The 45th Annual Japan-U.S. Joint Conference on Parasitic Diseases

Japan-U.S. Parasitic Diseases Panel Meeting

Japan-U.S. Cooperative Medical Science Program

National Institute of Infectious Diseases
Tokyo, Japan
January 10-11, 2011

Agenda - The 45th Annual Japan-U.S. Joint Conference on Parasitic Diseases

National Institute of Infectious Diseases, Tokyo, Japan

January 10-11, 2011

Monday, January 10th

10:00 **Welcome**
Tomoyoshi Nozaki, Organizer of the 45th Japan-U.S. Joint Conference
Opening remarks
Kenji Hirayama, Japanese Panel Chair
James Kazura, U.S. Panel Chair

10:10 **The Japan-U.S. Panel on Parasitic Diseases**
Malla R. Rao, National Institutes of Health, U.S.A. and Kenji Hirayama, Nagasaki University

[Schistosoma and Helminth-1] Chairs: Dan Colley and Kenji Hirayama

10:25 **SCORE – Comparative studies on how to control and eliminate *Schistosoma mansoni* and *S. haematobium***
Daniel G. Colley, University of Georgia, U.S.A.

10:43 **Expression and kinetics feature of thioredoxin glutathione reductase of *Schistosoma japonicum***
Chuanxin Yu, Jiangsu Institute of Parasitic Diseases, China

11:01 **Studies on the potential drug target *Sj* ANT and discovery of the compounds against *Schistosoma japonicum in vitro***
Hu Wei, Chinese Center for Disease Control and Prevention, China

11:19 **Immunogenetic analysis of the patients with early onset schistosomal fibrosis in Sorsogon Province, the Philippines**
Kenji Hirayama, Nagasaki University, Japan

11:32 **Surveys on newly found schistosomiasis endemic foci in Southeast Asian countries**
Hiroshi Ohmae, National Institute of Infectious Diseases, Japan

11:45 **Regulation of hepatic granuloma formation by IL-4/IL-13 in *S. japonicum* infected mice**
Takenori Seki, Tokyo Medical and Dental University, Japan

11:58 **Current situation of *Angiostrongylus cantonensis* and angiostrongyliasis in Japan: from geographic distribution to genotype diversity**
Toshihiro Tokiwa, Tokyo Medical and Dental University, Japan

12:11 **Genome and transcriptome sequencing of *Strongyloides venezuelensis*, an animal parasitic nematode**
Eiji Nagayasu, University of Miyazaki, Japan

12:24 **Pathogenesis of liver fluke-induced cholangiocarcinoma: an update**
Banchob Sripa, Khon Kaen University, Thailand

12:42 **LUNCH**

[Malaria-1] Chairs: James W. Kazura and Taka Tsuboi

14:00 ***Plasmodium vivax* subtelomeric transmembrane protein (PvSTP) localized at the Schüffner's dots of parasite-infected erythrocytes**
Osamu Kaneko, Nagasaki University, Japan

14:13 **New anti-malaria strategies: Cell death and fluorescent drugs**
Kevin SW Tan, National University of Singapore, Singapore

14:31 **Secretion and discharge of an alien protein in the saliva produced in a transgenic mosquito, *Anopheles stephensi***
Hiroyuki Matsuoka, Jichi Medical University, Japan

14:44 **Post-genome novel blood-stage malaria vaccine candidate discovery by wheat germ cell-free system**
Takafumi Tsuboi, Ehime University, Japan

14:57 **Plasmodial ortholog of *Toxoplasma gondii* rhoptry neck protein 3 is localized to the rhoptry body**
Daisuke Ito, Ehime University, Japan

15:10 **Prevention of cerebral malaria by Flt3 ligand during infection with *Plasmodium berghei* ANKA**
Katsuyuki Yui, Nagasaki University, Japan

15:23 **Progress toward the development of *Plasmodium falciparum* and *Plasmodium vivax* transmission blocking vaccines (TBV)**
Nirbhay Kumar, Tulane University, U.S.A.

