

# Collaborating Centres

## Annual report 9/2012-9/2013

**Institution Name:** Mahidol University

**Name of the relevant department, unit, section or area of the institution**

Department of Clinical tropical Medicine, Faculty of Tropical medicine

**City** Bangkok

**Country** Thailand

**Reference Number** THA-42

**Title** WHO Collaborating Centre for Clinical management of Malaria

**Report Year** 9/2012-9/2013

### 1. Implementation of work plan

#### Activity 1 Technical collaboration

##### Explanation

October 30, 2012

Evaluating the 3<sup>rd</sup> year activities and the 4<sup>th</sup> year plan of Malaria Molecular Research Unit, Department of Parasitology, Faculty of Medicine, Chulalongkorn University Hospital, Thailand.

December 12-14, 2012

Collaborating with faculty of Tropical Medicine, Mahidol University, SEAMEO-TROPMED Network to organize Joint International Tropical Medicine Meeting, (JITMM), Bangkok, Thailand.

## Activity 2 Informal exchange via research and scientific articles in journals

### Explanation

*Followings were publications in international journals:*

#### [Risk factors of shock in severe falciparum malaria.](#)

Arnold BJ, Tangpukdee N, Krudsood S, Wilairatana P.  
Southeast Asian J Trop Med Public Health. 2013 Jul 4;44(4):541-50.

#### [Pharmacokinetic and pharmacodynamic considerations in antimalarial dose optimization.](#)

White NJ.  
Antimicrob Agents Chemother. 2013 Sep 3. [Epub ahead of print]

#### [Neonatal intensive care in a karen refugee cAMP: a 4 year descriptive study.](#)

Turner C, Carrara V, Aye Mya Thein N, Chit Mo Mo Win N, Turner P, Bancone G, White NJ, McGready R, Nosten F.  
PLoS One. 2013 Aug 22;8(8):e72721. doi: 10.1371/journal.pone.0072721.

#### [Evaluation of the phenotypic test and genetic analysis in the detection of glucose-6-phosphate dehydrogenase deficiency.](#)

Nantakomol D, Paul R, Palasuwan A, Day NP, White NJ, Imwong M.  
Malar J. 2013 Aug 21;12(1):289. doi: 10.1186/1475-2875-12-289.

#### [Malaria.](#)

White NJ, Pukrittayakamee S, Hien TT, Faiz MA, Mokuolu OA, Dondorp AM.  
Lancet. 2013 Aug 15. doi:pii: S0140-6736(13)60024-0. 10.1016/S0140-6736(13)60024-0. [Epub ahead of print]

#### [Clinical Factors for Severity of Plasmodium falciparum Malaria in Hospitalized Adults in Thailand.](#)

Sagaki P, Thanachartwet V, Desakorn V, Sahassananda D, Chamnanchanunt S, Chierakul W, Pitisuttithum P, Ruangkananasetr P.  
PLoS One. 2013;8(8):e71503. doi: 10.1371/journal.pone.0071503.

#### [Randomized Controlled Trial of Levamisole Hydrochloride as Adjunctive Therapy in Severe Falciparum Malaria With High Parasitemia.](#)

Maude RJ, Silamut K, Plewes K, Charunwatthana P, Ho M, Abul Faiz M, Rahman R, Hossain MA, Hassan MU, Bin Yunus E, Hoque G, Islam F, Ghose A, Hanson J,

Schlatter J, Lacey R, Eastaugh A, Tarning J, Lee SJ, White NJ, Chotivanich K, Day NP, Dondorp AM.  
J Infect Dis. 2013 Sep 6. [Epub ahead of print]

[A Randomized Comparison of Dihydroartemisinin-Piperaquine and Artesunate-Amodiaquine Combined With Primaquine for Radical Treatment of Vivax Malaria in Sumatera, Indonesia.](#)

Pasaribu AP, Chocejindachai W, Sirivichayakul C, Tanomsing N, Chavez I, Tjitra E, Pasaribu S, Imwong M, White NJ, Dondorp AM.  
J Infect Dis. 2013 Aug 28. [Epub ahead of print]

[Microsatellite genotyping of Plasmodium vivax infections and their relapses in pregnant and non-pregnant patients on the Thai-Myanmar border.](#)

Thanapongpichat S, McGready R, Luxemburger C, Day NP, White NJ, Nosten F, Snounou G, Imwong M.  
Malar J. 2013 Aug 6;12:275. doi: 10.1186/1475-2875-12-275.

