. Kesinee Chotivanich
Helminthology	Mr. Apichat Vitta	Analysis for the expressed protein from Angiostrongylus cantonensis cDNA library for immunodiagnosis of angiostrongyliasis	Assoc. Prof. Paron Deekumyoy
Social and Environmental Medicine	Mr. Patthanasak Khammaneechan	Social impact assessment of central healthcare waste incinerator project in Yala Province	Assoc. Prof. Kamolnetr Okanurak
Tropical Hygiene	Ms. Putri Chaiani Eyanoer	Spatial and temporal distribution of human avian influenza infection in relation to surveillance implementation in Indonesia	Asst. Prof. Jaranit Kaewkungwal
Clinical Tropical Medicine	Mr. Ghulam Rahim Awab	Comparative efficacy and safety of dihydroartemisinin-piperaquine (DHA-PQP) and chloroquine for treatment of vivax malaria in Afghanistan	Prof. Sasithon Pukrittayakamee
Protozoology	Mr. Mega Raj Banjara	Molecular epidemiology of drug resistant <i>Plasmodium falciparum</i> in Nepal	Assoc. Prof. Porntip Petmitr
Helminthology	Ms. Rie Takeuchi	Factors related to reappearance of <i>Plasmodium vivax</i> malaria	Assoc. Prof. Jitra Waikagul

### Master of Science in Tropical Medicine Program [M.Sc. (Trop. Med.)]

Department	Name	Title of Thesis	Adviser
Microbiology and	Mr. Pham Anh	Characterization and genotyping of Hepatitis	Dr. Pornsawan Lueangwuttiwong
Immunology	Duc	C virus on core and NS5B regions in	
		Vietnamese blood donors	
Social and	Mr. Palle Pitiye	A case control study on environmental sanitation	Asst. Prof. Voranuch Wangsuphachart
Environmental	Arambe Anuruddha	deficit and the diarrheal disease in semi urban	
Medicine	Chandrasiri	community, Pathumthani Province, Thailand	
Clinical Tropical	Dr. Parana	Abnormal pap smears and psychosocial	Prof. Punnee Pitisuttithum
Medicine	Hewage	burden of abnormal pap smears on HIV	
	Mangalasiri	infected women in Chonburi, Hospital	
	Jayathunge	Chonburi, Thailand	

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Master of Science in Tropical Medicine Program [M.Sc. (Trop. Med.)] (Continued)				
Department	Name	Title of Thesis	Adviser	
Microbiology and Immunology	Ms. Supaporn Sukkasem	Molecular patterns of recurrent tuberculosis in Thailand	Prof. Srisin Khusmith	
Microbiology and	Ms. Kaewjai	Validation of electronic air filter for filtration	Asst. Prof. Pongrama Ramasoota	
Immunology	Malaithao	<i>Mycobacterium tuberculosis</i> and virus from contaminated air		
Medical	Mr. Phubeth	Seasonal variation of morphometric	Assoc. Prof. Narumon Komalamisara	
Entomology	Ya-umphan	properties and trans-ovarial transmission in natural population of <i>Aedes aegypti</i>		
Social and	Ms. Sirisobha	A survey on vector-borne and water-borne	Assoc.Prof. Piyarat Butraporn	
Environmental	Boonyotha	diseases in Klong Aae hydropower dam		
Medicine		construction project, Surat Thani Province, Thailand		
Clinical Tropical	Ms. Supparat	Study of solubility and efficacy of antimalarial	Assoc. Prof. Kesinee Chotivanich	
	Wannasilp	drugs on Plasmodium falciparum		
Social and	Mr. Jaturong	Risk assessment of nitrate contamination in	Asst. Prof. Suwalee Worakhunpiset	
Environmental	Wongsanit	groundwater using geoinformatics		
Medicine				
Microbiology and	Ms. Khwananong	Binding characterizations of Southeast Asian	Assoc. Prof. Wipawee Jampa-ngen	
Immunology	Youngpakool	dengue 2 virus and American dengue 2 viruses		
		with single E gene amino acid substitutions		
Tropical Hygiene	Mr. Dilok	TB infection and treatment among refugees	Asst. Prof. Jaranit Kaewkungwal	
	Tongsukh	in Thamhin Camp, Ratchaburi Province Thailand		
Tropical Hygiene	Mr. Robert	Dynamics of Plasmodium gametocytes in A rural	Asst. Prof. Jaranit Kaewkungwal	
	Hutagalung	community on the western border of Thailand		
Tropical Hygiene	Dr. Kinley Wangdi	Spatio-temporal modeling of malaria infection:	Asst. Prof. Jaranit Kaewkungwal	
		A study in endemic districts of Bhutan		
Clinical Tropical	Dr. Myo Nyein	Treatment outcome of chronic hepatitis B	Assoc. Prof. Wattana Leowattana	
Medicine	Aung	genotype B and C at hospital for Tropical		
		Diseases, Bangkok, Thailand		
Social and	Dr. Don	A case control study of environmental and	Asst. Prof. Voranuch Wangsuphachart	
Environmental	Buddhinda	behavioral risk factors of acute diarrhea and its		
Medicine	Rubasinghe	economical impact, in and agricultural community, at Moh Area girandurukotte, Sri Lanka		
Helminthology	Dr. Youthanavanh Vonghachack	Gnathostoma and gnathostomiasis in three provinces of Lao PDR	Assoc. Prof. Jitra Waikagul	
Helminthology	Mr. Wallop	Application of iso-electric focusing Bithynia	Assoc. Prof. Paron Dekumyoy	
	Pakdee	snail antigen for ELISA IgG-subclass detection of human opisthorchiasis		
Microbiology and	Ms. Thanaporn	Molecular diversity of Listeria monocytogenes	Dr. Nitaya Indrawattana	
Immunology	Nibaddhasobon	isolates from raw pork and chicken in various markets		
Social and	Ms. Chalermkwan	Social and behavioral factors relate to quality	Assoc. Prof. Wijitr Fungladda	
Environmental	Kuntawee	of life among HIV infected children		
Medicine				
Tropical Hygiene	Mr. Wit Wichaidit	Maternal and child care in low-resource setting: a case study in Suan Phung distric, Ratchauri	Asst.vProf. Jaranit Kaewkungwal	
		Province		
Microbiology and	Ms. Piyanart	Expression of leptospiral recombinant protein	Asst. Prof. Thareerat Kalambaheti	
Immunology	Chalayon	for serodiagnosis		
Microbiology and	Ms. Uranan	Polymorphisms of TBX21 gene their association	Dr. Jintana Patarapotikul	
Immunology	Tumkosit	with malaria severity in Thailand		

### Master of Science in Tropical Medicine Program [M.Sc. (Trop. Med.)] (Continued)

### **STUDENT PRESENTATIONS**

### Joint International Tropical Medicine Meeting 2009

### 3-4 December 2009

Presenting author	Oral presentation
Apichat Vitta	Production of Angiostrongylus cantonensis 81-kDa recombinant fusion protein and its possible
	application in immunoblot diagnosis of human angiostrongyliasis
Megha Raj Banjara	Sulfadoxine-pyrimethamine resistant molecular markers in Plasmodium falciparum from eastern
	and central Nepal
Narumon Chamwimalueang	Treatment-phase outcome of twisting tourniquet decongestive therapy for lymphedema
Pannamthip Pitaksajjakul	Recombinant Fab antibody that is specific to the hemagglutinin antigen developed for
	therapeutic and diagnostic application
Parkpoom Piyaman	Transition of prelymphatics into the lymphatics in hepatic portal tract as revealed by three-
	dimensional reconstructions
Pruksa Nawtaisong	Development of a conventional PCR assay to obtain the full length open reading frame of
	the 56-kDa outer membrane protein gene of Orientia tsutsugamushi
Rie Takeuchi	Factors related to reappearance of <i>Plasmodium vivax</i> malaria
Chalermkwan Kuntawee	Social factors related to quality of life among HIV-infected children in Ubonratchathani Province,
	Thailand
Chanyapat Nitatsukprasert	Molecular detection of <i>Entamoeba coli</i> from surface and wastewater samples
Natharinee Horata	Association of polymorphic PFEMP1-DBLA sequence and rosette formation in <i>Plasmodium</i>
N. H D'all a	falciparum isolates causing severe and uncomplicated malaria
Nattapon Pinthong	The mutation of <i>Plasmodium falciparum</i> chloroquine resistance transporter (PFCRT) codon
Divotido Tanatoorowattana	72-76 found in endemic areas of Thailand Relative levels of IL4/IFN-A and anti- <i>P. faciparum</i> antibody isotype profiles in association with
Piyatida Tangteerawattana	IL4 polymorphism and severity of malaria
Preeyaporn Monatrakul	Effects of dihydroartemisinin on the multiplication rate of <i>P. falciparum</i> and its relevance to
	therapeutic response
Ratchanok Kumsiri	T independent <i>Plasmodium falciparum</i> antigen induces immunoglobulin production via B cell
	activation factor (BAFF) pathway
Rungrat Nintasen	Effects of TNF-alpha and 17-beta estradiol on pathological changes in human saphenous vein
5	with intimal hyperplasia: <i>ex vivo</i> study
Siriwipa Chuangchaiya	Immune response to Plasmodium vivax has a potential to reduce malaria severity
Supatchara Nakeesathit	Molecular correlates of high level antifolate resistance in Rwandan children with Plasmodium
	falciparum malaria
Wachiraphan Jittham	Phylogeny of head lice (Pediculus capitis) among primary schools in Suanpueng District,
	Ratchaburi Province
Wallop Pakdee	Isoelectric focusing Bithynia snail antigens for IgG- and IgG1-4-ELISA to detect human
	opisthorchiasis
Wantana Paveenkittiporn	Genetic specification of environmental Legionella isolates in Thailand
Wit Wichaidit	Maternal and child health in a marginalized community along the Thai-Myanmar border area,
	Suan Phung District, Ratchaburi Province

