

# WELCOME REMARKS AND INTRODUCTION TO SYMPOSIUM ON CESTODE ZONOOSES IN ASIA AND THE PACIFIC

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## WELCOME REMARK

We are living on the horns of a dilemma. On one hand, we like or love our own traditional local life styles, whereas on the other hand, we are challenged to adopt, or accept, or adapt the globally standardized modern life style. Therefore, we are asked to keep a balance between the two crucially different life styles. Emergent and re-emergent infectious diseases also have a similar background. All participants attending the 5<sup>th</sup> Food- and Water-Borne Parasitic Zoonoses are a rather peculiar, strange, or unique minority, because we all have enormous knowledge, experience, skills, as well as great interest and curiosity in parasitic zoonoses and simultaneously have a voluntary spirit to challenge for control of these diseases. A few months ago, 30-40 American people, mainly in California, became ill after eating flesh fried, or raw, or even live fresh water crabs (*Geothelphusa dehaani*) in so-called Americanized Japanese restaurants. None of them was of Asian origin. At that time, approximately 3,000-4,000 people were estimated to have eaten the crabs. However, local clinicians had little knowledge of such unexpected diseases, and some patient(s) were treated surgically (Bartlett, 2006). What was the disease? Yes, it is very easy for all of us to speculate or suspect what it was! It was paragonimiasis. Unfortunately, the crabs were imported to USA from Japan. This is just one example that unexpected or non-indigenous parasitic diseases may cause some outbreaks in foreign countries through importation of wild

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animals, as either foods or pets. We should remind ourselves that such wild animals, including such crabs, are full of pathogens. Trading of wild animals should be prohibited, or we may have emergent or re-emergent infectious diseases anywhere in the world. Both WHO and FAO have joined more closely to invite those who are actively working on these parasitic zoonoses. I would like to launch a word WAFP. Any kind of infectious disease, either emergent or re-emergent, may be caused through contaminated Water, contaminated Air, contaminated Food, or contaminated People. I have no doubt that all participants attending this Bangkok meeting will exchange mutual updated information, begin better collaborations, and create better friendships.

## PHILOSOPHY AND STRATEGY FOR COLLABORATION IN ASIA AND THE PACIFIC

Sustainable collaborations are only available with the philosophy that local data collected by local people are of local people, and for local people first. People from developed countries, whether politicians, semi-politicians, or researchers who want to undertake any kind of cooperation, including collaboration on field surveys in developing countries, should bear this in mind. We welcome anyone who is willing to encourage local researchers through real collaboration, including transfers of knowledge, experience, and technology that is essential for doing evidence-based science. We in Asia and the Pacific are challenged by how to write scientific articles in English. However, if any one tried to publish while ignoring the original contributions by local researchers can never be acceptable. Local people recognize such work as some kind of invasion or theft of local jewels. All local data are first for local collaborators,

with encouragement. No one should be able to buy local data or publish such data as his or her original work without a real scientific contribution other than payment of some money or sweet words.

#### INTERNATIONAL WORKSHOP AND SYMPOSIUM SPONSORED BY MINISTRY OF EDUCATION, JAPAN (MEXT)

Based on such a philosophy and strategy, I have organized several workshops and symposia from 2000 in Asia (Table 1). The Chengdu meeting in 2000 was the first, with Chinese researchers and officials from the central and local governments in China joining together with experts from around the world. It was supported by my own research funding from the Japan Society for the Promotion of Science (JSPS) and by the Asahikawa Medical Fund (former President was Prof Yoshihiko Kubo). The late Dr Carlo Urbani from WHO Hanoi joined us just when he got the job in Hanoi. Unfortunately, he passed away due to SARS (severe acute respiratory syndromes) on 29<sup>th</sup> March 2003, just before the proceedings of

the Chengdu meeting was published (Ito *et al*, 2003a). The article was dedicated to him lest we forget his great contribution. Dr Urbani and I also organized a symposium on taeniasis/cysticercosis at the 3<sup>rd</sup> Food-borne Parasitic Zoonoses (FBPZ) in Bangkok, in December 2000, (Ito and Urbani, 2001). In 2003 and 2005, I organized a symposium on “Echinococcosis” at the 4<sup>th</sup> FBPZ in Bangkok (Ito, 2004) and a symposium on “Taeniasis/Cysticercosis and Echinococcosis focused on Asia and the Pacific” in Asahikawa, Japan (Ito *et al*, 2006a). These two meetings, as well as seminars for the transfer of technology on taeniasis/cysticercosis and echinococcosis for three years during 2003-2005 were sponsored by a special fund for the promotion of science and technology from the Japanese Ministry of Education (MEXT) (Ito *et al*, 2006b). From 2003, we organized four seminars and invited 26 trainees and 14 lecturers from 14 countries. Programs of technical transfer are summarized in Table 2. All trainees prepared their own parasite, fecal, and/or serum samples from their home countries for molecular and serological analysis. Preparation of specific antigens for serology

Table 1

International workshop or symposium on cestode zoonoses organized by Asahikawa Medical College.