[Nuclear factor kappa B modulates apoptosis in the brain endothelial cells and intravascular leukocytes of fatal cerebral malaria.](#)

Punsawad C, Maneerat Y, Chaisri U, Nantavisai K, Viriyavejakul P.  
Malar J. 2013 Jul 26;12:260. doi: 10.1186/1475-2875-12-260.

[Serum antibody responses to pneumococcal colonisation in the first two years of life: results from a SE Asian longitudinal cohort study.](#)

Turner P, Turner C, Green N, Ashton L, Lwe E, Jankhot A, Day NP, White NJ, Nosten F, Goldblatt D.  
Clin Microbiol Infect. 2013 May 31. doi: 10.1111/1469-0691.12286. [Epub ahead of print]

[T helper \(Th\) 1 and Th2 cytokine expression profile in dengue and malaria infection using magnetic bead-based bio-plex assay.](#)

Maneekan P, Leungwutiwong P, Misse D, Luplertlop N.  
Southeast Asian J Trop Med Public Health. 2013 Jan;44(1):31-6.

[C-terminal polymorphism of Plasmodium falciparum merozoite surface protein-1 \(MSP-1\) from Tak Province, Thailand.](#)

Viputtigul K, Tungpukdee N, Ruangareerate T, Luplertlop N, Wilairatana P, Gaywee J, Krudsood S.  
Southeast Asian J Trop Med Public Health. 2013 Jan;44(1):1-12.

[Lethal malaria: Marchiafava and Bignami were right.](#)

White NJ, Turner GD, Day NP, Dondorp AM.

J Infect Dis. 2013 Jul 15;208(2):192-8. doi: 10.1093/infdis/jit116. Epub 2013 Apr 12.

[Population pharmacokinetics of intramuscular artesunate in African children with severe malaria: implications for a practical dosing regimen.](#)

Hendriksen IC, Mtove G, Kent A, Gesase S, Reyburn H, Lemnge MM, Lindegardh N, Day NP, von Seidlein L, White NJ, Dondorp AM, Tarning J.

Clin Pharmacol Ther. 2013 May;93(5):443-50. doi: 10.1038/clpt.2013.26. Epub 2013 Feb 8.

[Prevalence of antifolate resistance mutations in Plasmodium falciparum isolates in Afghanistan.](#)

Awab GR, Pukrittayakamee S, Jamornthanyawat N, Yamin F, Dondorp AM, Day NP, White NJ, Woodrow CJ, Imwong M.

Malar J. 2013 Mar 15;12:96. doi: 10.1186/1475-2875-12-96.

[Plasmodium malariae-infected erythrocytes in the peripheral blood, liver, stomach and duodenum: an ultrastructural study.](#)

Pongponratn E, Prommano O, Chaisri U, Viriyavejakul P, Wilairatana P.

Southeast Asian J Trop Med Public Health. 2012 Sep;43(5):1080-6.

[Factors associated with acute renal failure in adults with severe falciparum malaria.](#)

Win KK, Thanachartwet V, Wattanagoon Y, Jerraksuwan S, Ruangweerayut R, Desakorn V.

Southeast Asian J Trop Med Public Health. 2012 Sep;43(5):1071-9.

[Acute Renal Failure in Patients with Severe Falciparum Malaria: Using the WHO 2006 and RIFLE Criteria.](#)

Thanachartwet V, Desakorn V, Sahassananda D, Kyaw Win KK, Supaporn T.