### The 6<sup>th</sup> Seminar on Food- and Water-borne Parasitic Zoonoses (FBPZ6)

# 2-4 December 2009 Presenting author Oral presentation Rachatawan Chiabchalard Giardia and Cryptosporidium contamination in surface water: from where, by how and does identification matter? Youthanavanh Vonghachack Gnathostomiasis in three provinces of Lao PDR

#### Joint International Tropical Medicine Meeting 2010

#### 1-3 December 2010

Presenting author	Oral presentation		
Siriphan Boonsilp	Molecular identification of pathogenic Leptospira spp. in culture-negative clinical samples		
Ladawan Sariya	Development of polyprotein 3ABC and FAB MAB for foot and mouth disease virus diagnosis		
	and differentiation between infected and vaccinated animals		
Apinya Pumpuang	Survival of Bukholderia pseudomallei in the absence of nutrients		
Chayanee Setthapramote	Human monoclonal antibody preparation against dengue virus using peripheral blood		
	mononuclear cells (PBMCs) from dengue patients at acute and convalescent phases		
Ladawan Wasinpiyamongkol	Predominant saliva proteins expression of blood-feeding Aedes aegypti		
Thipruethai Phanitchat	Convergent habitat segregation of Aedes albopictus and Aedes aegypti (Diptera: Culicidae)		
	in Chikungunya high incidence areas in Thailand		
Wachiraphan Chittham	Community structure of anopheline mosquitoes in Kaeng Hang Maeo District, Chanthaburi		
	Province		
Aunchalee Thanwisai	Isolation of entomopathogenic nematodes and associated Xenorhabdus IPhotorhabdus spp.		
	In Thailand		
Chatnapa Duangdee	The espression of human $\beta$ -defensins in <i>Plasmodium falciparum</i> infected patients		
Nattapon Pinthong	Plasmodium falciparum chloroquine resistance transporter haplophytes in Thai patients		
Chintana Phawong	Functional association of IL12B, IFNG and IFNGR1 polymorphisms with hyperparasitaemia		
	and circulating IL12P40 and IFN <sub>Y</sub> in Thai adults with severe falciparum malaria		
Piyatida Tangteerawatana	Impact of IL4 gene polymorphism and previous malaria experiences on anti-Plasmodium		
	faclciparum antibody isotype profiles and malaria severity		
Tippawan Sungkapong	Antibody response to Plasmodium vivax subtelomeric transmembrane protein (PVSTP), a		
	homolog of Plasmodium falciparum surfin, in P. vivax-infected patients		
Jitbanjong Wiengcharoen	Seroprevalence of toxoplasmosis and nerospososis in beef cattle slaughtered in Nakhonpratom		
	Province, Thailand		
Doungrat Riyong	Comparative diagnosis of Bancroftian filariasis using crude and partially purified Dirofiliria		
	immitis antigens by immunoblot		
Wantana Paveenkittiporn	Invasive efficacy of non-pneumophilia Legionella species on human macrophage cell line		
C Thu Win	Clinical risk factors of severely dehydrated childhood diarrhea in Queen Sirikit National Institute		
	of Child Health, Thailand		
Apichat Vitta	A survey of intestinal helminthes of wild rats in Phitsanulok		
Sara Canavati	Use of administrative data to estimate mass vaccination campaign coverage, Tak Province,		
	Thailand, 2009-2010		

#### AWARDS

Ms. Pannamthip Pitaksajjakul, as a team member, received the National Inventor Award 2009 in Medical Sciences from National Research Council of Thailand (NRCT) for the invention of "Indoor and outdoor bio-aerosol collector and air filter tested equipment" of which Asst. Prof. Pongrama Ramasoota was the Principle Investigator. Mr. Archin Songthap, a 2010 graduate in Ph.D. (Tropical Medicine) program, received a Dean's List Award by the Faculty

of Graduate Studies for his outstanding record.

#### SCHOLARSHIP AND FINANCIAL SUPPORT

Faculty of Tropical Medicine partially support students' fee by offering one-year scholarships to M.Sc. (Tropical Medicine) and Ph.D. (Tropical Medicine) students who get the highest score in Tropical Medicine during their entrance examination. In AY 2009, the scholarships went to Ms. Supatchara Nakeesathit and Mr. Thiranut Ramutton.

In AY 2010, the Faculty initiated a scholarship program, comprising 10 scholarships, in order to increase the number of students in M.Sc. (Tropical Medicine) and Ph.D. (Tropical

Medicine) programs by giving a maximum of 3-years scholarship to qualified Ph.D. candidates or 2-years scholarship to qualified M.Sc. candidates. However, there were only two recipients in the first year of program implementation: Ms. Siriphan Boonsilp and Ms. Wanida Chuenta, both from Ph.D. (Tropical Medicine) program.

Some of our students received their scholarships and financial support from external funding agencies. Those agencies and the recipients are listed in the table below.

	Recipients	
Funding Agency	AY 2009	AY 2010
SEAMEO TROPMED	-	Dr. Dwiyanti Puspitasari
Global Fund for Malaria Control	Dr. Nguyen Ngoc Vinh	Dr. Nguyen Ngoc Vinh
Vietnam	Dr. Truong Trung Kien	Dr. Truong Trung Kien
WHO (World Health Organization)	Dr. Sujan Babu Marahatta	Dr. Sujan Babu Marahatta
	Dr. Md. Shamsuz Zaman	Dr. Md. Shamsuz Zaman
Government of Bangladesh	Dr. Mohammas Jahirul Karim	Dr. Mohammas Jahirul Karim
Ministry of Health, Bhutan	Mr. Kinley Wangdi	-
DAAD	Dr. Wai Lin HtunDr. Wai Lin Htun	
(Deutscher Akademischer Austausch Dienst)	Dr. Myo Nyein Aung	Dr. Myo Nyein Aung
	Dr. Nyan Win Myint	Dr. Nyan Win Myint
	Dr. Thant Phyu Sin Htike	Dr. Thant Phyu Sin Htike
	Ms. Chalalai Ruenghiran	-
TICA	Dr. Don Buddhinda Rubasingha	-
(Thailand International Development	Dr. Huynh Ngoc Son	Dr. Huynh Ngoc Son
Cooperation Agency)	Dr. Sitepu Monika	Dr. Sitepu Monika
	Dr. Paudel Damodar	Dr. Paudel Damodar
	Dr. Than Htike Aung	Dr. Htun Oo Saw
	Dr. C Thu Win	Dr. L.H.K.N. Deepika
OHEC	Mr. Manus Kotepui	Mr. Manus Kotepui
(Office of Higher Education Commission)	Ms. Suda Tunpiboonsak	Ms. Suda Tunpiboonsak
	Ms. Aunchalee Thanwisai	Ms. Aunchalee Thanwisai
	Ms. Pikul Thepsuriyanon	Ms. Pikul Thepsuriyanon
	Ms. Amornrat Anuwatnonthakate	-
DPST	-	Ms. Sarin Suwanpakdee
(Development and Promotion of Science		
and Technology Talents Project)		
RGJ Ph.D. Program	Mr. Khuanchai Koompapong	Mr. Khuanchai Koompapong
(Royal Golden Jubilee Ph.D. Program)	Ms. Ingfar Soontarawirat	Ms. Ingfar Soontarawirat
	Ms. Chayanee Setthapramote	Ms. Chayanee Setthapramote
	Ms. Chonlatip Pipattanaboon	Ms. Chonlatip Pipattanaboon
	Ms. Sivaporn Wannaiampikun	Ms. Sivaporn Wannaiampikun
	Ms. Sumonmal Uttayamakul	Ms. Sumonmal Uttayamakul
	Ms. Jitlada Vasuvat	Ms. Jitlada Vasuvat
	Ms. Paviga Limudomporn	Ms. Paviga Limudomporn
	Ms. Supinya Tanapongpichat	Ms. Supinya Tanapongpichat
	Ms. Chaowanee Chupeerach	Ms. Chaowanee Chupeerach
	Ms. Kanokkarn Pothong	Ms. Kanokkarn Pothong
	-	Ms. Sirikul Kulanuwat

In addition, the Faculty supports students' research activities by offering 'Research Supplies Fee' to those who successfully pass their proposal examination. In this regards, M.Sc. candidates shall receive a total amount of 12,000 THB and Ph.D. candidates shall receive 24,000 THB.

# STUDENT ACTIVITIES

A susual, every year we organize many activities for our students. For example, we organize events for Songkran Festival, Wai Khru Day, Freshy Day (Welcome first year students), Sport Month and Academic Forum, as well as a Cultural Visit on Welcome day and subsequent visits to the Royal Chitralada Projects and Bangkok Youth (Thai-Japan) Sport Centre, where membership is offered to students. We aim to support and encourage our students, by helping them to adapt to a comfortable lifestyle in Bangkok and at our campus. To achieve our aim, we have extra facilities like student activity rooms, which include a small library with two computers, mini-fitness area with cable TV (UBC), table tennis and many indoor games.

Our students can experiences Thai culture and lifestyle, stay healthy, have fun, and or just relax. These activities also give opportunities to our students to share their own experiences, cultures and so on, which will help to foster a community within our students and hopefully establish a network to share information and help each other in the future.

We have a Student Affairs Committee that discuss new ideas and how to improve the student activities. Our Student Affairs team is always willing to help our students and try our best cater to each student's needs. In addition, as a Deputy Dean for Student Affairs and Special Activities, I also offer my mobile phone number to be a hotline for our students so that they can consult and contact me anytime whenever they have a problem or need help.



