

出國報告（出國類別：國際會議）

2017 年第 48 屆國際寄生蟲及抗體研究大會
會(Department of Parasitology, Siriraj Hospital
International Conference: Towards the New Realm of
Parasitology and Engineered Antibodies Research)

服務機關：高雄榮總感染管制室

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摘要

廣東住血線蟲為一在東南亞及太平洋盆地常見之寄生蟲，人類被感染主要因為吃了不潔的蔬菜或是含有第三期中間宿主的蝸牛、福壽螺或蝦子、青蛙...等。會中本人發表嗜伊紅性腦膜炎生物標記。神經 14-3-3 蛋白是一種神經蛋白，主要是評估腦部損傷的嚴重度。在之前的研究中，被認為與CJD (狂牛症)有關。但最近的研究認為與某些腦部病變（例如感染或退化疾病）有關。本次會議應泰國曼谷 MAHIDOL 大學附屬 Siriraj 醫院寄生蟲學科邀請參加於 2017 年 11 月 23 日至 2017 年 11 月 25 日於泰國曼谷舉行之第 48 屆國際寄生蟲及抗體研究大會(Department of Parasitology, Siriraj Hospital International Conference: Towards the New Realm of Parasitology and Engineered Antibodies Research)。在大會中擔任主持人並發表專題演講：題目為 14-3-3 isoform 抗體在廣東住血線蟲嗜伊紅性腦膜炎之表現。本次國際會議是廣東住血線蟲工作群最重要的研究國際會議，有來自 17 個國家超過 100 人參加了會議。職在此一平台可以有機會與世界各個專家合作交流。當中還包含建立寄生蟲實驗室的全球性品質鑑定平台(External Quality Assessment Program in Parasitology)。藉由 17 個國家實驗室參與，確定個別實驗室對寄生蟲疾病之鑑定品質。對提升本院國際地位及臨床實驗室寄生蟲檢驗品質大有助益。

關鍵字: 嗜伊紅性腦膜炎，廣東住血線蟲，14-3-3 isoform

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一.目的

1. 藉由國際性學術會議，精進個人能力及研究實力。提升本院學術地位。
2. 藉由國際性學術會議了解最新研究趨勢及診治重點，並聆聽國際級大師專題演說，試圖找出研究趨勢。
3. 統整本科作法及國外診治作法之差異，於會議後進行比較，提供科內同仁參考。
4. 藉由會議與世界各國專家及學者交流，建立合作平台，參與寄生蟲診斷實驗室品質認證。提升本院臨床實驗室水準及品質。

二. 過程

Day 1(24 Nov 2017) 廣東住血線蟲國際研討會

Mahido 大學附設 Siriraj 醫院有兩千多床，內科並不像台灣細分成感染科，胸腔內科，腸胃科，腎臟科等次專科，僅有腦科及心臟科其餘均歸在大內科。寄生蟲學科有十位教授均有博士學位，留學歐美且英文非常流利。國際化程度高與英國，美國等各醫學中心及研究單位均有密切合作。例如與 UK Oxford wellcome trust 合作平台。會議中由各國的廣東住血線蟲專家發表論文及演講。內容多為分子生物基因研究深度很夠，有別於台灣的基礎組織，免疫染色，西方墨點等相對基礎研究。會中每位專家發表 15 分鐘演講，之後由主持人帶領討論及媒合有可能之國際合作。參與者不僅能吸收最新知識之外，也能親直接與此領域專家討論，也是一個很重要的經驗。美中不足的是內容多且豐富，時間分配也較為不足。待大會晚餐時可進一步深入討論。

Day 2(25 Nov 2017)廣東住血線蟲國際研討會專家學者座談及校園巡禮

本日繼續深入討論。在 Siriraj 醫院寄生蟲學科主任的建議下，邀請與會 17 國家學者專家加入第一屆寄生蟲實驗室診斷品質平台，由 Siriraj 醫院寄生蟲學科擔任第一次主辦提供實驗室考試玻片及檢體，之後由各國輪流舉辦。此舉有助於使本院臨床實驗室與國際接軌，並提供後續合作機會。會後在 Siriraj 醫院國際關係部門人員帶領下展開校園巡禮，並參觀該校藥草植物園。了解該校如何將中草藥結合科學證據，進行臨床試驗發展疾病治療新療法。