Year	Month/days	City, Country	Title	References
2000	Jul 16-18	Chengdu, China	Workshop on towards multilateral collaboration and cooperation for the control of echinococcosis, cysticercosis and other parasitic zoonoses in western China	Ito <i>et al</i> , 2003a
2000	Dec 6-8	Bangkok, Thailand	Symposium on Cysticercosis at the 3 <sup>rd</sup> FBPZ	Ito and Urbani, 2001
2003 <sup>a</sup>	Dec 2-4	Bangkok, Thailand	Symposium on Echinococcosis at the 4 <sup>th</sup> FBPZ	Ito, 2004
2005 <sup>a</sup>	Jul 4-8	Asahikawa, Japan	Symposium on Taeniasis/Cysticercosis and Echinococcosis focused on Asia and the Pacific	Ito <i>et al</i> , 2006b
2006 <sup>b</sup>	Nov 28-30	Bangkok, Thailand	Symposium on Cestode Zoonoses in Asia and the Pacific at the 5 <sup>th</sup> FBPZ	This issue
2007 <sup>b</sup>	Jun 12-18	Okinawa, Japan	Symposium on Cestode Zoonoses in the Pacific at the 21 <sup>st</sup> Pacific Scientific Congress	

<sup>a</sup>: Sponsored by a special fund for promotion of science and technology from Ministry of Education Japan (2003-2005).

<sup>b</sup>: Sponsored by the Asia-Africa Scientific Platform program of JSPS (2006-2008).

Table 2

The seminar programs for technical transfers useful for detection of taeniasis/cysticercosis, cystic echinococcosis (CE) and alveolar echinococcosis (AE).

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Serology:

- Cysticercosis: Both ELISA and Immunoblot using native glycoproteins (GPs), either purified by preparative isoelectric focusing or by affinity chromatography using polyclonal and monoclonal antibodies against GPs and recombinant chimeric antigens.
- Cystic echinococcosis: Both ELISA and Immunoblot using purified Antigen B from native hydatid cyst fluid, recombinant Antigen B8/1.
- Alveolar echinococcosis: Both ELISA and Immunoblot using purified Em18 and recombinant Em18.

Mitochondrial DNA:

- Multiplex PCR using a single egg, a single metacestode or a proglottid of adult worm for differentiation of three human *Taenia* species and two genotypes of *Taenia solium* and *Echinococcus* species.
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using their own homemade parasite materials was strongly recommended (Ito *et al*, 2006b,c).

#### INTRODUCTION TO THE SYMPOSIUM ON CESTODE ZONOSSES IN ASIA AND THE PACIFIC

The present symposium at the 5<sup>th</sup> FBPZ is sponsored by the Asia-Africa Scientific Platform (AASP) program with a grant from JSPS to me. This special fund is for the establishment of the research center for cestode zoonoses in Asia and Africa. Invited speakers are from Thailand (1), Indonesia (1), China (2), Japan (4), UK (1), and France (1) who are working actively based on their own original science and technology. The symposium is divided into two sessions, morning and afternoon. The former is focused on taeniasis/cysticercosis, which is chaired by Dr Malinee Anantaphruti and myself, and the latter is focused on echinococcosis and others, which is chaired by Prof Philip S Craig and myself. At the taeniasis/cysticercosis session, Dr Marcello O Sato will offer molecular tools for serology and mitochondrial DNA identification of taeniasis and cysticercosis (Sato *et al*, 2006). Dr Munehiro Okamoto re-launches the unresolved debate on Asian *Taenia*, based on mitochondrial and nuclear DNA studies (Ito *et al*, 2003b; Okamoto *et al* unpublished data). These topics give advanced tools in immunology

and molecular biology for basic and epidemiological studies on taeniasis/cysticercosis. Drs Tiaoying Li (Li *et al*, 2006), Toni Wandra (Wandra *et al*, 2006), Malinee Anantaphruti (Anantaphruti *et al*, 2007), and Durga Joshi (Joshi *et al*, unpublished data) present the current situation of taeniasis and cysticercosis in China, Indonesia, Thailand, and Nepal respectively. At the echinococcosis and others session, the present situation of echinococcosis in Asia is first overviewed by Prof PS Craig (Craig *et al*, unpublished data), and then molecular tools for epidemiology of alveolar echinococcosis is introduced by Dr J-M Bart (Bart *et al*, unpublished data), and serology using Antigen B 8 kDa subunits (AgB8/1-8/5) expressed differentially through developmental stages of *E. multilocularis* and *E. granulosus* is overviewed by Dr Wulamu Mamuti (Mamuti *et al*, 2005). Dr Yamasaki describes a molecular work on paraffin embedded histopathological specimens using *Taenia* spp (Yamasaki *et al*, 2006), *Echinococcus* spp, *Diphyllobothrium* spp, and *Spirometra* spp (Yamasaki *et al*, unpublished data).

On December 1, I give a talk on "The present situation of taeniasis and cysticercosis in Asia and the Pacific" at another symposium, the Joint International Tropical Medicine and Malaria (JITMM) 2006, as a brief overview of taeniasis/cysticercosis, and summary of the symposium on taeniasis/cysticercosis on November 29.

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In June 2007, we will organize another symposium on cestode zoonoses in the Pacific during emerging infectious disease sessions at the 21<sup>st</sup> Pacific Science Congress, in Okinawa. This symposium will also be sponsored by the AASP-JSPS with a grant to A Ito. I do expect that we in Asia and the Pacific can make our own contribution to science and technology using our own materials from our home countries. For such action, we need international collaborators who are willing to join us and work together with high appreciation of the local contribution.

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