Asst.Prof. Dr. Chotechuang Panasoponkul Deputy Dean for Student Affairs







## **STUDENT ACTIVITIES**

1 January - 31 December 2010

					Participants		
		Activity	Time	Place	Student	Lecturer/	Other
						Staff	person
	1.	Community and Social Service					
		Field Trip 1	16-18 Jun. 10	Kanjanaburi Province	49	16	-
		Field Trip 2	14-16 Jul. 10	Ratchaburi Province	43	6	-
		Field Trip 3		Ubol Ratchathani	43	12	-
				Province			
		Eco-trip	11-12 Sep. 10	Khlonglan National Park,	63	6	3
				Kamphangphet Province			
	2.	Art & Cultural					
		Songkran Day	9 Apr. 10	Fac. of Trop. Med.	100	16	-
		D.T.M. & H. Cultural Visit at	24-25 Apr. 10	Kanjanaburi Tropical	43	11	3
		Kanjanaburi Tropical Diseases		Diseases Center			
		Center, Kanjanaburi Province					
		Freshy Day	3 Jun. 10	Fac. of Trop. Med.	110	38	-
		His Majesty Project in	9 Jun. 10	Chitlada Palace	39	3	-
		Chitlada Palace					
		Mahidol University	30 Jun. 10	Fac. Of Medicine,	60	11	9
		International Day		Ramathibodi			
		Wai Khru Day	8 Jul. 10	Fac. of Trop. Med.	103	61	-
		M.Sc. & Ph.D. Cultural Visit at	20-21 Nov. 10	Rajanagarinda	41		
		Rajanagarinda International		International Tropical			
		Tropical Diseases Center,		Diseases Center,			
_	2	Ratchaburi Province					
	3.	Virtue & Moral Developing DTM&H Student Orientation	1 Apr 10	Fac of Trop Mad	43	7	
		M.Sc. & Ph.D. Student	1 Apr. 10	Fac. of Trop. Med.	43	7	-
		Orientation	31 May 10	Fac. of Trop. Med.	43	/	-
		Freshy Day	3 Jun. 10	Fac. of Trop. Med.	110	38	
		His Majesty Project in Chitlada	9 Jun. 10	Chitlada Palace	39	3	-
		Palace	5 Jun. 10		66	c	
		Wai Khru Day	8 Jul. 10	Fac. of Trop. Med.	103	61	_
		Eco-trip	11-12 Sep. 10	Khlonglan National Park,	63	6	3
			11 12 Jep. 10	Kamphangphet Province	00	0	5
	4.	Academic Affairs					
		The Student Affairs	1 time/	Fac. of Trop. Med.	6	12	_
		Committee Meetings	2 months		Ŭ		
		Student Academic Forum 1		Fac. of Trop. Med.	52	25	-
		Student Academic Forum 2		Kanjanaburi Tropical	54	20	10
				Diseases Center			
		Thai Language Teaching	May-Jun. 10	Fac. of Trop. Med.	12	1	-
		mar Language Teaching	indy Juli. 10	rae. of hop. Med.	12	1	

			Participants			
	Activity	Time	Place	Student	Lecturer/	Other
					Staff	person
5	5. Sports - Daily sports & games					
	Take students to apply	21 Apr. 10	Thai-Japan Youth Sports	43	3	-
	the member card at Thai-Japan		Center			
	Youth Sports Center					
	Student Sports Month	12 Jul	Fac. of Trop. Med.	78	22	-
		11 Aug. 10				
	Student Activity Room	All year	5 <sup>th</sup> Floor, Chamlong Bldg.	1-20/day	1-2/Day	-
	(indoor games)					
e	5. Development potential					
	and Skill					
	D.T.M. & H. Meeting to choose	25 Apr. 10	Fac. of Trop. Med.	43	11	-
	President					
	Field Trip 1	16-18 Jun. 10	Kanjanaburi Province	49	16	-
	Field Trip 2	14-16 Jul. 10	Ratchaburi Province Ubol	43	6	-
	Field Trip 3		Ratchathani Province	43	12	
	Student Academic Forum 1		Fac. of Trop. Med.	52	25	-
	Student Academic Forum 2		Kanjanaburi Tropical	54	20	10
			Diseases Center			
7	7. Others					
	Thai Language Teaching	May-Jun. 10	Fac. of Trop. Med.	12	1	-
	Mahidol Graduated Ceremony	1-5 Jul. 10	Fac. of Trop. Med. and	27	4	-
			Thai Navy Conference			
			Room			
	Student and Lecturer	9 Aug. 10	Fac. of Trop. Med.	83	30	-
	Group Photo					
	International Student Centre	All year	3 <sup>rd</sup> Floor, Chamlong Bldg.	-	3	-
	Student Activity Room Services	All year	5 <sup>th</sup> Floor, Chamlong Bldg.	-	1-2/Day	-
	Student Information Service	All year	Fac. of Trop. Med	all students	2	-
	by e-mail					



# THE HOSPITAL FOR TROPICAL DISEASES



Asst. Prof. Udomsak Silachamroon Director MD (2<sup>nd</sup> Class honor ), Dip in Clin Sc (Med), MSc, Dip (Thai Board of Internal Medicine), Dip (Pulmonary Medicine, FCCP) E-mail: tmus@mahidol.ac.th Tel./Fax: 0 2354 9168, 0 2354 9100-04 ext. 1423



The Hospital for Tropical Diseases was established by the late Professor Emeritus Chamlong Harinasuta and the late Professor Khunying Tranakchit Harinasuta. It commenced operations on 23 February 1961. It forms an integral part of the services provided by the Faculty of Tropical Medicine, Mahidol University

In the beginning, the Hospital only had a small OPD and 20 in-patient beds. Throughout its 49 years, the Hospital has continuously developed. It is nowrecognized as a highly reputable, specialized expert facility for treating patients with tropical diseases. Nowadays, the Hospital has 250 beds, 41 medicaldoctors, 73 nurses, and 93 nurse assistants. Last year, it served 57,086 out-patients and 1,776 in-patients. Although it is a center for tropical diseases treatment and research, our staff members can treat patients with general medical problems and pediatric problems, such as diabetes, hypertension, lung disease, renal disease and liver disease. We have many special clinics, including clinics for gnathostomiasis, dermatological disease, travel medicine, and Chinese traditional acupuncture.

Apart from its core health services, the Hospital also provides strong support to the Faculty's research and educational activities in the field of tropical medicine.





## DIRECTOR OF THE HOSPITAL FOR TROPICAL DISEASES



Asst. Prof. Udomsak Silachamroon E-mail: tmusl@mahidol.ac.th

# DEPUTY DIRECTOR OF THE HOSPITAL FOR TROPICAL DISEASES



Asst. Prof. Weerapong Phumratanaprapin E-mail: tmwpr@mahidol.ac.th



Dr Watcharapong Piyaphanee E-mail: tewpe@mahidol.ac.th



Dr Supat Chamnachanan E-mail: tmscc@mahidol.ac.th



Asst. Prof. Jittima Dhitavat E-mail: jittima pu@yahoo.com



Asst. Prof. Kriengsak Limkittikul E-mail: tmklk@mahidol.ac.th





#### EDUCATION AND RESEARCH

The hospital for tropical diseases serves as a research facility of the Faculty of Tropical Medicine. Various researches have been done in 2009 including bioequivalence study, clinical trial of antimalarial medication, clinical trial of antiinfluenza medication. Moreover the hospital kept a large invaluable database

of tropical diseases patients which may be assessable for staffs and their students (Master degree or PhD students) to conduct their own retrospective research. However, all research conducted in the hospital has to be approved from the Ethical Committee of the Faculty of Tropical Medicine before starting the project.

Apart from research, the hospital for tropical diseases is a training base for medical professionals in all level from medical students, general practitioners, residents, fellows, as well as the experts. The hospital incorporate with expert from various departments provides the practical, hand-on experience in diagnosis and treatment of various tropical diseases.

#### QUALITY IMPROVEMENT

The hospital for tropical diseases is currently under the quality improvement program. Various committees and working group have been settled including Risk Management Team, Patient Care Team, etc. Our aim is to receive the Hospital Accreditation (HA) Step I certificate in the year 2010.



#### SPECIAL ACTIVITIES IN 2009

- 1. Children's day at Trop Med on 9th Jan 2009
- 2. "Getting away from parasitic diseases campaign"
- on 30<sup>th</sup> March 3<sup>rd</sup> April 2009.

Activities included:

- Panel discussion from specialists on various tropical diseases topics
- Free blood test for malaria, free stool exam for parasites
- Consultation and treatment from specialist
- Health exhibition on parasitic diseases

3. Routine to Innovation (R to I) Campaign: Staffs of Hospital for Tropical Diseases received funding support from the Faculty of Tropical Medicine to conduct R to I project in the year 2009

4. Health Promotion Week on 10<sup>th</sup>-11<sup>th</sup> October 2009

5. "Getting away from Tropical diseases campaign" on  $3^{rd}$ - $4^{th}$  December 2009

#### Activities included:

- Free blood test for malaria, free stool exam for parasites
- Consultation and treatment from specialist
- Health exhibition on tropical diseases

#### NOTABLE SUCCESSES IN 2010 INCLUDED

1. Moving towards quality. The Administrative Board of the hospital has a strong commitment to leading the Hospital towards quality. The lead team and other committees have been set up, and are now fully functioning. Most processes in the Hospital have been re-assessed, regulated, and improved. Many key performance indicators (KPI) have been setup and closely monitored. Thanks to the support from all staffs, we could pass the first step of the National Hospital Accreditation program.

2. Develop routine servicesvia research and innovation. Last year, several Hospital teams successfully completed Routine to Research/Innovation (R to R and R to I) projects. Some projects won national awards.

3. Improvements toour unique services;

a. Malaria diagnosis and treatment. Many malaria cases were referred to us last year, including severe andcomplicated cases. All weresuccessfully treated successfully. Hospital staffsalso conducted several clinical trials ofnew antimalarial medications. These are very important, since Thailand isincreasingly facing multi-drug resistance problems with malaria.

b. The Travel Medicine Clinicbecame an official center for yellow fever vaccination in 2010 andwas also able toissue international certificates of vaccination. In the same year, the number of travelers visiting the clinic increased by > 40% as compared to2009.

c. The TropMed Lab Centerwas establishedlast year. Itprovides aone-stop service for the handling of all external specimens and the distribution to the Hospital's special laboratory and Faculty research laboratories.