三. 心得

本次國際會議是廣東住血線蟲工作群最重要的研究國際會議，有來自 17 個國家超過 100 人參加了會議。職在此一平台可以有機會與世界各個專家合作交流。此次會議的主題為發表目前最新之神經醫學及廣東住血線蟲嗜伊紅性腦膜炎最新進展。當中包含了臨床基礎分子生物研究、衛生教育等…當中還包含建立寄生蟲實驗室的全球性品質鑑定平台(External Quality Assessment Program in Parasitology)。藉由 17 個國家實驗室參與，確定個別實驗室對寄生蟲疾病之鑑定品質。本次會議全程以英文報告及主持，有些緊張，也讓我更深刻體會到國際研究要有成果，語言及溝通能力至為重要。

四. 建議事項（包括改進作法）

目前醫院大力鼓勵各職類參加國際會議提出報告增進研究水準及能量。開會回來在科內分享，也引起很大共鳴，建議對國際會議等級及重要性

擬定不同補助標準。以利申請者能無經濟上後顧之憂與會。其他建議包括增加研究經費以支援研究醫師、研究人員從事各種研究。結合臨床發現及創見與基礎老師密切結合發展臨床有用之基礎研究。藉由本次會議也開啟了日後交換學者、醫師（簽訂 MOU）以增進技術交流、研究能量之可能。

五. 附錄

1. 議程

**International Conference on Parasitology held in conjunction with the
48th Anniversary of the Department of Parasitology
Faculty of Medicine Siriraj Hospital
Mahidol University**

Thursday 23rd November 2017

Venue: Department of Parasitology, 7th Floor Adulyadejvikrom Building, Faculty of Medicine Siriraj Hospital, Bangkok

Morning Session (9:30-12:00)

Chairperson: Dean, Professor Dr. Prasit Watthanapa

Formal Ceremony and Exhibition - in conjunction with the 48th Anniversary of the Department of Parasitology

12.00-13:00- Lunch

Pre-Conference Session on Parasitology Research (13:00-16:20)

13.00-14.20

Chairpersons: Hoi-Sen Yong & Xiao-Xian Gan

-Taeniasis and Neurocysticercosis in Asia: Present Situation and Perspectives (20 min)

Akira Ito, Toni Wandra, Kadek Swastika, Nyoman S. Dharmawan, Paron Dekumyoy, Tiaoying Li, Anu Davaasuren

(Department of Parasitology, Asahikawa Medical University, Asahikawa, Japan)

-Echinococcoses in Asia: the Present Situation and Perspectives (20 min)

Akira Ito

(Department of Parasitology, Asahikawa Medical University, Asahikawa, Japan)

-A Review of *Spirometra* spp. Found in Peninsular Malaysia Based on Past and Current Studies (20 min)

Stephen Ambu, Amalraj Fabian Davamani

(International Medical University, Kuala Lumpur, Malaysia)

-Plasmodium knowlesi: Man, Monkey and Mosquito (20 min)

Indra Vythilingam

(Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia)

14.20-15:00- Refreshments

15:00-16:20

Chairpersons: Akira Ito & Indra Vythilingam

-Historical Review and Current Status of Gnathostomiasis in Mainland China (20 min)

Xiaoxian Gan

(Institute of Parasitic Diseases, Zhejiang Academy of Medical Sciences, P.R. China)

-Dynamics of Parasite Contamination and Transmission in Philippine Agriculture: Towards Control Strategies of Food-borne Parasites (20 mins)

Vachel Gay V. Paller

(Institute of Biological Sciences, University of the Philippines Los Baños, Philippines)

- Speakers: (2 Topics from Korea) (40 mins)

Dinner (18:00-20:00)

Friday 24th November 2017

Venue: Conference Hall, 1st Floor Siriraj Medical Research Building (SiMR), Faculty of Medicine Siriraj Hospital, Bangkok

Parallel Sessions on “*Angiostrongylus* and Angiostrongyliasis” and “Therapeutic Antibody” held in conjunction with the 48th Anniversary of the Department of Parasitology, Faculty of Medicine Siriraj Hospital, Mahidol University

8.00-8.30 Registration

8.30-9.00 Opening Ceremony: Dean, Professor Dr. Prasit Watthanapa

9.00-9.15 Refreshment

Session: *Angiostrongylus* and Angiostrongyliasis

Venue: Conference room, 12th Floor Siriraj Medical Research Building (SiMR)

Morning Session (9.15-10.30)

Chairpersons: Silvana C. Thiengo & Wu Zhongdao

-*Angiostrongylus cantonensis* infection, a potential cause of eosinophilic meningitis in Laos (15 min)

Damien Ming, Tehmina Bharucha, Sayaphet Rattanavong, Audrey Dubot-Pérès, Paul N. Newton, Matthew T. Robinson

(Laos-Oxford-Mahosot Hospital-Wellcome Trust Research Unit, University of Oxford, UK)