Int J Nephrol. 2013;2013:841518. doi: 10.1155/2013/841518. Epub 2013 Jan 29.

[Efficacy of three insecticides against Anopheles dirus and Anopheles minimus, the major malaria vectors, in Kanchanaburi Province, Thailand.](#)

Pemo D, Komalamisra N, Sungvornyothin S, Attrapadung S.

Southeast Asian J Trop Med Public Health. 2012 Nov;43(6):1339-45.

[Fluid resuscitation of adults with severe falciparum malaria: effects on Acid-base status, renal function, and extravascular lung water.](#)

Hanson JP, Lam SW, Mohanty S, Alam S, Pattnaik R, Mahanta KC, Hasan MU, Charunwatthana P, Mishra SK, Day NP, White NJ, Dondorp AM. Crit Care Med. 2013 Apr;41(4):972-81. doi: 10.1097/CCM.0b013e31827466d2.

[Rationale for recommending a lower dose of primaquine as a Plasmodium falciparum gametocytocide in populations where G6PD deficiency is common.](#)

White NJ, Qiao LG, Qi G, Luzzatto L.

Malar J. 2012 Dec 14;11:418. doi: 10.1186/1475-2875-11-418. Review.

[Population pharmacokinetic and pharmacodynamic properties of intramuscular quinine in Tanzanian children with severe Falciparum malaria.](#)

Hendriksen IC, Maiga D, Lemnge MM, Mtove G, Gesase S, Reyburn H, Lindegardh N, Day NP, von Seidlein L, Dondorp AM, Tarning J, White NJ.

Antimicrob Agents Chemother. 2013 Feb;57(2):775-83. doi: 10.1128/AAC.01349-12. Epub 2012 Nov 26.

[Primaquine to prevent transmission of falciparum malaria.](#)

White NJ.

Lancet Infect Dis. 2013 Feb;13(2):175-81. doi: 10.1016/S1473-3099(12)70198-6. Epub 2012 Nov 23.

[Effect of high-dose or split-dose artesunate on parasite clearance in artemisinin-resistant falciparum malaria.](#)

Das D, Tripura R, Phyo AP, Lwin KM, Tarning J, Lee SJ, Hanpithakpong W, Stepniewska K, Menard D, Ringwald P, Silamut K, Imwong M, Chotivanich K, Yi P, Day NP, Lindegardh N, Socheat D, Nguon C, White NJ, Nosten F, Dondorp AM.

Clin Infect Dis. 2013 Mar;56(5):e48-58. doi: 10.1093/cid/cis958. Epub 2012 Nov 21.

[Defining falciparum-malaria-attributable severe febrile illness in moderate-to-high transmission settings on the basis of plasma PfHRP2 concentration.](#)

Hendriksen IC, White LJ, Veenemans J, Mtove G, Woodrow C, Amos B, Saiwaew S, Gesase S, Nadjm B, Silamut K, Joseph S, Chotivanich K, Day NP, von Seidlein L, Verhoef H, Reyburn H, White NJ, Dondorp AM.

J Infect Dis. 2013 Jan 15;207(2):351-61. doi: 10.1093/infdis/jis675. Epub 2012 Nov 7.

[Counter perspective: artemisinin resistance: facts, fears, and fables.](#)

White NJ.

Am J Trop Med Hyg. 2012 Nov;87(5):785. doi: 10.4269/ajtmh.2012.12-0573. No abstract available.

[Genetic diversity of plasmodium vivax merozoite surface protein-3alpha \(Pvmsp-3alpha\) gene in Jhapa District of Nepal.](#)

Adhikari M, Ranjitkar S, Schousboe ML, Alifrangis M, Imwong M, Bhatta DR, Banjara MR.

Southeast Asian J Trop Med Public Health. 2012 Mar;43(2):280-6.

[Effects of antimalarial drugs on movement of Plasmodium falciparum.](#)

Wongtanachai J, Silamut K, Day NP, Dondorp A, Chaisri U.

Southeast Asian J Trop Med Public Health. 2012 Jan;43(1):1-9.