15:41 **New antimalarial drug development research- current status of endoperoxide**
Hye-Sook Kim, Okayama University, Japan

15:54 **Population structure and transmission dynamics of *Plasmodium vivax* in the Republic of Korea based on microsatellite DNA**
Moritoshi Iwagami, National Center for Global Health and Medicine, Japan

16:07 ***In vitro* sensitivity of *Plasmodium falciparum* clinical isolates from the China-Myanmar border area to anti-malarial drugs and polymorphisms in associated genes**
Zhaoqing Yang, Kunming Medical University, China

16:25 **Genetic variations in Indian populations and its implications in genetic and infectious diseases**
Kumarasamy Thangaraj, Centre for Cellular and Molecular Biology, India

16:43 **BREAK**

[Leishmania and Trypanosoma] Chair: Kiyoshi Kita

17:00 **Involvement of $CD4^{+}Foxp3^{+}$ regulatory T cells in the persistent infection of *Leishmania donovani* in the liver of immunodeficiency *aly/aly* mice**
Saruda Tiwananthagorn, Hokkaido University, Japan

17:13 **Community-based intervention study using neem extract to control visceral leishmaniasis in Bangladesh**
Farhana Ferdousi, University of Tsukuba, Japan

17:26 **Efficacy of permethrin treated long-lasting insecticidal nets against phlebotomine sand flies**
Chizu Sanjoba, The University of Tokyo, Japan

17:39 **Characterization of Iron-sulfur clusters (ISC) machinery of *L. donovani* to understand the physiological role of Fe-S proteins in drug resistance**
Vahab Ali**,** RMRIMS, India

17:57 **A phylogeny of *Leishmania major* s.l. inferred from *nagt* sequences**
Sambuu Gantuya, The University of Tokyo, Japan

18:10 **Commonness and uniqueness of tandem repeat antigens in the trypanosomatid parasites**
Yasuyuki Goto, The University of Tokyo, Japan

18:23 **Structural analysis of glycerol kinase from African human trypanosomes**
Emmanuel Oluwadare Balogun, The University of Tokyo, Japan

18:36 **The crystal structure of the trypanosomal cyanide-insensitive alternative oxidase (TAO): a novel drug target for the African trypanosomiasis**
Tomoo Shiba, The University of Tokyo, Japan

18:49 **Structure-based design of selective and potent 5-substituted orotate derivatives inhibitors against *Trypanosoma cruzi* dihydroorotate dehydrogenase**
Daniel Ken Inaoka, The University of Tokyo, Japan

19:02 **Adjournment**

19:10 **Meeting reception**
—Cafeteria (located on the 1st floor of the building)

Tuesday, January 11th

[Amoeba and other protozoa] Chairs: William A. Petri and Tomo Nozaki

09:00 ***Regenerating gene* (REG) 1 as a marker and mediator of intestinal injury and repair**
Kristine M. Peterson, University of Virginia, U.S.A.

09:18 **Gene silencing of mitosomal proteins cause growth inhibition suggests essentiality of mitosomes in *Entamoeba histolytica***
Fumika Mi-ichi, National Institute of Infectious Diseases, Japan

09:31 **A study on the pathogenicity of *Entamoeba moshkovskii***
Shinjiro Hamano, Nagasaki University, Japan

09:44 **Structural and functional investigations on the attachment and phagocytosis of host cells by *Entamoeba histolytica***
Sunando Datta, Indian Institute of Science Education and Research, India

10:02 **Emerging trends in the aetiology of enteric parasites with special reference to change in *Entamoeba histolytica* infestation in Kolkata, India**
Sandipan Ganguly, National Institute of Cholera & Enteric Diseases, India

10:20 **Mechanism of trifluoromethionine resistance in *Entamoeba histolytica***
Gil M. Penuliar, National Institute of Infectious Diseases, Japan

10:33 **Amebiasis, tropical enteropathy, and genetic susceptibility to malnutrition: A journey with a surprising waypoint**
William A. Petri Jr., University of Virginia, U.S.A.