-Vectors and spatial patterns of *Angiostrongylus cantonensis* in selected rice-farming villages of Muñoz, Nueva Ecija, Philippines (15 min)

Ma. Angelica A. Tujan, Ian Kendrick C. Fontanilla, Vachel Gay V. Paller

(Institute of Biological Sciences, University of the Philippines Los Baños, Laguna, Philippines)

- Occurrence of *Angiostrongylus cantonensis* in rodents from the rice granary of the Philippines and associated risk factors for zoonotic transmission (15 min)

Diane Shiela C. Castillo, Vachel Gay V. Paller

(College of Arts and Sciences, Central Luzon State University, Philippines)

-A comparison of population structure of *Angiostrongylus cantonensis* in South China and Hawaii (15 min)

Ke Chen, Xia-Bing Dai, Susan Jarvi, De-Hua Lai, Zhao-Rong Lun

(Center for Parasitic Organisms, Sun Yat-Sen University, Guangzhou, P.R. China)

-Prediction of the potential geographic distribution of *Pomacea canaliculata* in China using Maxent ecologic niche model (15 min)

Guo Yunhai, Mohamed R. Habib, Eniola M. Abe, Lv Shan, Zhang Yi, Zhou Xiaonon

(National Institute of Parasitic Diseases, Shanghai, P.R. China)

10.30-10:45- Refreshments

10:45- 12:00

Chairpersons: Stephen Ambu & Alessandra Loureiro Morassutti

-Angiostrongyliasis in Hawaii: Past, Present and Future (15 min)

Robert H. Cowie

(Pacific Biosciences Research Center, University of Hawaii, Honolulu, Hawaii, USA)

-Rat lungworm disease in Hawai'i: An update (15 min)

Susan Jarvi, Kathleen Howe, Stefano Quarta, Steven Jacquier, , Robert McHugh, Deniz Bicakci, Michael Severino, Crystal Dasalla, Noelle Lovesy, Kirsten Snook, John Jacob, Lisa Kaluna, Jon Botticelli, Bruce Torres Fisher, Christopher Niebuhr, Praphathip Eamsobhama

(Daniel K. Inouye College of Pharmacy, University of Hawaii at Hilo, Hawaii, USA)

-Documentation of infection levels and multiple stages of *Angiostrongylus. cantonensis* in wild rats (*Rattus sp.*) on Hawai'i Island (15 min)

Kathleen Howe, Stefano Quarta, Steven Jacquier, Christopher Niebuhr, Deniz Bicakci, Crystal Dasalla, Noelle Lovesy, Kirsten Snook, Robert McHugh, Susan Jarvi

(Daniel K. Inouye College of Pharmacy, University of Hawaii at Hilo, Hawaii, USA)

-*Angiostrongylus cantonensis* in mollusks and rodents in the State of Rio de Janeiro, southeast Brazil: Metropolitan and Centro Fluminense region (15 min)

Silvana C. Thiengo, Paulo S.S. Rodrigues, Monica A. Fernandez, Tainá C.C. Monte, Arnaldo Maldonado Júnior

(Instituto Oswaldo Cruz/Fiocruz - Pavilhão Adolpho Lutz, Av. Brazil)

-An overview of *Angiostrongylus cantonensis* in the Canary Islands, Spain (15 min)

Martin Alonso A, Feliu C, Néstor Abreu Acosta, Maria Antonieta Quispe Ricalde, Katherine García Livia, Natalia Martín Carrillo, Borja del Castillo Figueruelo, Estefanía Abreu Yanes, Pilar Foronda Rodriguez

(Instituto Universitario de Enfermedades Tropicales y Salud Pública de Canarias., Universidad de La Laguna. Tenerife, Spain)

12:00-13:00 – Lunch

Afternoon Session (13:00-17:15)

13.00-15.00

Chairpersons: Susan Jarvi & Kittisak Sawanyawisuth

-*Angiostrongylus cantonensis* in Ecuador: 2008 to present (15 min)

Luis Fernando Solórzano, Hilda Hernández, Lázara Rojas, Jenny Muzzio, Francisco Sánchez, Luigi Martini

(National Institute of Research in Public Health, Ecuador)

-Epidemiology of *Angiostrongylus cantonensis* in north-central Jamaica (15 min)

John Lindo, Marco-Dean Brown

(University of the West Indies, Jamaica)

-Snapshot on *Angiostrongylus cantonensis* in Marquezas, French Polynesia: an issue for human health and biodiversity conservation? (15 min)

David Modrý

(University of Veterinary and Pharmaceutical Sciences Brno Palackeho, Czech Republic)