Annual Review 2010 - 2011 Faculty of Tropical Medicine, Mahidol University

# **OFFICE** OF THE DEAN



Mr. Somkid Nima BBA, LLB Secretary of the Faculty The Office of the Dean is a support unit facilitating tasks of the Faculty, such as the administrative. Administration and General Affairs, Unit, Human Resource Unit, Financial and Procurement Unit, Educational Affairs Unit, Information Technology Unit, International Relations Unit, Asset Management Unit, and research and Legal and Property Unit.

# HUMAN RESOURCE UNIT



Ms. Sukanya Klinseubchud BA Head

# ADMINISTRATION & GENERAL AFFAIRS UNIT



BA, MA Head

# PROCUREMENT UNIT



Mrs. Prapaipor Tiacharoen Cert, BBA Head

# FINANCIAL UNIT T



BSc, MSc Head

# INFORMATION TECHNOLOGY UNIT



EDUCATIONAL

**TECHNOLOGY UNIT** 

Ms. Siwaporn Phanphoowong MEd Head





BBA Head

> Dip in Voc, BS Tech Ed Head

LEGAL AND PROPERTY UNIT



LLM Head



# THE OFFICE OF STRATEGIC PLANNING AND POLICY



Head tmypt@mahidol.ac.th

# DEVELOPMENT PLANNING AND POLICY





......

**GENERAL** 



# QUALITY ASSURANCE



Quality Assurance Specialist tmnsh@mahidol.ac.th

# **BUDGETING AND FINANCE**



# **OFFICE ACTIVITIES**

# **Planning and Policy Development**

- > To write all administrative strategies of the Faculty.
- To monitor, report, and carry out institutional research. ۶
- ۶ To write the HR manpower plan.
- > To analyze the Faculty structure, in terms of establishment and collaboration efforts.
- To coordinate and negotiate business-related budgets 5 and host international academic meetings.
- To execute the project of Routine to Research (R to I) ۶

> To coordinate the seminar for organization development. Budgeting

- Governmental support budget
  - To write the annual expense proposal and 4-year investment plan.
  - To write the budget action plan.
  - To analyze income and expense by category.
- Faculty income budget
  - To form the estimated income budget of the Faculty.
  - To write the annual expense proposal (Faculty income) and mid-year supplementary budget.







# **RISK MANAGEMENT** AND INTERNAL AUDIT

# **General Administration**

- To send and receive office documents. 5
- > To record and file office documents.
- ۶ To provide all executive data and statistics of the Faculty.
- To report the Faculty utility costs according to cabinet's > resolution for resources.

# **Quality Assurance**

- To write the Self-Assessment Report (SAR) of the Faculty > in accordance with quality standards.
- To coordinate Faculty surveys. ۶
- To facilitate recoding/monitoring data of the Mahidol ۶ University Faculty Information System (FIS).

# **Risk Management and Internal Audit Activity**

- **Risk Management** 
  - To monitor the internal checks and balances system. b To estimate and report on risk levels of Faculty Þ administration.
  - To write risk control plans. •
- Internal Checks and Balances
  - To re-check the Faculty's budget and monetary affairs. Ð
  - To consult with a professional internal checker.



# THE OFFICE OF INTERNATIONAL COOPERATION (OIC)

# INTERNATIONAL COOPERATION AND PUBLIC RELATIONS MOU/AGREEMENT



Ms. Jittapim Na Bangchang Foreign Relations Officer tmjnb@mahidol.ac.th



Ns. Rattanawadee Nanlar Administrative Affairs Office tmrnl@mahidol.ac.th

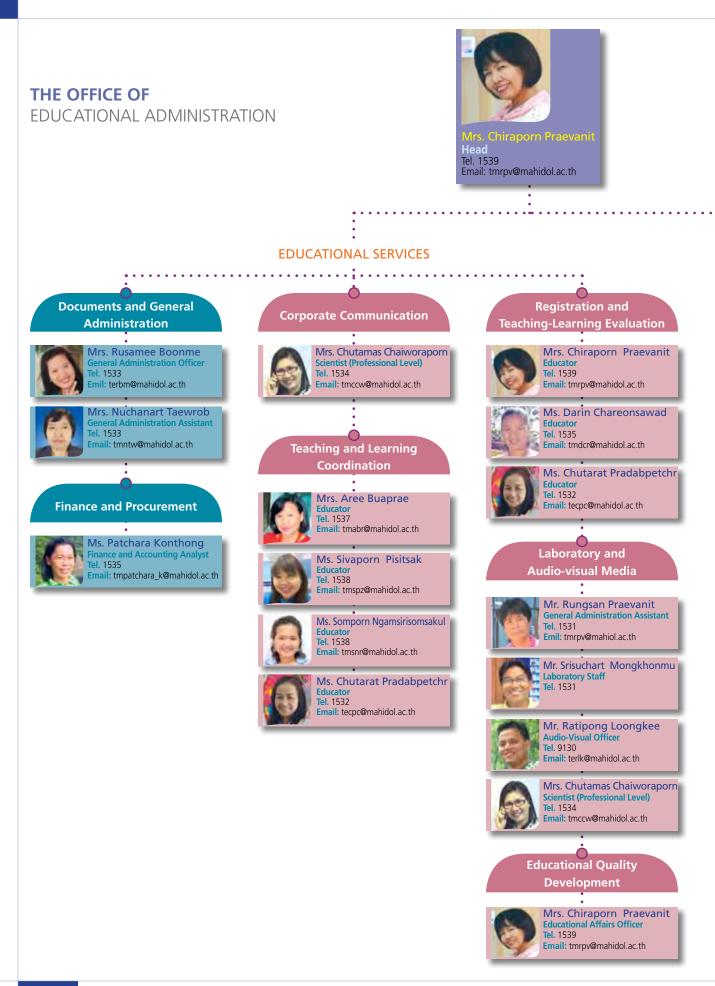
# LOCAL INTERNATIONAL CENTERS AND SHORT TRAINING PROGRAMS



Foreign Relations Officer tmpmp@mahidol.ac.th

The Office of International Cooperation (OIC), Faculty of Tropical Medicine is mandated to promote, facilitate and strengthen international collaborative activity relating to medical science. International collaboration is a major contributing academic strength of the Faculty of Tropical Medicine. In 2009-2010, the OIC helped facilitate the honorary appointments of 2 Visiting Professors from Europe, Dr. Adrianus Dondorp (England) and Dr. Jean Pierre Dujardin (Belgium). The average yearly number of new international visitors is 70-100 from 20-25 countries worldwide.

The OIC started regular short and special requested extended training courses in 2003. Since then, the numbers of both the training courses and the participants are increasing. In 2009, there were 14 training course with 202 participants. In 2010, there were 19 training courses with 283 participants. Other inter-organizational collaboration facilitated by the OIC include consulting services, personnel exchanges, specimen and information exchanges, joint training courses, workshops, seminars and conferences.



The Office of Education Administration (OEA) works to coordinate all of the different educational curriculums that the Faculty of Tropical Medicine offers. Our duties are broken down into 8 general categories:

**Documents and General Administration:** We manage all documents and registration forms, as well as perform general tasks such as producing handouts and photocopies. We also facilitate communication, both within our office and between other offices. Finally, we organize the opening and closing ceremonies for all courses.

**Finance and Procurement:** In terms of financial matters, the OEA is responsible for making each yearly financial plan as well as corresponding with our various fundraisers. We handle all accounting, reporting invoices and receipts and inventory maintainence.



**Corporate Communication:** We are in charge of making the School Public Relations plan, in order to handle all communication between the School and the general public. We handle all e-mail correspondence regarding international program information and advice to prospective students and update the school website's information. We also manage application submissions and verify enrollment of foreign applicants, as well as coordinate such events as our open house and road shows.

**Teaching and Learning Coordination**: The OEA not only manages student course registration, we also coordinate all teaching and classroom timetables. We handle payment dispersal for all internal and external lecturers. The OEA organizes special events, such as guest lecturer and student academic forums. We also produce the Student Manual.

**Registration and Teaching-Learning Evaluation:** We manage all student records as well as maintain a comprehensive school student database, which includes both current students and alumni. As we strive to provide a highquality education at TropMed, some of our most important tasks is facilitating the teacher evaluations and course evaluation, organizing and assisting with the development of student research projects, and manage on ongoing projects. Laboratory and Audio-visual Media: The OEA coordinates all management and maintenance for laboratory facilities and equipment used as tools for teaching and training

Educational Quality Development: We organize all Education Assessment Reports and exam paper collection. We also identify and reporting any educational risk factors that may prohibit our students from accessing a proper education. We also organizing laboratory field trips and ensure they are in accordance with the TropMed educational standards.

Student's activity and Student's service: To assist our students and add enjoyment to their experience studying in Bangkok, we develop and implement an action plan for various student activities. We assist with the coordination of all student events, such as community service projects, "Freshy" Day, the Welcome field trip, MU International Day, and various sporting events. The OEA organizes cultural ceremonies, like Wai Khru Day, and other ceremonies, like convocation. We document all of these events by taking photos. We also make the Tropmed International Student Guide, and assist international students by escorting them to health service centers, providing visa assistance, and providing information about funding sources to students.