[Is areca innocent? The effect of areca \(betel\) nut chewing in a population of pregnant women on the Thai-Myanmar border.](#)

Chue AL, Carrara VI, Paw MK, Pimanpanarak M, Wiladphaingern J, van Vugt M, Lee SJ, Nosten F, McGready R.

Int Health. 2012 Sep;4-172(3):204-209.

[Temporal trends in severe malaria in Chittagong, Bangladesh.](#)

Maude RJ, Hasan MU, Hossain MA, Sayeed AA, Kanti Paul S, Rahman W, Maude RR, Vaid N, Ghose A, Amin R, Samad R, Yunus EB, Rahman MR, Bangali AM, Hoque MG, Day NP, White NJ, White LJ, Dondorp AM, Faiz MA. Malar J. 2012 Sep 12;11:323. doi: 10.1186/1475-2875-11-323.

[Artemisinin resistance containment project in Thailand. II: Responses to mefloquine-artesunate combination therapy among falciparum malaria patients in provinces bordering Cambodia.](#)

Satimai W, Sudathip P, Vijaykadga S, Khamsiriwatchara A, Sawang S, Potithavoranan T, Sangvichean A, Delacollette C, Singhasivanon P, Kaewkungwal J, Lawpoolsri S.

Malar J. 2012 Aug 28;11:300.

[Diagnosing severe falciparum malaria in parasitaemic African children: a prospective evaluation of plasma PfHRP2 measurement.](#)

Hendriksen IC, Mwanga-Amumpaire J, von Seidlein L, Mtove G, White LJ, Olaosebikan R, Lee SJ, Tshefu AK, Woodrow C, Amos B, Karema C, Saiwaew S, Maitland K, Gomes E, Pan-Ngum W, Gesase S, Silamut K, Reyburn H, Joseph S, Chotivanich K, Fanello CI, Day NP, White NJ, Dondorp AM.

PLoS Med. 2012;9(8):e1001297. doi: 10.1371/journal.pmed.1001297. Epub 2012 Aug 21.

[Population pharmacokinetic and pharmacodynamic modeling of amodiaquine and desethylamodiaquine in women with Plasmodium vivax malaria during and after pregnancy.](#)

Tarning J, Chotsiri P, Jullien V, Rijken MJ, Bergstrand M, Cammas M, McGready R, Singhasivanon P, Day NP, White NJ, Nosten F, Lindegardh N. Antimicrob Agents Chemother. 2012 Nov;56(11):5764-73. doi: 10.1128/AAC.01242-12. Epub 2012 Aug 27.

[Sequence variation does not confound the measurement of plasma PfHRP2 concentration in African children presenting with severe malaria.](#)

Ramutton T, Hendriksen IC, Mwanga-Amumpaire J, Mtove G, Olaosebikan R, Tshefu AK, Onyamboko MA, Karema C, Maitland K, Gomes E, Gesase S, Reyburn H, Silamut K, Chotivanich K, Promnares K, Fanello CI, von Seidlein L, Day NP, White NJ, Dondorp AM, Imwong M, Woodrow CJ. Malar J. 2012 Aug 16;11:276. doi: 10.1186/1475-2875-11-276.

[Respiratory manifestations of malaria.](#)

Taylor WR, Hanson J, Turner GD, White NJ, Dondorp AM. Chest. 2012 Aug;142(2):492-505. doi: 10.1378/chest.11-2655. Review.

[Artemisinin resistance containment project in Thailand. \(I\): Implementation of electronic-based malaria information system for early case detection and individual case management in provinces along the Thai-Cambodian border.](#)

Khamsiriwatchara A, Sudathip P, Sawang S, Vijakadge S, Potithavoranan T, Sangvichean A, Satimai W, Delacollette C, Singhasivanon P, Lawpoolsri S, Kaewkungwal J. Malar J. 2012 Jul 29;11:247. doi: 10.1186/1475-2875-11-247.