-Demyelination caused by *Angiostrongylus cantonensis* and its treatment by using a Chinese herbal named Tanshinone IIA combined in BABL/c mice (15 min)

Feng Ying, Feng Feng, Jie Wei, Sun Xi, Wu Zhongdao

(Department of parasitology of Zhongshan School of Medicine, Sun Yat-sen University, Guangzhou, P.R. China)

Chairpersons: John Lindo & Petrus Tang

-Factors associated with duration of headache in eosinophilic meningitis caused by *Angiostrongylus cantonensis* (15 min)

Kittisak Sawanyawisuth, Kanlayanee Sawanyawisuth, Paramat Thimachai, Chanin Peerabool, Pewpan M. Intapan, Wanchai Maleewong, Panita Limpawattana, Jarin Chindaprasirt, Kannikar Kongbunkiat, Somsak Tiamkao, Suthipun Jitpimolmard, Verajit Chotmongkol

(Departments of Medicine, Faculty of Medicine, Khon Kaen University, Thailand)

-Neural angiostrongyliasis : a multi-institutional one health approach (15 min)

Richard Malik, Rogan Lee, Derek Spielman, Robert H. Cowie, Eric R. Morgan

(Sydney School of Veterinary Science, University of Sydney, NSW, Australia)

-Effects of climate on transmission of *Angiostrongylus vasorum*, and approaches to risk prediction across the genus (15 min)

Eric R. Morgan

(School of Veterinary Sciences, University of Bristol, Bristol, UK)

-Failure of Idexx Angio Detect™ Test to detect antigen in the CSF or serum of dogs with neural angiostrongyliasis (15 min)

Rogan Lee, Derek Spielman, Richard Malik

(Faculty of Medicine, University of Sydney, NSW Australia)

15.00-15:15- Refreshments

15:15-16:45

Chairpersons: **Hung-Chin Tsai** & Pilar Foronda Rodriguez

-Immunochromatographic test for rapid serological diagnosis of human angiostrongyliasis (15 min)

Praphathip Eamsobhana, Anchalee Tungtrongchitr, Darawan Wanachiwanawin, Hoi-Sen Yong

(Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand)

-Mitochondrial genome and molecular systematics of *Angiostrongylus* nematode parasites of rodents (15 min)

Hoi-Sen Yong, Sze-Looi Song, Praphathip Eamsobhana

(Institute of Biological Sciences, University of Malaya, Kuala Lumpur, Malaysia)

-Resequencing and re-annotation of the *Angiostrongylus cantonensis* (Taipei isolate) genome (15 min)

Petrus Tang, Kuang-Yao Chen, Hai-Ying Yu, Qing-Shu Meng, Song-Nian Hu, Po-Jung Huang, Kai-Yuan Chan, Lian-Chen Wang

(Department of Parasitology, Bioinformatics Core Laboratory, Chang Gung University, Taoyuan, Taiwan)

- *Angiostrongylus* Data Bank – A new wide source for molecular studies (15 min)

Leandro de Mattos Pereira, Milene Guimarães de Jezuz, Alessandra Loureiro Morassutti, Carlos Graeff-Teixeira.

(Faculty of Biosciences, Pontifical Catholic University of Rio Grande do Sul, Porto Alegre, RS, Brazil)

-14-3-3 Isoform protein expression in mice with eosinophilic meningitis caused by *Angiostrongylus cantonensis* infection (15 min)

Hung-Chin Tsai, Chuan-Min Yen

(Kaohsiung Veterans General Hospital and National Yang-Ming University, Taipei, Taiwan)

-The effects of sonic hedgehog pathway in astrocytes co-cultured with excretory-secretory products of the fifth-stage larval *Angiostrongylus cantonensis* (15 min)

Kuang-Yao Chen, Lian-Chen Wang

(College of Medicine, Chang Gung University, Taoyuan, Taiwan)

16:45-17.15

Chairpersons: Robert H. Cowie & Richard Malik

Discussion & Future Collaboration Plan

Closing: Deputy Dean of International Relations

Dinner (18:00-20:30)

Saturday 25th November 2017

8:00-17:00

Mahidol University, Salaya Campus, Nakhon Pathom province

Visit Herbal Courtyard, Herbal Garden, Applied Thai Traditional Pavilion, etc.

Rose Garden, Nakhon Pathom province

Lunch & attend Popular Cultural Shows

Others

Visit Tourist Attractions nearby

2. 參考相片



團體照(左)與西班牙專家 Pilar Foronda Rodriguez 共同主持 24 NOV 2017
下午時段演講及討論(右)