# THE OFFICE OF RESEARCH SERVICES

Telephone / Fax: +66 (0) 2306 9125-6, +66 (0) 2354 9100 ext 1524, 1525, 1332, 1349

The Office of Research Services (ORS) coordinates and provides vital support services for the research activities of the Faculty of Tropical Medicine (TropMed), to sustain excellence in TropMed research and to assure its position as a world leader in tropical medicine research. The ORS is the central coordinator for TropMed's sponsored research activities. We provide a full range of administrative and support services to TropMed researchers, to release them to conduct research rather than research administration. The ORS provides a range of other research-facilitation services, including the Faculty's Publications Database, Conference and Event Planning, Ethics Committee Secretariat, and TropMed Publications, in both Thai and English.

Domestic Sponsored

**Research Grants** 



Mrs. Pornpimon Adams MSc, BSc Head tmpww@mahidol.ac.th

# **RESEARCH ADMINISTRATION**

International Sponsored Research Grants



Mr. Paul Adams BA, Grad Dip Lib, MMgt Research Administrator/ Coordinator, Special Projects frpra@mahidol.ac.th



Mr. Timothy Jackson BS, B Phil Assistant Research Administrato tmtimothy@mahidol.ac.th

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tmsrk@mahidol.ac.th

Ms. Siwaporn Samun BA General Admin. Officer tmssm@mahidol.ac.th

# ETHICS COMMITTEE SECRETARIAT



Ms. Warissara Chaiyaphai MA, BA General Admin. Officer tmwcy@mahidol.ac.th



Ms. Sukanya Prakobtham BSc General Admin. Officer Tmsukanya\_p@mahidol.ac.th



Ms. Chanthima Limphattharacharoen BA General Admin. Officer tmclp@mahidol.ac.th

# RESEARCH ADMINISTRATION

The Research Administration Unit manages the full range of sponsored research services from pre-award through post-award, for both international and domestic grants. It links and liaises between TropMed researchers and funding agencies, such as the US NIH/ NIAID, USAID, Gates Foundation, Fogarty, Henry Jackson, European Union, Wellcome Trust, SACIDS, and others. The Unit notifies TropMed researchers of new funding opportunities, and during the pre-award phase, assists proactively with the development and writing of grant applications, and submits them in written form or electronically. We manage all post-award administrative services as well, financial and progress reporting, maintenance of records for potential audit, ensuring adherence to the international standards of funding agencies and regulators. Finally, we provide guidance for new research staff or researchers who are unsure how to obtain international funding. The Unit facilitates training workshops to introduce new clinical methodologies and laboratory procedures in tropical medicine to TropMed researchers, and external clinicians and experts.

On behalf of the Faculty, the Unit manages internal research grant funds to assist and develop TropMed researchers develop higher levels of research experience and expertise, such as the newly established Dean's Research Fund and the Faculty of Tropical Medicine Research Fund.

As an additional key support to the research publication and proliferation process, the Research Administration Unit provides English-language editorial assistance, for research manuscripts and other publications, such as book chapters, all grant applications, and the thesis abstracts of postgraduate students.

#### PUBLICATION DATABASE AND IT MANAGEMENT

The ORS maintains the TropMed publication database, comprising more than 40 years of TropMed publications. This unit provides all computer-programming and software installation services for the ORS. The Unit manages the TropMed research website, and publishes research-related updates and current news and events. The unit also sets up frequent video-conference meetings between TropMed researchers and our international collaborators.

#### CONFERENCE AND EVENT PLANNING

The ORS manages the logistics and administration of research-

related conferences hosted and co-hosted by TropMed. The Office plans and hosts the Joint International Tropical Medicine Meeting (JITMM) each year, and in 2011, is helping to host the AIDS Vaccine Conference. The Office organizes the Food- and Water-Borne Zoonoses (FBPZ) conference every 3 years. The ORS facilitates all communication between TropMed and conference participants, including invitations, registration, accommodation bookings, airport pick-up, surveys and comments. The ORS establishes the conference venue, plans the conference schedule, books keynote speakers, and arranges social functions. The ORS also acts as a conference/event manager for other institutions wanting to conduct conferences in Thailand.

# PUBLICATION DATABASE AND IT MANAGEMENT



MBA, BA Computer Programmer tepvk@mahidol.ac.th



MIT, BA Computer Programmer tmwijak@mahidol.ac.th

# PUBLICATIONS AND GRAPHIC DESIGN



BA Graphic Designer tmrrr@mahidol.ac.th



Mr. Paiboon Vasanakomu Graphic Designer

# CONFERENCE AND EVENT PLANNING



BSc Event Coordinator tmaag@mahidol.ac.th

The ORS plans and coordinates researcher training workshops and other special events. Since tropical medicine knowledge and practice are changing and advancing so rapidly, it is crucial that researchers remain up-to-date, and maintain open and fluid networks between experts and potential collaborators, regionally and internationally. This is aided by "Lunch Talks" and other special talks, where TropMed staff and external researchers, local and international, are invited to discuss and update knowledge of important topics in tropical medicine.

#### ETHICS COMMITTEE SECRETARIAT

The ORS houses the TropMed Ethics Committee (EC) Secretariat. The EC, which has been internationally accredited by SIDCER/FERCAP, is responsible for reviewing all TropMed research projects, to ensure their adherence to internationally accepted ethical standards. The EC meets regularly to discuss and review research proposals for clinical trials and other scientific research that involves human or animal subjects. After initial consideration of a proposal/protocol, the EC may suggest revisions that ensure projects are ethically sound. All TropMed research projects dealing with human and animal subjects, which have ethical implications, must be approved by the Ethics Committee, and are subject to ongoing monitoring and review for compliance with international ethical standards.

#### PUBLICATIONS AND GRAPHIC DESIGN

Graphic design specialists within the ORS handle all communication materials produced by the ORS and TropMed. This includes all conference advertisements and signage, all special events notifications, and other marketing materials. The Unit oversees the layout of the TropMed Research website and the ORS publications, such as the Annual Review of the Faculty of tropical Medicine, Mahidol University.

# (Fiscal Year 2009-2010)

No.	Research Title	Grant	Principal investigator
Depart	ment of Clinical Tropical Medicine		
1 **	Safety, immunogenicity, and efficacy of quadrivalent HPV (Types 6, 11, 16, 18) L1 Virus-Like Particle (VLP) vaccine in Mid-adult women. The FUTURE III)	Merck & Co., Inc	Prof. Punnee Pitisuttithum
2 ***	A Phase III Trial of Aventis Pasteur Live Recombinant ALVAC-HIV (vCP1521) Priming with VaxGen gp120 B/E (AIDSVAX B/E) Boosting in HIV-uninfected Thai Adults (Clinic)	The Henry M. Jackson Foundation for The Advancement of Military Medicine, Inc. and The Government of Thailand Ministry of Public Health	Prof. Punnee Pitisuttithum
3 ***	A worldwide, phase I, dose-escalating study of the safety, tolerability, and immunogenicity of a three-dose regimen of MRKAd5HIV-1 gag vaccine in healthy adults	Merck & Co., Inc	Prof. Punnee Pitisuttithum
4 ***	Measurement of anogenital wart burden, and cost of illnesses in Bangkok	Merck Research Foundation	Prof. Punnee Pitisuttithum
5 **	A phase 2b/3, randomised, double blind, dose confirming study of the safety, efficacy and tolerability of apricitabine versus lamivudine in treatment-experienced HIV-1 infected patients with the M184V mutation in reverse transcriptase	Avexa Limited, Australia	Prof. Punnee Pitisuttithum
6 **	Measuring Herpes Zoster and Post-Herpetic Neuralgia Associated Burden of Illness and Health Care Utilization and Costs in Thailand	MSD ( Thailand)	Prof. Punnee Pitisuttithum
7 **	A phase III, randomized, non-inferiority trial, to assess the efficacy and safety of dihydroartemisinin + piperaquine (DHA+PPQ, Artekin) in comparison with Artesunate+Mefloquine (AS+MQ) in patients affected by acute, uncomplicated <i>Plasmodium falciparum</i> malaria	MMV (Medicine for Malaria Venture) and Sigma Tao	Prof. Sasithon Phukrittayakamee
8 **	Phase I, open-label study to evaluate potential pharmacokinetic interactions between orally-administered Oseltamivir and Intravenous Zanamivir in healthy Thai adult subjects	Glaxo SmithKline	Prof. Sasithon Phukrittayakamee
9 **	A Randomized, Open-Label, Cross-Over, Pilot Drug-Drug Interaction Study of the Safety and Pharmacokinetics of Oral Doses of Amantadine Hydrochloride, Oseltamivir Phosphate, and Ribavirin Alone and in Combination in Healthy Male and Female Volunteers under Fasted Conditions	Adamas Pharmaceuticals, Inc	Prof. Sasithon Phukrittayakamee
10 *	The Research Project for Technology Transfer of Chronic Lymphede Treatment Targeting at Medical, Public Health, and Community Personnel in Thailand Southern Border Regions	Government Budget	Dr. Wichai Ekataksin
11 **	Study to evaluate a treatment guideline of twisting tourniquet technique with chronic lymphedema		Dr. Wichai Ekataksin
12 ***	Comparison of the safety and efficacy of a Unique Intravenous Iron Preparation (VIT-45) versus oral iron in the treatment of Anemia in non-dialysis dependent chronic kidney diseases	Luitpold Pharmaceutical, Inc, USA	Assoc. Prof. Yupaporn Wattanagoon
13 ***	Bioequivalence study of genetic Glimepiride tablets to innovator Amary® (Glimepiride 2 mg) in healthy Thai volunteers	International Bio Service Co., Ltd	Assoc. Prof. Yupaporn Wattanagoon
14 ***	Pharmacologic study of Oseltamivir in healthy volunteers	National Institutes of Health, USA	Assoc. Prof. Yupaporn Wattanagoon
15 **	Cell derived microparticles in malaria infection	Wellcome Trust of Great Britain	Assist. Prof. Kesinee Chotivanich
16 ***	Effect of primaquine and its metabolite on the infectivity of <i>P. falciparum</i> gametocyte	Wellcome Trust of Great Britain	Assist. Prof. Kesinee Chotivanich
17 **	Effect of serum lipid concentration on the efficacy of lumefantrine against falciparum malaria: <i>in vitro</i>	The Thailand Research Fund	Assist. Prof. Kesinee Chotivanich
18 **	Gnathostomiasis and correlation of skin test with Gnathostoma spinigerum fractionated specific antigen and IgE	Faculty of Tropical Medicine, Mahidol University	Assist. Prof. Wirach Maek-a- nantawat
19 ***	Bioequivalence study of 4 mg Perindopril tablets preparations in healthy Thai male volunteers	International Bio Service Co., Ltd	Assist. Prof. Weerapong Phumratanaprapin
20 ***	Evaluation of genetic susceptibility to meliodosis	The US National Institute of Health	Dr. Wirongrong Chierakul
21 ***	Abnormalities of coagulation and the immune response in diabetic patients with melioidosis	MORU, the Faculty of Tropical Medicine and Amsterdum Medical Centre, Netherlands	Dr. Wirongrong Chierakul
22 ***	In Vivo bioequivalence study of 160 mg Fenofibrate film-coated tablet preparation in healthy Thai male volunteers	International Bio Service Co., Ltd	Asst. Prof. Weerapong Phumratanaprapin
23 ***	Rabies exposure risk among foreign backpackers from non-ASEAN countries traveling in Southeast Asia	N/A	Dr. Watcharapong Piyaphanee

