e-ASIA Science Talk Luncheon
at the'16th International Conference on Emerging Infectious Diseases (EID)
in the Pacific Rim'
Sponsored by Japan Science and Technology Agency (JST)
Monday 10th February 2014

Discussion Report

Parasitic diseases (e.g., malaria, schistosomiasis, leishamaniasis) Group:

1. What are the current 'hot topics' of research and their significance within your specialism?

- Studies to elucidate the molecular basis of pathogen resistance to various anti-pathogen, such as antimalarials, insecticides or repellents.

- Antimicrobial resistance, particularly for those pathogens that have limited treatment/prevention options.

-Focus on development of new drugs, vaccines and diagnostics. Vaccine development for disease of global heath, pandemic or domestic need (eg. TB, Malaria, HIV, Dengue, Influenza, RSV) Focus on assisting researchers in pre-clinical and clinical development.

-Focus on under 5 years of age child health in the East Asian region where the major problems are not the ATM diseases but instead diarrhea and pneumonia. Key areas in diarrhea research include: (a) studying why the rotavirus vaccine is only 30-50% effective in low income settings; (b) understanding the natural history and pathogenesis of cryptosporidiosis that is likely the second leading cause of moderate to severe diarrhea; (c) determine the contribution of C. difficile to diarrhea in low-income countries; and (d) study of carbapenemase resistant enterobacteriaceae [CRE].

2. Within the field of 'Infectious Diseases', what areas/diseases are prioritized by your country?

<Indonesia>

-Tuberculosis, Malaria, HIV, Pneumonia and Dengue.

Several other new emerging diseases such as avian flu, mosquito-born diseases are currently managed through ad hoc committees

<U.S.>

-HIV, TB, Malaria, Influenza, Dengue and Gram negative bacteria with high risk of development of antimicrobial resistance.

-C. difficile (in the CDC top 3 threats to health)

-Carbapenemase-resistant enterobacteriacea (in the CDC top 3 threats to health)

-Cryptosporidia (see Lancet paper of GEMS study, forwarded to you under separate email)

-Oral vaccine failure including Rotarix and OPV

3. What national or regional programs/initiatives/plans there are in your country that are relevant to research within your specialism?

<Indonesia>

- As the National budget for research is limited, partnering with international research institution are strongly encouraged to attract competitive research grant, such as Gates Foundation etc.

<U.S.>

- There are multiple programs funded and initiatives in development that focus the USG resources in the direction of the priorities stated. Some which are relevant to this program include;

ICEMR – International Centers of Excellence in Malaria Research

CEIRS - Centers of Excellence in Influenza Research and Surveillance

ICIDR - International Centers of Infectious Disease Research

TMRC – Tropical Medicine Research Centers

TBRU – TB Research Units

ARLG – Antimicrobial Resistance Leadership Group

- Partnering with the NIH and Gates Foundation would be attractive.

4. What potential areas for multi-lateral research cooperation can be identified between the countries represented at your discussion? What research areas within your specialism would benefit from multi-lateral joint research?

- Indonesia currently poses massive deforestation in many of its island for the reason of agriculture and human re-settlements. This activity brings along huge impact on human/animal diseases distribution in the area. We are interested to undertake a multidisciplinary research initiative to explore the impact of deforestation on human and animal diseases in Kalimantan and other island. This initiative shall involve experts in environmental sciences, infectious diseases, public health and biologists.

- An appealing approach would be the leveraging of some of the above Units/Centers that are multinational already, to include the addition of partners under the e-ASIA program. This would enrich an ongoing multi-lateral effort as well as provide a breadth and depth of knowledge to the e-Asia partners. A second approach would be to supplement grants for investigators that already have funding in a particular area of interest to e-ASIA partners.

- Oral vaccine failure, diarrhea due to rotavirus and cryptosporidia, and CRE and C. difficile.