[Genotyping of Plasmodium vivax reveals both short and long latency relapse patterns in Kolkata.](#)

Kim JR, Nandy A, Maji AK, Addy M, Dondorp AM, Day NP, Pukrittayakamee S, White NJ, Imwong M. PLoS One. 2012;7(7):e39645. doi: 10.1371/journal.pone.0039645. Epub 2012 Jul 13.

[Diagnosis, clinical presentation, and in-hospital mortality of severe malaria in HIV-coinfected children and adults in Mozambique.](#)

Hendriksen IC, Ferro J, Montoya P, Chhaganlal KD, Seni A, Gomes E, Silamut K, Lee SJ, Lucas M, Chotivanich K, Fanello CI, Day NP, White NJ, von Seidlein L, Dondorp AM.

Clin Infect Dis. 2012 Oct;55(8):1144-53. Epub 2012 Jul 2.

[Activation of nuclear factor kappa B in peripheral blood mononuclear cells from malaria patients.](#)

Punsawad C, Krudsood S, Maneerat Y, Chaisri U, Tangpukdee N, Pongponratn E, Nantavisai K, Udomsangpetch R, Viriyavejakul P.

Malar J. 2012 Jun 10;11:191. doi: 10.1186/1475-2875-11-191.

### **Activity 3** Capacity building via education and training

#### **Explanation**

January 29, 2013

Speakers of sessions “Overview of severe malaria” and “Efficacy of new antimalarials” in International Training Course on Malaria Prevention and Control for Africa Personnel organized by of Japan International Cooperation Agency (JICA), Thailand International Development Cooperation Agency (TICA), Ministry of Public Health/Thailand.

March 30, 2013

Speaker of topic “Malaria treatment and prophylaxis’ in Pharmacology workshop entitled: Trends in Infectious Diseases Pharmacotherapy organized by Ministry of Public Health/ Thailand and 4 Faculties of Pharmacology (Chiangmai, Khon Kaen, Silpakorn, and Prince of Songkla Universities) in Thailand.

April 1, 2013

Speaker of topic ‘Severe malaria’ to 11 participants from USA, Austria, and Japan organized by the Faculty of Tropical Medicine, Mahidol University.

August 13, 2013



Speaker of topic ‘Severe malaria’ to 18 participants from Jordan, Austria, Indonesia, and Japan organized by the Faculty of Tropical Medicine, Mahidol University.

September 16-20, 2013

The Faculty of Tropical Medicine, Mahidol University on behalf of WHO Collaborating Centre for Clinical Management of Malaria in collaboration with the World Health Organization Regional Office for South East Asia (WHO/SEARO) and WHO Mekong Malaria (MMP) organized the 11<sup>th</sup> International Training Course on Management of Malaria for 33 participants from 14 countries including Canada, Tajikistan, Nigeria, Ethiopia, Italy, Afganistan, Bangladesh, Myanmar, Indonesia, Cambodia, Philippines, Solomon Islands, Japan, and Thailand at the Faculty of Tropical Medicine, Mahidol University.

#### **Activity 4 Organizing international and national conferences/meetings**

##### **Explanation**

December 12-14, 2012

Collaborating with faculty of Tropical Medicine, Mahidol University, SEAMEO-TROPMED Network to organize Joint International Tropical Medicine Meeting, (JITMM), Bangkok, Thailand.

September 9, 2013

Collaborating with Royal College of Physicians of Thailand to write “Guidelines in Management of Malaria in Thailand”.

## **2. Other information related to the collaboration**

January 28-February 1, 2013

Professor Srivicha Krudsood, Deputy-director of WHO Collaborating Centre for Clinical Management of Malaria visited WHO/SEARO and discussed technical collaboration with Dr. Leonard Ortega, Adviser/ Malaria/ WHO SEARO at WHO/SEARO, New Delhi, India.

There was no difficulty encountered in the collaboration and suggestions for increased and improved collaboration with WHO.

There was no visit of the centre staff to WHO (HQ).

### **3. Collaboration with other WHO Collaborating Centres:**

None