No.	Research Title	Grant	Principal investigator
Departr	ment of Clinical Tropical Medicine (Continued)		
24 ***	A phaselV,multi-center, randomized, double blind, placebo controlled study to evaluate the safety of daily inhaled Zanamivir 10 mg versus placebo and daily oral Oseltamivir 75 mg versus placebo for influenza prophylaxis in healthy volunteers for 16 weeks	SEA Influenza Clinical Research Network	Prof. Sasithon Phukrittayakamee
25 **	Bioequivalence Study of 70 mg Alendronate Sodium Tablet Preparations in Healthy Thai Volunteers	International Bio Service Co., Ltd	Assoc. Prof. Wattana Laewwattana
26 ***	VNTR-based PCR (VNTR Typing for <i>Plasmodium falciparum</i> and <i>Plasmodium vivax</i>	Biotech	Assist. Prof. Mallika Imwong
27 ***	Molecular characterization of drug resistance in the Human malarias	Intermediate level fellowship, Welcome Trust of Great Britain	Assist. Prof. Mallika Imwong
28 ***	Pathology of mouse vital organs after injection with Artemisinin derivatives	Mahidol-Oxford Tropical Medicine Research Unit	Assist. Prof. Apichart Nontprasert
29 **	Early access of MK-0518 in combination with an optimized background antiretroviral therapy (OBT) in highly treatment experienced HIV-1 infected patients with limited to no treatment options	Merck and Co., Inc	Assist. Prof. Wirach Maek-a- nantawat
30 **	Travel information among HIV infected individuals		Assist. Prof. Wirach Maek-a- nantawat
31 *	Rapid diagnosis of leptospirosis by loop-mediated isothermal amplification	The Thailand Research Fund	Dr.Piengchan Sonthayanon
32 ***	Safety and efficacy study of <i>Impomea pes-caprae ointment</i> produced by Faculty of Tropical Medicine	Faculty of Tropical Medicine, Mahidol University	Dr. Watcharapong Piyaphanee
33 **	Seroprevalence of latent cytomegalovirus infection in elderly Thais	Faculty of Tropical Medicine, Mahidol University	Ms. Viravarn Luvira
34 ***	Development of PCR-based detection for <i>Leptospira</i> spp. and <i>Orientia tsutsugamushi</i> in patients with coinfection of leptospirosis and scrub typhus	Faculty of Tropical Medicine, Mahidol University	Dr. Piengchan Sonthayanon
35 ***	A Randomized, international, Double-Blinded (With In-House Blinding), Controlled With GARDASILTM,Dose-Ranging, Tolerability, Immunogenicity, and Efficacy Study of a Multivalent Human Papillomavirus (HPV) L1 Virus-Like Particle (VLP) Vaccine Administered to 16 to 26 Year Old Women	MSD ( Thailand)	Prof. Punnee Pitisuttithum
36 *	Travelers' diarrhea among foreign travelers in Southeast Asia based on surveillance data at Suvarnabhumi Airport	Faculty of Tropical Medicine, Mahidol University	Dr. Chatporn Kittitrakul
37 *	Detection of artemisinin resistance P. falciparum: in vitro	Mahidol-Oxford Tropical Medicine Research Unit	Assoc. Prof. Kesinee Chotivanich
38 *	A Phase III Clinical Trial to Study the Immunogenicity, Tolerability, and Manufacturing Consistency of V503 (A multivalent Human Papillomavirus [HPV] L1 Virus-Like Particle [VLP] Vaccine) in Preadolscents and Adolescents (9 to 15 year olds) with a Comparison to Young Woman (6 to 26 year olds)	Merck & Co., Inc	Prof. Punnee Pitisuttithum
39 *	Safety, Immunogenicity and Efficacy Studies of WRSS1, a Live Attenuated Shigella sonnei Vaccine Candidate, in Healthy Thai Adults	Merck & Co., Inc	Prof. Punnee Pitisuttithum
40 *	New and Simple method in diagnosis of malaria		Prof. Polrat Wilairatana
Departr	ment of Helminthology		
1 **	Research and development of an application to purify Bithynia snail antigen in serodiagnosis of opisthorchiasis	Government Budget	Assoc. Prof. Jitra Waikagul
2 ***	Study on Paragonimus population: morphology, molecular biology, enzymology and epidemiology aspects	Ministry of Foreign Affairs	Assoc. Prof. Jitra Waikagul
3 ***	Genetic variation and population structure studies of fish-borne trematodes for increasing control impact of opisthorchiasis and chlolangiocarcinoma	The Thailand Research Fund	Assoc. Prof. Jitra Waikagul
4 **	Epidemiological study of <i>Helicobacter pyroli</i> and parasitic injection in healthy people	Osaka University, Japan	Assist. Prof. Chalit Komalamisra
5 **	Intestinal parasites isolated from house-flies in the tourist attraction areas in Thailand	Faculty of Tropical Medicine, Mahidol University	Assoc. Prof. Wanna Maipanich
6 ***	The study on life cycle and antiginicity of Paragonimus pseudoheterotremus waikagul, 2007	Faculty of Tropical Medicine, Mahidol University	Mrs. Tippayarat Yoonuan
7 *	Angiostrongylus cantonensis in freshwater snails collected from 18 different localities of Thailand: prevalence and parasitic burden,	Government Budget	Assoc. Prof. Chalit Komalamisra

No.	Research Title	Grant	Principal investigator
Depart	ment of Helminthology (Continued)		
8 ***	Study on the recombinant proteins expressed from Mucin-1 gene of Toxocara canis in Prokaryotic and Eukaryotic cells for diagnosis of human toxocariasis	Faculty of Tropical Medicine, Mahidol University	Dr. Dorn Watthanakulpanich
9 ***	Genetic variation and DNA sequences of Taenia asiatica	Faculty of Tropical Medicine, Mahidol University	Assoc. Prof. Malinee Thairungroj
10 *	Functional studies of protease from Angiostrongylus cantonensis in activation of metric metalloprotease	Mahidol University	Dr. Poom Adisakwattana
11 *	Analysis of an electro-eluted antigen (< 30 kDa) of <i>Strongyloides</i> <i>stercoralis</i> infective larvae using IgG1-4 –ELISA for diagnosis of strongyloidiasis	Faculty of Tropical Medicine, Mahidol University	Mr. Wallop Pakdee
12 *	Health status of immigrant children and environmental survey of the children day care centre in Samutsakorn province	Faculty of Tropical Medicine, Mahidol University	Mr. Surapol Sa-nguankiat
Depart	ment of Entomology		
1 ***	Dynamic and temporal structure of the troglobitic fauna of medically important insects and arthropods in caves of Kanchanaburi Province	Faculty of Tropical Medicine, Mahidol University	Assoc. Prof. Chamnarn Apiwathnasorn
2 *	Technology transfer of research and development for essential oils of Lisea cubeba, Qinghao ( <i>Artemisia annua</i> ) and kaffir lime ( <i>Citrus</i> <i>hystrix</i> ) as mosquito repellents for control of mosquito-borne diseases to local communities of northern, southern and northeastern Thailand	Government Budget	Assoc. Prof. Chamnarn Apiwathnasorn
3 ***	Population dynamic of the dengue vectors and dengue virus infection in <i>Aedes aegypti</i> and <i>Aedes albopictus</i> , in urban and suburban areas	Government Budget	Assoc. Prof. Narumon Komalamisra
4 **	Dengue virus detection in dark and pale forms of <i>Aedes aegypti</i> collected as immature stages from breeding site	Government Budget	Assoc. Prof. Supatra Thongrungkiat
5 ***	Molecular identification of <i>Anopheles sundaicus</i> In natural breeding sources, the coastal area of Andaman and the Gulf of Thailand	Faculty of Tropical Medicine, Mahidol University	Dr. Jiraporn Ruangsittichai
6 **	Comparative study knockdown resistance gene (kdr) in vector of Dengue haemorrhagic fever to permethin	Faculty of Tropical Medicine, Mahidol University	Mrs. Raweewan Srisawat
7 ***	Feeding behavior, ecological studies, and molecular identification of Anopheles dirus complex in man-habitat	Faculty of Tropical Medicine, Mahidol University	Mr. Sungsit Sungwornyothin
8 *	Classification of medical arthropod vectors in Thailand by DNA barcode	Government Budget	Dr. Jiraporn Ruangsittichai
9*	Study of genetic variation for identification of mosquitoes in Thailand by malecular techniques	The Thailand Research Fund	Dr. Jiraporn Ruangsittichai
10 ***	DNA barcoding of medically entomological ectoparasites	Government Budget	Mr. Sungsit Sungwornyothin
11 *	Tropic bebavior and ecological characteristics of <i>Anopheles dirus</i> complex in man-made habitat	The Thailand Research Fund	Mr. Sungsit Sungwornyothin
12 ***	Study on larvicidal activity of <i>Azadirachta indica</i> Extracts and formulate as a product for the control <i>Acedes aegypti</i> mosquito larvae	Faculty of Tropical Medicine, Mahidol University	Mr. Samrerng Prummongkol
13 *	Comparative linoleic, calcium and protein in sesame oil and sesame meal by using hydraulic press and cultural press machine	Faculty of Tropical Medicine, Mahidol University	Mrs. Keawmala Palakul
Depart	ment of Microbiology and Immunology		
1 ***	Role of NK cells, NKT cells and T cell subpopulations through granule exocytosis in response to <i>M. tuberculosis</i> infection	The Thailand Research Fund	Prof. Srisin Khusmith
2 ***	Clinical and immunological study on difficulty treatment TB in Chiang Rai, Thailand	Japan Health Science Fundation	Prof. Srisin Khusmith
3 **	Genetic polymorphisms in HIV infected patients receiving antiretrovaral therapy	The Thailand Research Fund	Prof. Srisin Khusmith
4 **	Genetic polymorphisms in HIV-1 infected patients receiving antiretrovaral therapy	Mahidol University	Prof. Srisin Khusmith
5 *	Genotypic Diversity and the ability to invade host cell among environmental Legionella isolates in Thailand	Government Budget	Assist. Prof. Tareerat Kalambaheti
6 *	Role and significance of arginine deiminase (ADS) in adaptation of Burknolderia pseudomallei	The Thailand Research Fund	Dr. Narisara Chantratita
7 *	Associations between genetic polymorphisms, innate immune responses and outcomes from sepsis in Thai patients with melioisosis and <i>S. aureus</i> infection	Welcome Trust of Great Britain	Dr. Narisara Chantratita