10:51 **BREAK**

11:05 **Metabolomic analysis during differentiation of enteric protozoan parasite *Entamoeba* into the infectious cyst stage**
Ghulam Jeelani, National Institute of Infectious Diseases, Japan

11:18 **Comparison of gene profiles between trophozoite and cyst of *Acanthamoeba* with microarray and KOG analysis**
Eun-Kyung Moon, Kyungpook National University, Korea

11:36 **Effects of glucose restriction on the cell cycle of *Trichomonas vaginalis***
Petrus Tang, Chang Gung University, Taiwan

11:54 **Molecular characterization of *Trichomonas vaginalis* isolates in the Philippines**
Windell L. Rivera, University of the Philippines, Philippines

12:12 **Functional identification of end-binding 1 (EB1) protein of *Giardia lamblia* by complementation and interactome analyses**
Soon-Jung Park, Yonsei University College of Medicine, Korea

12:30 **LUNCH**

[Apicomplexan parasites] Chair: Shigeyuki Kano

13:50 **Spherical body protein 4 is a new serological antigen for the global detection of *Babesia bovis* infection in cattle**
Ikuo Igarashi, Obihiro University of Agriculture and Veterinary Medicine, Japan

14:03 **Characterization of *Toxoplasma gondii* transcriptome with a massive parallel sequencing method**
Junya Yamagishi, Obihiro University of Agriculture and Veterinary Medicine, Japan

14:16 **The effect of host GPI-anchor to *Toxoplasma gondii* infection**
Michiru Tahara, National Institute of Infectious Diseases, Japan

14:29 **Plant hormone cytokinins: Elucidating their role in *Toxoplasma gondii***
Syed Bilal Ahmad Andrabi, National Institute of Infectious Diseases, Japan

14:42 **Toxoplasmosis in mainland China**
Xiao-Guang Chen, Southern Medical University, China

[Malaria-2] Chair: Malla R. Rao

15:00 **The Southwest Pacific NIH International Center of Excellence for Malaria Research**
James W. Kazura, Case Western Reserve University, U.S.A.

15:18 **The International Centers for Excellence in Malaria Research**
Malla R. Rao, National Institutes of Health, U.S.A.

15:36 **BREAK**

15:50 ***Plasmodium vivax*: Significance and research priorities highlighted by iVax community**
Jetsumon Sattabongkot Prachumsri, AFRIMS, Thailand

16:08 **China-Thailand-Myanmar ICEMR Program**
Guiyun Yan, University of California at Irvine, U.S.A.

[Helminth-2] Chair: Daniel G. Colley

16:26 **Cestode zoonoses in Asia: towards evidence based control**
Akira Ito, Asahikawa Medical University, Japan

16:39 **An immunochromatographic test for diagnosis of alveolar echinococcosis**
Yasuhito Sako, Asahikawa Medical University, Japan

16:52 **Usefulness of serological and molecular tools for detection of neurologic parasitic zoonoses in rural areas of southwest Cameroon: toxocariasis, cysticercosis and paragonimiasis**
Agathe Nkouawa, Asahikawa Medical University, Japan

17:05 **Phosphagen kinases of trematodes: possible chemotherapeutic targets**
Takeshi Agatsuma, Kochi University, Japan

17:18 **Evaluation of urine-based IgG4 ELISA for detecting lymphatic filarial infection and the development of a visual diagnostic method with urine samples**
Eisaku Kimura, Aichi Medical University, Japan

17:31 **Basophils are essential for rapidly expelling *Strongyloides venezuelensis***
Makoto Matsumoto, Hyogo College of Medicine, Japan