No.	Research Title	Grant	Principal investigator
Depart	ment of Microbiology and Immunology (Continued)		
8 **	Culturing of Brucella sp. from blood milk and Secretion from uterus in suspected Brucellosis Animal cases and determine the biochemical properties of isolates	Faculty of Tropical Medicine, Mahidol University	Mrs. Phanita Chanket
9 ***	The effects of Thai medicinal plants for the protection of Influenza virus	Faculty of Tropical Medicine, Mahidol University	Dr. Pornsawan Leangwutiwong
10 ***	Determination of Dengue neutralizing antibodies using micro- neutralization test	Faculty of Tropical Medicine, Mahidol University	Ms. Siriporn Chattanadee
11 ***	Detection of influenza A 2009 H1N1 virus by real - time RT – PCR	Faculty of Tropical Medicine, Mahidol University	Ms. Akanitt Jittmittraphap
12 ***	Gemomic approaches to metabolite exploitation from Xenorhabdus, Photorhabdus	Johann Wolfgang Goetite Universtitaet Frankfurt am Main	Dr. Narisara Chantratita
13 *	Characterization of monoclonal antibodies specific to Aeromonas sobria	Faculty of Tropical Medicine, Mahidol University	Mrs. Suporn Paksanont
Departi	ment of Protozoology		
1 ***	Toxoplasma gondii genotyping in domestic and wild felids in Thailand	Commission on Higher Education	Assoc. Prof. Yaowalark Sukthana
2 **	Genetic Characterization of <i>Toxoplasma gondii</i> in Thai Free-range Chicken	The Thailand Research Fund	Assoc. Prof. Yaowalark Sukthana
3 ***	Molecular Epidemiological Study on Giardia Contamination in Thai Vegetables	Tanad Molee - Commund Foundation	Assoc. Prof. Yaowalark Sukthana
4 **	Study of Cryptosporidim Contamination in waste water by FISH	Tanad Molee - Commund Foundation	Assoc. Prof. Yaowalark Sukthana
5 *	Molecular characterization of DNA polymerase of <i>Plasmodium</i> falciparum and Its role in DNA peplication and DNA repair	Biotech	Assoc. Prof. Porntip Petmitr
6 ***	Molecular characterization of <i>Plasmodium falciparum</i> polynucleotide kinase	The Thailand Research Fund	Assoc. Prof. Porntip Petmitr
7 ***	Molecular characterization of <i>Plasmodium falciparum</i> polynucleotide kinase and its role on DNA repair of malaria parasites	Government Budget	Assoc. Prof. Porntip Petmitr
8 ***	PCR assays for detection of <i>Toxoplasma gondii</i> in Thai commercial meat products	Mahidol University	Ms. Rachatawan Chiabchalard
9 ***	Detection of <i>Trichomonas vaginalis</i> infection in Thai Women by PCR and culture methods	Faculty of Tropical Medicine, Mahidol University	Ms. Kanthinich Thima
10 ***	Genotyping of <i>Giardia duodenalis</i> in Thai children at welfares located in/around Bangkok	Faculty of Tropical Medicine, Mahidol University	Ms. Supaluk Popruk
11 *	Identifying the Sources of Environmental Contamination by Cryptosporidium	The Thailand Research Fund	Assoc. Prof. Yaowalark Sukthana
12 *	Diagnostis of Central Nervous System Infection in Immunocompetent Patients	The National Research Concil of Thailand	Assoc. Prof. Yaowalark Sukthana
13 *	Diagnostis of Central Nervous System Infection in Immunocompromised Patients with Single Clinical Specimen	The National Research Concil of Thailand	Assoc. Prof. Yaowalark Sukthana
14 *	Development of intestinal protozoan diagnosis by Multiplex Real Time PCR	The National Research Concil of Thailand	Dr. Rachatwan Chiabchalard
15 *	Quantitative realtime PCR for detecting Toxoplasma gondii	Faculty of Tropical Medicine, Mahidol University	Ms. Ruenruetai Udonsom
Depart	ment of Social and Environmental Medicine		
1 ***	Modifying mosquito population age structure to eliminate dengue transmission	Gates Foundation	Assoc. Prof. Piyarat Butraporn
2 ***	Modifying mosquitoes age structure to eliminate dengue haemorrhagic fever: community participation in dengue haemorrhagic fever		Assoc. Prof. Piyarat Butraporn
3 *	Technology transfer on the combination of effective microorganisms (EM) and Chitosan for control the environmental and diseases vectors problems using Participatory action research	Government Budget	Assist. Prof. Pongrama Ramasoota
4 **	Effect of Global fund on the treatment system for HIV/AIDS	Ministry of Public Health	Assoc. Prof. Kamolnetr Okanurak
5 ***	Assessment of urinary cotinine as exposure biomonitoring to active and secondhand smoking and biomarkers of cardiovascular disease risk	The Thailand Research Fund and Commission on Higher Education	Dr. Prapin Tharnpoophasiam

No.	Research Title	Grant	Principal investigator
Depart	ment of Social and Environmental Medicine (Continu	ued)	
6 **	Species identification of freshwater snails potentiallt transmitted human parasitic diseases using DNA barcoding technique	Mahidol University	Mrs. Suwalee Worakhunpiset
7 ***	A surveillance of snail intermediate host of Schistosomiasis: Schistosoma mekongi (Neotricula aperta β-race) using the geographic information system in the area of Mun river, Ubon- Ratchatani Province	Faculty of Tropical Medicine, Mahidol University	Mr. Peerapol Chusongsaeng
8 ***	Development of Microorganism Killing Activity for Electronic Air Filter	The Thailand Research Fund	Assist. Prof. Pongrama Ramasoota
9 *	Local Administration Participation in Health Development Nonthaburi province	Department of Social and Environmental Medicine	Mr. Wiwat Wanarungsikul
10 *	Variable infection rate of Bithynia (Digoniostoma) <i>siamensis siamensis</i> , 1st intermediate host of liver fluke, <i>Opisthorchrist viverrini</i> at endemic areas in Chacheongsao Province, Thailand	Faculty of Tropical Medicine, Mahidol University	Mrs. Yupa Chusongsang
11 *	Development of monoclonal antibody specific to 3 ABC protein of foot and mouth disease virus using phage display technology	The Thailand Research Fund	Assist. Prof. Pongrama Ramasoota
Depart	ment of Tropical Hygiene		
1 **	A phase III trial of Aventis Pasteur live recombinant ALVAC-HIV (vCP 1521) priming with VaxGen gp120 B/E (AIDSVAXTM B/E) Boosting in HIV-uninfected Thai-Adults (Data Management)	The Henry M. Jackson Foundation for Military Medicine, Inc.	Assist. Prof. Jaranit Kaewkungwal
2 **	A phase III trial of Aventis Pasteur live recombinant Thai adults	Walter Reed Army Institute of Research	Assist. Prof. Jaranit Kaewkungwa
3 ***	Development of Health Information System for Managing Healthcare services in Remote Areas: A module for Monitoring Artemisinin Resistant Malaria Parasites		Assist. Prof. Jaranit Kaewkungwal
4 ***	A phase II, randomized, open label, multicentre study to assess the antimalarial efficacy and safety of arterolane (RBx11160) maleate and piperaquine phosphate coadministration and Coartem in patients with acute uncomplicated <i>Plasmodium falciparum</i> malaria	Ranbaxy Laboratories Ltd., India	Assoc. Prof. Srivicha Krudsood
5 ***	Evaluation of fosmidomycin, when administered concurrently to adult subjects with acute uncomplicated Plasmodium malaria	Jomaa Pharma GmbH, Hamburg, Germany	Assoc. Prof. Srivicha Krudsood
6 *	Th1 and Th2 cytokine expression in common mosquito borne infected samples in Thailand	The Thailand Research Fund	Dr. Natthanej Luplerdlop
7 ***	Proteomics characterization of Aedes aegypti	Bourse Scholarship, IRD, France	Dr. Natthanej Luplerdlop
8 ***	Immunomodulation properties of Aedes aegypti infected mosquitoes with Dengue virus type 2 (DV2-16681) salivaty protein extraction in THP-1 cells	Faculty of Tropical Medicine, Mahidol University	Dr. Natthanej Luplerdlop
9 *	Molecular techniques for identification of protective epitope and pathogenic peptides of LipL32 protein of <i>Leptospira</i> spp.	The Thailand Research Fund	Dr. Santi Maneewatchararangsri
10 *	Dynamics of microscopic and submicroscopic <i>P. falciparum</i> gametocytemia after early treatment of artesunate-mefloquine	The Thailand Research Fund	Dr. Saranath Lawpoolsri
11 ***	Malaria Surveillance in endemic area by participation of Tropical Disease Surveillance	Faculty of Tropical Medicine, Mahidol University	Mr. Supalarp Puangsa-art
12 ***	Spatial Epidemiology of Bacterial Contaminations of Household Drinking Water in Rural Communities of Suan Phung District, Ratchaburi Province	Department of Tropical Hygiene	Mr. Surapon Yimsamran
13 *	Application of Geoinformatics Technology in the Assessment of Malaria Risk Area in Ratchaburi Province	Faculty of Tropical Medicine, Mahidol University	Ms. Chotipa Kulrat
14 *	Prevalence and impact of intestinal parasitic infections in pregnant women in 3 health centers along the Thai-Myanmar border, Suan Phung district, Ratchaburi province : Field base study	Faculty of Tropical Medicine, Mahidol University	Mr. Nipon Thanyavanich
15 *	Role of phosphoinositide 3-kinase and matrix metalloproteinases induce chronic arthritis in Chikungunya pathogenesis	Faculty of Tropical Medicine, Mahidol University	Ms. Suntaree Sangmukdanun
16 *	Production of human VL complementary single-variable domain that interfere and/or neutralize IL-17 biological functions	Faculty of Tropical Medicine, Mahidol University	Dr. Santi Maneewatchararangsri
17 *	Mathermatical modeling of optimal combinations of dengue diagnosis strategies	The Thailand Research Fund, Commission on Higher Education and Mahidol University	Dr. Wirichada Panngam

No.	Research Title	Grant	Principal investigator
Depart	ment of Tropical Nutrition and Food Sciences		
1 *	Determination of genes expression profile associated to the prognosis of breast cancer and cholangiocarcinoma using Affymetrix Gene Chip and development of diagnostic kits for prognostic detection of these cancers in Thai patients by real-time PCR technique	Government Budget	Assoc. Prof Songsak Petmitr
2 ***	Development of health behaviors and nutritional status of the Tsunami victims in Phang-nga Province	Brescia University, Italy	Assist. Prof. Karunee Kwanbunjan
3 ***	MTHFR polymophism of folate metabolic genes and susceptibility to colorectal cancer in Thai	Government Budget	Assist. Prof. Karunee Kwanbunjan
4 **	Association between genome - wide methylation level and cellular senescence and aging	The Thailand Research Fund	Dr. Pornrutsami Jintaridth
5 ***	Studies on toxicity of heme and oxidative stress after Exposure of antimalarial drugs on mouse macrophage Cell line (RAW264.7)	Faculty of Tropical Medicine, Mahidol University	Ms. Kriyaporn Songmuaeng
Depart	ment of Tropical Pathology		
1 **	A murine model of cerebral malaria, histopathology, immunohistochemistry and electron microscopy	Thailand Center of Excellent for life Science (TCELS)	Assoc. Prof. Emsri Pongponratn
2 ***	Proteome of cancerous squamous cells in oral cavity and salivary gland tumor	Faculty of Tropical Medicine, Mahidol University	Assist. Prof. Urai Chaisri
3 **	Blood stage P. falciparum antigens induce T cell	SEAMEO NETWORK	Assoc. Prof. Yaowapa Maneerat
4 *	Vascular model for atherosclerosis by ex vivo support system (EVVSS	Government Budget	Assoc. Prof. Yaowapa Maneerat
5 *	Proteome of cancerous squamous cells in oral cavity and salivary gland tumor	Government Budget	Assist. Prof. Urai Chaisri
6 *	Exploring Transcriptional factor-Nuclear Factor kappa B (NF-kB) activation in malaria as a new regulating factor in the pathogenesis of malaria	Faculty of Tropical Medicine, Mahidol University	Assoc. Prof. Parnpen Viriyavejaku
7 *	Excretory secretion from infective stage <i>Gnathostoma spinigerum</i> larva decrease function of human cytotoxic immune cells	Faculty of Tropical Medicine, Mahidol University	Assoc. Prof. Yaowapa Maneerat
8 *	Exploring Transcriptional factor-Nuclear factor kappa B (NF-KB) as a prognostic factor in developing acute renal failure in <i>Plasmodium falciparum</i> patients	The Vejdusit Foundation	Assoc. Prof. Parnpen Viriyavejaku
Depart	ment of Tropical Pediatrics		
1 *	Efficacy and safety of Dengue vaccine in healthy children aged 4 to 11 years in Thailand (CYD23)	Sanofi Pasteur Co., Ltd.	Prof. Arunee Sabchareon
2 ***	A controlled study of the safety and immunogenicity of ChimericVaxTM Japanese encepphalitus vaccine in Thai toddlers and children	Sanofi Pasteur Co., Ltd.	Prof. Arunee Sabchareon
3 ***	Evaluation of long-term immunity against Japanese encephalitis in Children vaccinated with Japanese encephalitis Vaccine	Department of Tropical Pediatrics	Assoc. Prof Pornthep Chanthavanich
4 ***	Accuracy assessment of using WHO criteria in diagnosis of dengue infection	Department of Tropical Pediatrics	Assoc. Prof Pornthep Chanthavanich
5 ***	Favirab <sup>™</sup> post prescription event monitoring	Sanofi Pasteur Co., Ltd.	Assoc. Prof Pornthep Chanthavanich
6 ***	The comparison of immunogenicity and adverse reactions after immunization with Japanese Encephalitis vaccine produced by BIKEN and Government Pharmaceutical Organization (GPO) in healthy Thai children (JE0150)	Government Pharmaceutical Organization	Assoc. Prof Pornthep Chanthavanich
7 ***	Evaluation of long term immunity against rabies in children vaccinated with different pre-esposure regimens of PCEC (Rabipurâ) and the exposure in the children previously vaccinated with PCEC pre-exposure regimens (149P6)	Department of Tropical Pediatrics	Assist. Prof. Kriengsak Limkittiku
8 **	Socio-Behavioral Focus Group Study of Community Knowledge and Attitudes related to the Dengue Fever and an Up-coming Dengue Vaccination in Ratchaburi, Thailand.	Pediatric Dengue Vaccine Initiative (PDVI), International Vaccine Institute, Seoul, Koria	Dr. Alfred Pach, Dr. Linda Kaljee, Assoc. Prof. Chukiat Sirivichayakul
9 ***	Protective Antibodies Against Erythrocyte Invasion Ligands in <i>Plasmodium falciparum</i> in Thailand	Faculty of Tropical Medicine, Mahidol University	Assist. Prof. Watcharee Chokejindachai
10 *	Development of human monoclonal antibody specific to dengue virus	JST-JICA project	Assist. Prof. Kriengsak Limkittiku

No.	Research Title	Grant	Principal investigator
Office	of the Dean		
1 ***	Studies on oxidative stress activation by various Thai medicinal plants, radiation, and X- ray <i>in vitro</i>	Government Budget	Ms. Cheeraratana Cheeramakara
2 ***	Study on mouse macrophage cell (RAW 264.7) functions after exposure of artemisinin derivatives <i>in vitro</i>	Faculty of Tropical Medicine, Mahidol University	Mr. Naphachai Suthisai
Vaccine	e Trial Centre		
1 ***	A Randomized, international, Double-Blinded (With In-House Blinding), Controlled With GARDASILTM,Dose-Ranging, Tolerability, Immunogenicity, and Efficacy Study of a Multivalent Human Papillomavirus (HPV) L1 Virus-Like Particle (VLP) Vaccine Administered to 16 to 26 Year Old Women	Merck & Co., Inc	Prof. Punnee Pitisuttithum
2 **	Establishment of a <i>Shigella sonnei</i> challenge model for evaluation of future vaccine candidates	US Army Medical Research and Meterial Command and the National Institue of Allergy and Infectious Diseases (NIAID)	Prof. Punnee Pitisuttithum
3 ***	A phase III trial of Aventis Pasteur live recombinant ALVAC-HIV (VCP1521) priming with Vaxgen gp 120 B/E (AIDSVAX B/E) boosting in HIV-uninfected Thai adults	Walter Reed Army Institute of Research	Dr. Supachai Ruekngam (Prof. Punnee Pitisuttithum)
4*	Phase II/III safety and immunogenicity of pandemic live attenuated influenza vaccine (PLAIV) candidate strain A/17/CA/2009//38 (HIN1) in healthy Thais	Thai Health Promotion Foundation	Prof. Punnee Pitisuttithum
5*	Phase III Clinical Trial to Study the Immunogenicity, Tolerability, and Manufacturing Consistency of V503 (A Multivalent Human Papillomavirus [HPV] L1 Virus-Like Particle [VLP] in Preadolescents and Adolescents (9 to 15 years old) with a Comparison to Young Women (16 to 26 years old)	Merck & Co., Inc	Prof. Punnee Pitisuttithum
The Tro	ppMed Diagnostic Center		
1 ***	A new diagnostic tool of concentrating Dengue virus surface antigen by the cooperate between Magnetic beads and conventional RT-PCR	Faculty of Tropical Medicine, Mahidol University	Ms. Hathairad Hananantachai

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## Faculty of Tropical Medicine, Mahidol University

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