17:44 **Conclusion of Japan-U.S. Joint Conference on Parasitic Diseases**

Intestinal and Free-Living Protozoan Parasites Meeting

National Institute of Infectious Diseases
Tokyo, Japan
January 12, 2011

Agenda- Intestinal and Free-Living Protozoan Parasites Meeting
National Institute of Infectious Diseases, Tokyo, Japan
January 12, 2011

Wednesday, January 12th

10:00 Opening remarks
Tomoyoshi Nozaki

1. Iron-sulfur clusters assembly of *Entamoeba histolytica*: Purification and characterization cytosolic Fe-S clusters assembly components
Vahab Ali, RMRIMS, India

2. Molecular insights into the amoebic retromer complex
Sunando Datta, Indian Institute of Science Education and Research, India

3. *Entamoeba invadens*: Transcriptome analysis during encystation
Aleyla Escueta- De Cadiz, National Institute of Infectious Diseases, Japan

4. Trafficking mechanism of phagosomal enzymes in *Entamoeba histolytica*
Atsushi Furukawa, National Institute of Infectious Diseases, Japan

5. Emerging trends in the aetiology of enteric parasites with special reference to change in *Entamoeba histolytica* infestation in Kolkata, India
Sandipan Ganguly, National Institute of Cholera & Enteric Diseases, India

6. A study on the pathogenicity of *Entamoeba moshkovskii*
Shinjiro Hamano, Nagasaki University, Japan

7. Metabolomic analysis of sulfur containing amino acid metabolism in *E. histolytica*
Afzal Husain, National Institute of Infectious Diseases, Japan

8. Development of nucleic acid amplification assays for highly sensitive detection of *Cryptosporidium* in water samples
Shinji Izumiyama, National Institute of Infectious Diseases, Japan

9. Analysis of the protein import machinery in the *Entamoeba* mitochondrial remnant
Takashi Makiuchi, National Institute of Infectious Diseases, Japan

10. Gene silencing of mitosomal proteins cause growth inhibition suggests essentiality of mitosomes in *Entamoeba histolytica*
Fumika Mi-ichi, National Institute of Infectious Diseases, Japan

11. Autophagy related proteins in encystation of *Acanthamoeba*
Eun-Kyung Moon, Kyungpook National University, Korea

12. Functional identification of end-binding 1 (EB1) protein of *Giardia lamblia* by complementation and interactome analyses
Soon-Jung Park, Yonsei University College of Medicine, Korea

13. *Regenerating gene* (REG) 1 as a marker and mediator of intestinal injury and repair
Kristine M. Peterson, University of Virginia, U.S.A.

14. 1) Role of acid vesicles in host cell killing by *E. histolytica*
2) A genome wide lentivirus shRNA library screen for host genes controlling susceptibility to *E. histolytica* killing
3) Genotyping of clinical isolates of *E. histolytica*
4) Role of the leptin receptor in innate resistance to amebiasis
5) Transmembrane kinases and regulation of *E. histolytica* phagocytosis
6) A negative selectable marker for *E. histolytica* and attempts to integrate foreign DNA in *E. histolytica*
7) A virulence gene program induced by URE3-BP
William A. Petri, University of Virginia, U.S.A.

15. Detection and subtype identification of *Blastocystis* isolates from wastewater samples in the Philippines
Windell L. Rivera, University of the Philippines, Philippines

16. Diversity of vesicular trafficking in phagocytic protozoa and significance of traffic in *Entamoeba histolytica*
Yumiko Saito-Nakano, National Institute of Infectious Diseases, Japan

17. Subtype–associated variations in *Blastocystis* pathobiology
Kevin SW Tan, National University of Singapore, Singapore

18. Functional genomics of *Acanthamoeba castellani* Neff
Petrus Tang, Chang Gung University, Taiwan

19. Comprehensive identification of protozoan parasites: distribution of species and genotypes in Sumba Island, Indonesia
Masaharu Tokoro, Kanazawa University, Japan

20. 18S rDNA sequence typing on the clinical isolates of *Acanthamoeba* in Japan
Kenji Yagita, National Institute of Infectious Diseases, Japan